

CHAPTER

46

**INFORMATION
SYSTEMS**



777-200/300 FAULT ISOLATION MANUAL

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6	BLANK		220	Sep 05/2016		256	Sep 05/2016	
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202	May 05/2015		238	Sep 05/2016		274	Sep 05/2016	
203	Sep 05/2016		239	Sep 05/2016		275	Sep 05/2016	
204	Sep 05/2016		240	Sep 05/2016		276	Sep 05/2016	
205	Sep 05/2016		241	Sep 05/2016		O 277	Sep 05/2017	
206	May 05/2015		242	Sep 05/2016		O 278	Sep 05/2017	
207	May 05/2015		O 243	Sep 05/2017		O 279	Sep 05/2017	
208	May 05/2015		O 244	Sep 05/2017		280	Sep 05/2016	
209	May 05/2015		O 245	Sep 05/2017		281	Sep 05/2016	
210	May 05/2015		O 246	Sep 05/2017		282	Sep 05/2016	
211	Sep 05/2016		O 247	Sep 05/2017		O 283	Sep 05/2017	
212	Sep 05/2016		O 248	Sep 05/2017		O 284	Sep 05/2017	
213	Sep 05/2016		O 249	Sep 05/2017		O 285	Sep 05/2017	
214	Sep 05/2016		O 250	Sep 05/2017		O 286	Sep 05/2017	
215	Sep 05/2016		O 251	Sep 05/2017		O 287	Sep 05/2017	
216	Sep 05/2016		O 252	Sep 05/2017		O 288	Sep 05/2017	
217	Sep 05/2016		O 253	Sep 05/2017		O 289	Sep 05/2017	
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O 295	Sep 05/2017		217	May 05/2017		253	May 05/2017	
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298.1	Sep 05/2016		221	May 05/2017		257	May 05/2017	
298.2	Sep 05/2016		222	May 05/2017		258	May 05/2017	
298.3	Sep 05/2016		223	May 05/2017		259	May 05/2017	
298.4	Sep 05/2016		224	May 05/2017		260	May 05/2017	
298.5	Sep 05/2016		225	May 05/2017		O 261	Sep 05/2017	
298.6	Sep 05/2016		226	May 05/2017		O 262	Sep 05/2017	
298.7	Sep 05/2016		227	May 05/2017		O 263	Sep 05/2017	
298.8	Sep 05/2016		228	May 05/2017		264	May 05/2017	
298.9	Sep 05/2016		229	May 05/2017		O 265	Sep 05/2017	
298.10	BLANK		230	May 05/2017		266	May 05/2017	
46-11 TASK SUPPORT			231	May 05/2017		267	May 05/2017	
301	May 05/2015		232	May 05/2017		O 268	Sep 05/2017	
302	Jan 05/2013		233	May 05/2017		O 269	Sep 05/2017	
303	Jan 05/2014		234	May 05/2017		O 270	Sep 05/2017	
304	Jan 05/2014		235	May 05/2017		O 271	Sep 05/2017	
46-13 TASKS			236	May 05/2017		O 272	Sep 05/2017	
201	May 05/2017		237	May 05/2017		O 273	Sep 05/2017	
202	May 05/2017		238	May 05/2017		O 274	Sep 05/2017	
203	May 05/2017		239	May 05/2017		O 275	Sep 05/2017	
204	May 05/2017		240	May 05/2017		O 276	Sep 05/2017	
205	May 05/2017		241	May 05/2017		O 277	Sep 05/2017	
206	May 05/2017		242	May 05/2017		O 278	Sep 05/2017	
207	May 05/2017		243	May 05/2017		O 279	Sep 05/2017	
208	May 05/2017		244	May 05/2017		O 280	Sep 05/2017	
209	May 05/2017		245	May 05/2017		O 281	Sep 05/2017	
210	May 05/2017		246	May 05/2017		O 282	Sep 05/2017	
211	May 05/2017		247	May 05/2017		O 283	Sep 05/2017	
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O 286	Sep 05/2017		215	May 05/2017		O 251	Sep 05/2017	
O 287	Sep 05/2017		216	May 05/2017		O 252	Sep 05/2017	
O 288	Sep 05/2017		217	May 05/2017		O 253	Sep 05/2017	
O 289	Sep 05/2017		218	May 05/2017		O 254	Sep 05/2017	
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O 292	Sep 05/2017		221	May 05/2017		O 257	Sep 05/2017	
O 293	Sep 05/2017		O 222	Sep 05/2017		O 258	Sep 05/2017	
O 294	Sep 05/2017		O 223	Sep 05/2017		O 259	Sep 05/2017	
O 295	Sep 05/2017		224	May 05/2017		O 260	Sep 05/2017	
O 296	Sep 05/2017		O 225	Sep 05/2017		O 261	Sep 05/2017	
O 297	Sep 05/2017		O 226	Sep 05/2017		O 262	Sep 05/2017	
O 298	Sep 05/2017		O 227	Sep 05/2017		O 263	Sep 05/2017	
O 298.1	Sep 05/2017		O 228	Sep 05/2017		O 264	Sep 05/2017	
O 298.2	Sep 05/2017		O 229	Sep 05/2017		O 265	Sep 05/2017	
O 298.3	Sep 05/2017		O 230	Sep 05/2017		O 266	Sep 05/2017	
O 298.4	Sep 05/2017		O 231	Sep 05/2017		O 267	Sep 05/2017	
O 298.5	Sep 05/2017		232	May 05/2017		O 268	Sep 05/2017	
O 298.6	Sep 05/2017		O 233	Sep 05/2017		O 269	Sep 05/2017	
A 298.7	Sep 05/2017		O 234	Sep 05/2017		O 270	Sep 05/2017	
A 298.8	BLANK		235	May 05/2017		46-13 TASKS Config 3		
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202	May 05/2017		O 238	Sep 05/2017		203	Sep 05/2016	
203	May 05/2017		O 239	Sep 05/2017		204	Sep 05/2016	
204	May 05/2017		O 240	Sep 05/2017		205	Sep 05/2016	
205	May 05/2017		O 241	Sep 05/2017		206	Sep 05/2016	
206	May 05/2017		O 242	Sep 05/2017		207	Sep 05/2016	
207	May 05/2017		O 243	Sep 05/2017		208	Sep 05/2016	
208	May 05/2017		O 244	Sep 05/2017		209	Sep 05/2016	
209	May 05/2017		O 245	Sep 05/2017		210	Sep 05/2016	
210	May 05/2017		O 246	Sep 05/2017		211	Sep 05/2016	
211	May 05/2017		O 247	Sep 05/2017		212	Sep 05/2016	
212	May 05/2017		O 248	Sep 05/2017		213	Sep 05/2016	
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216	Sep 05/2016		O 252	Sep 05/2017		202	May 05/2015	C
217	Sep 05/2016		O 253	Sep 05/2017		203	May 05/2015	C
218	Sep 05/2016		O 254	Sep 05/2017		204	May 05/2015	C
219	Sep 05/2016		O 255	Sep 05/2017		205	May 05/2015	C
O 220	Sep 05/2017		O 256	Sep 05/2017		206	May 05/2015	C
221	Sep 05/2016		O 257	Sep 05/2017		207	May 05/2015	C
222	Sep 05/2016		O 258	Sep 05/2017		208	May 05/2015	C
223	Sep 05/2016		O 259	Sep 05/2017		209	May 05/2015	C
224	Sep 05/2016		O 260	Sep 05/2017		210	May 05/2015	C
225	Sep 05/2016		O 261	Sep 05/2017		211	May 05/2015	C
226	Sep 05/2016		O 262	Sep 05/2017		212	May 05/2015	C
227	Sep 05/2016		O 263	Sep 05/2017		213	May 05/2015	C
228	Sep 05/2016		O 264	Sep 05/2017		214	May 05/2015	C
229	Sep 05/2016		265	Sep 05/2016		215	May 05/2015	C
230	Sep 05/2016		266	Sep 05/2016		216	May 05/2015	C
231	Sep 05/2016		O 267	Sep 05/2017		217	May 05/2015	C
232	May 05/2017		268	Sep 05/2016		218	May 05/2015	C
233	May 05/2017		269	Sep 05/2016		219	May 05/2015	C
234	Sep 05/2016		O 270	Sep 05/2017		220	May 05/2015	C
235	May 05/2017		271	Sep 05/2016		221	May 05/2015	C
236	Sep 05/2016		272	Sep 05/2016		222	May 05/2015	C
237	May 05/2017		O 273	Sep 05/2017		223	Sep 05/2015	C
238	May 05/2017		O 274	Sep 05/2017		224	Sep 05/2015	C
O 239	Sep 05/2017		O 275	Sep 05/2017		225	Sep 05/2015	C
O 240	Sep 05/2017		O 276	Sep 05/2017		226	Sep 05/2015	C
O 241	Sep 05/2017		O 277	Sep 05/2017		227	Sep 05/2015	C
O 242	Sep 05/2017		O 278	Sep 05/2017		228	Sep 05/2015	C
O 243	Sep 05/2017		O 279	Sep 05/2017		229	Sep 05/2015	C
O 244	Sep 05/2017		O 280	Sep 05/2017		230	Sep 05/2015	C
O 245	Sep 05/2017		O 281	Sep 05/2017		231	May 05/2015	C
O 246	Sep 05/2017		O 282	Sep 05/2017		232	May 05/2015	C
O 247	Sep 05/2017		O 283	Sep 05/2017		233	May 05/2015	C
O 248	Sep 05/2017		O 284	Sep 05/2017		234	May 05/2015	C
O 249	Sep 05/2017		O 285	Sep 05/2017		235	May 05/2015	C
O 250	Sep 05/2017		286	BLANK		236	May 05/2015	C

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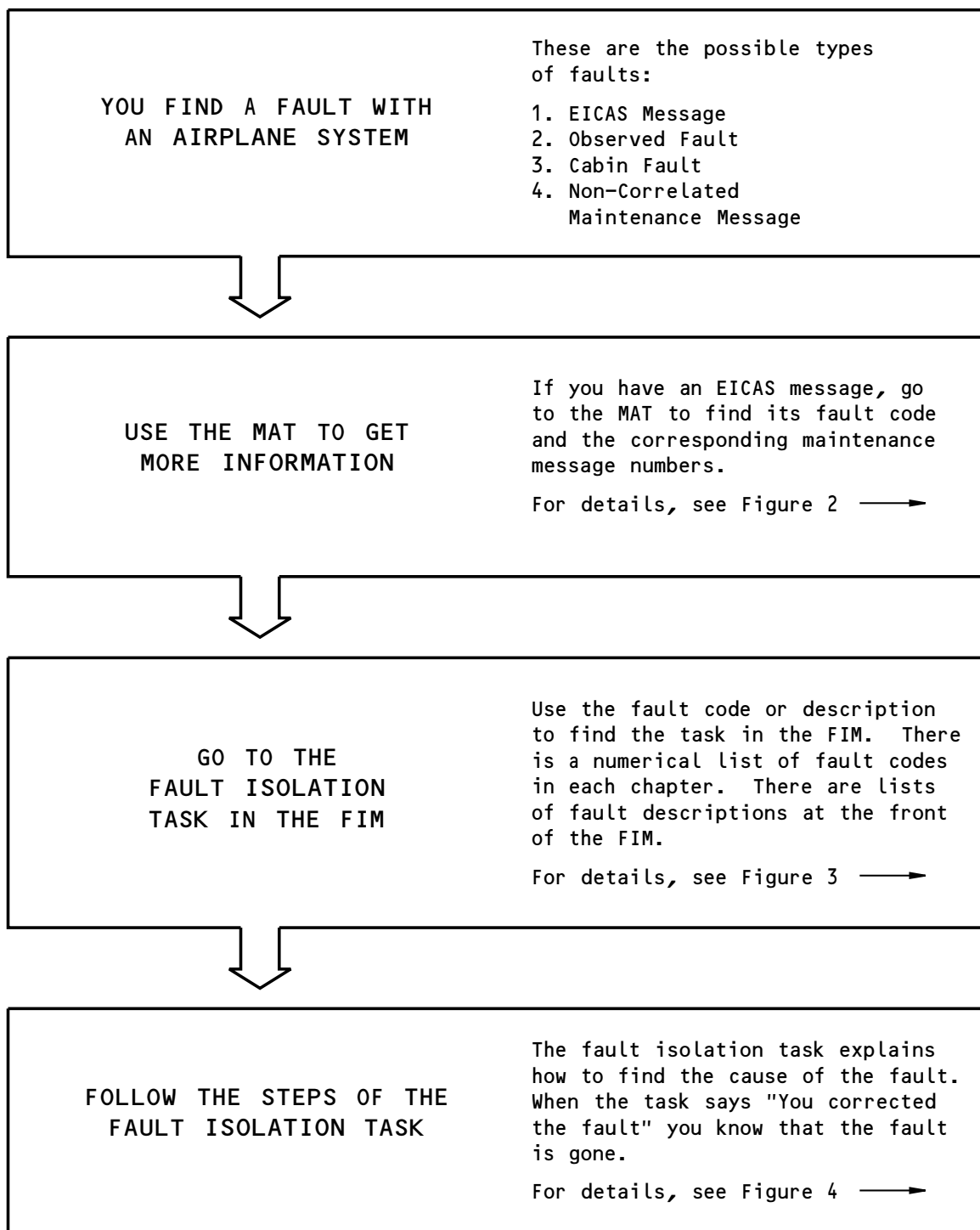
Subject/Page	Date	COC	Subject/Page	Date	COC	Subject/Page	Date	COC
46-19 TASKS (cont)			46-19 TASKS (cont)					
237	May 05/2015	C	273	May 05/2015	C			
238	May 05/2015	C	274	May 05/2015	C			
239	May 05/2015	C	275	May 05/2015	C			
240	May 05/2015	C	276	May 05/2015	C			
241	May 05/2015	C	277	May 05/2015	C			
242	May 05/2015	C	278	May 05/2015	C			
243	May 05/2015	C	279	May 05/2015	C			
244	May 05/2015	C	280	May 05/2015	C			
245	May 05/2015	C						
246	May 05/2015	C						
247	May 05/2015	C						
248	May 05/2015	C						
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263	May 05/2015	C						
264	May 05/2015	C						
265	May 05/2015	C						
266	May 05/2015	C						
267	May 05/2015	C						
268	May 05/2015	C						
269	May 05/2015	C						
270	May 05/2015	C						
271	May 05/2015	C						
272	May 05/2015	C						

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E84424 S0000132469_V1

Basic Fault Isolation Process
Figure 1

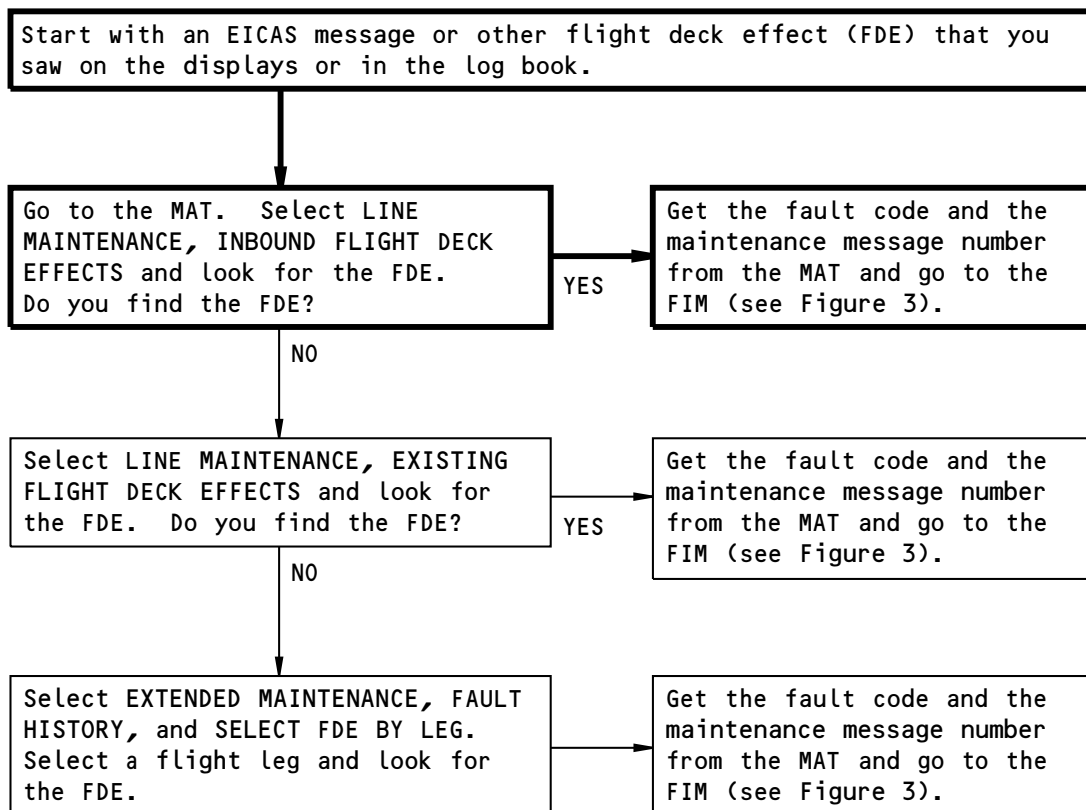
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NOTE: The bold lines show the most common path.

E84425 S0000132475_V1

Getting Fault Information from the MAT
Figure 2

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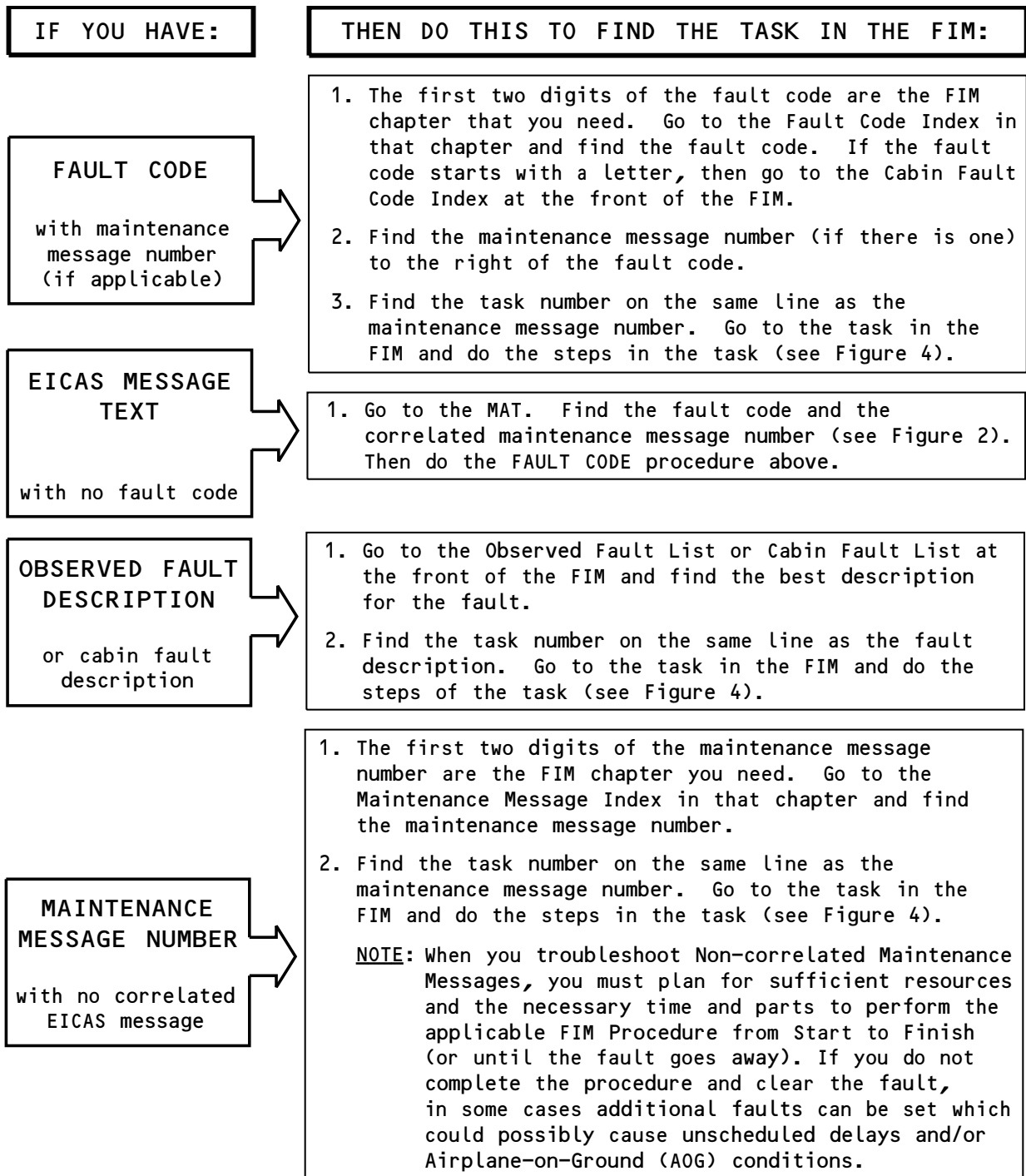
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E84427 S0000132476_V2

Finding the Fault Isolation Task in the FIM
Figure 3

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ASSUMED CONDITIONS AT START OF TASK

- External electrical power is ON
- Hydraulic power and pneumatic power are OFF
- Engines are shut down
- No equipment in the system is deactivated

INITIAL EVALUATION PARAGRAPH

- The Initial Evaluation paragraph at the start of the task helps you determine whether you can detect the fault right now.
- If you cannot detect the fault right now, then the task cannot isolate the fault and the Initial Evaluation paragraph will say that there was an intermittent fault.
- If you have an intermittent fault, you must use your judgement (and follow your airline's policy) to decide which components to replace. Then monitor the airplane to see if the fault happens again on subsequent flights.

FAULT ISOLATION STEPS

- The FIM task steps are presented in a specified order. "The If... then" statements will guide you along a logical path. But if you do not plan to follow the FIM task exactly, make sure that you read it before you start to isolate the fault. Some FIM procedures start with important steps that have an effect on the other steps in the procedure.
- When you are at the endpoint of the path, the step says "You corrected the fault." Complete the step and exit the procedure.
- The Recommended Maintenance Action that shows on the MAT for the maintenance message gives a list of possible causes in order by probability of failure. In the FIM procedure, the possible causes can be in a different order from the MAT.

WIRING CHECKS

When a step says "Do a wiring check", do these three types of electrical checks for the specified contacts (pins):

- continuity from contact to contact
- shorts between the contacts
- shorts from each contact to ground

E84428 S0000132477_V3

Doing the Fault Isolation Task
Figure 4

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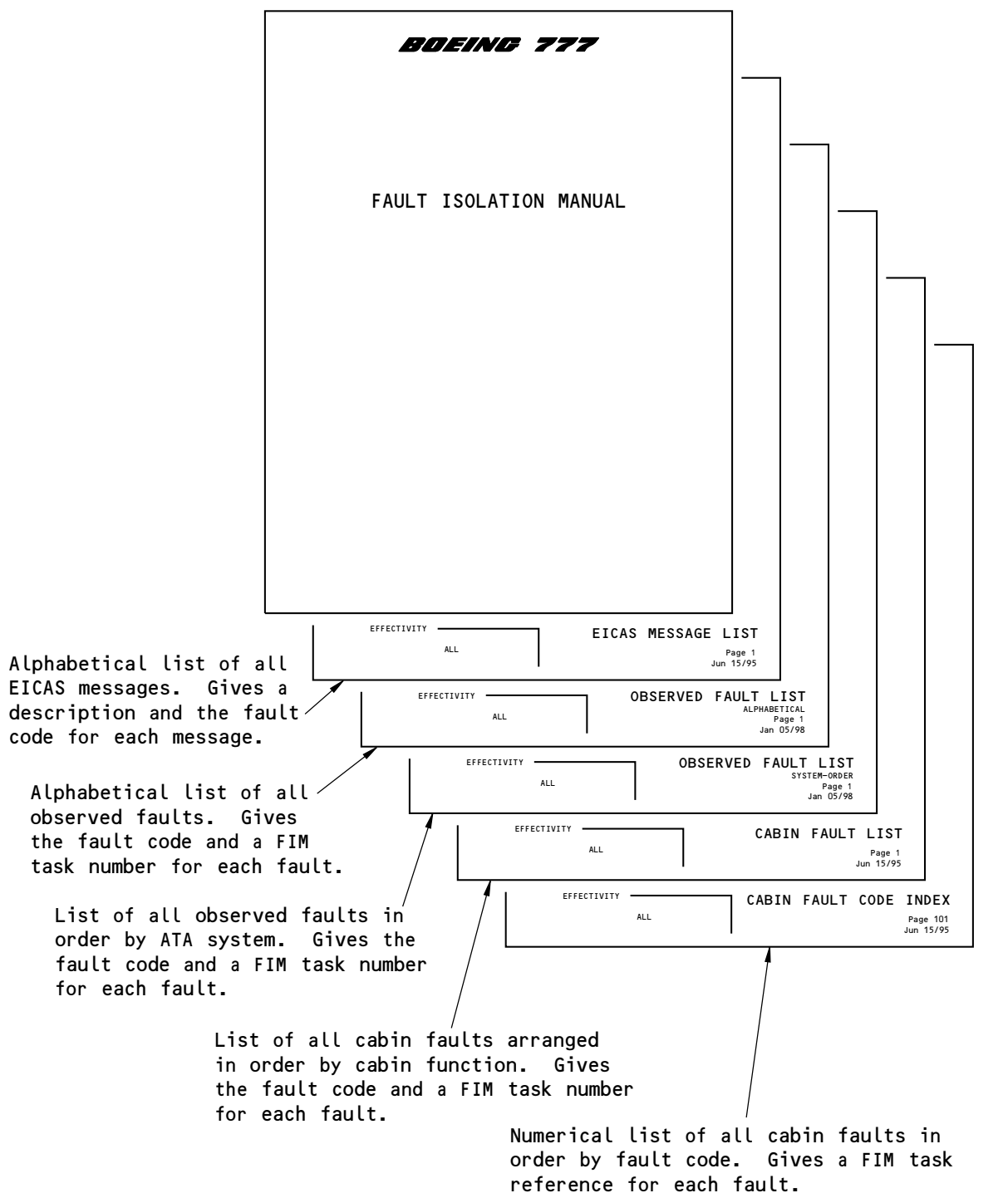
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F39750 S0000132478_V1

Subjects at Front of FIM
Figure 5

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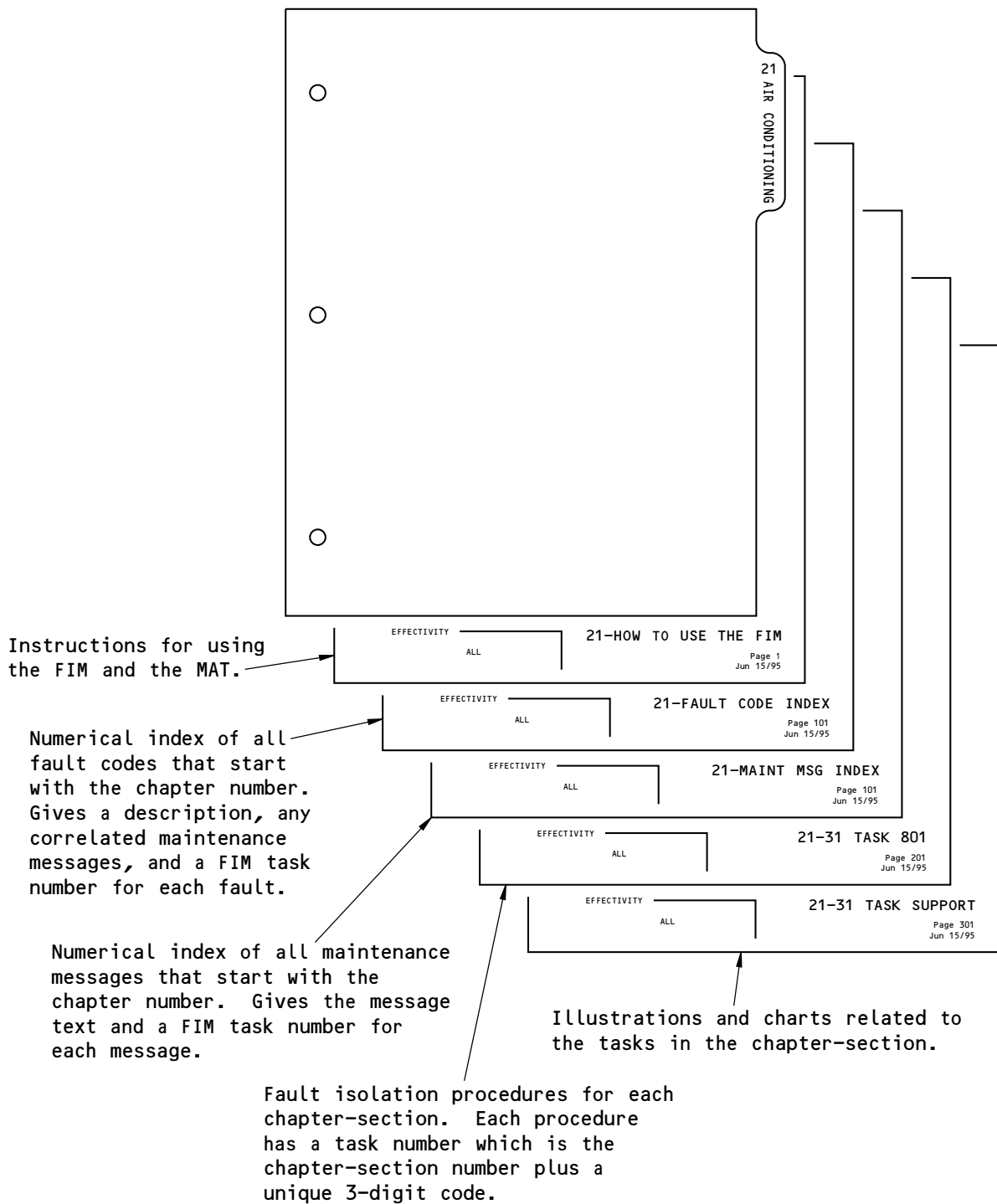
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F39837 S0000132479_V1

Subjects in Each FIM Chapter
Figure 6

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
461 301 00	Onboard Network System: a Maintenance Message shows on the EXISTING FAULTS Page.		46-13 TASK 801 or 46-13 TASK 901 or 46-13 TASK A01
461 605 31	Electronic flight bag: OP SW FAILURE shows on display - captain's.		46-11 TASK 894
461 605 32	Electronic flight bag: OP SW FAILURE shows on display - first officer's.		46-11 TASK 894
461 606 31	Electronic flight bag: message shows on Fault Log page - captain's.		46-11 TASK 801
461 606 32	Electronic flight bag: message shows on Fault Log page - first officer's.		46-11 TASK 801
461 607 31	Electronic flight bag: EFB MAINTENANCE page buttons LOAD MODE and SHUTDOWN operate, but all other buttons do not respond when selected - captain's.		46-11 TASK 892
461 607 32	Electronic flight bag: EFB MAINTENANCE page buttons LOAD MODE and SHUTDOWN operate, but all other buttons do not respond when selected - first officer's.		46-11 TASK 892
461 608 31	Electronic flight bag: MAIN MENU application buttons do not respond when selected - captain's.		46-11 TASK 891
461 608 32	Electronic flight bag: MAIN MENU application buttons do not respond when selected - first officer's.		46-11 TASK 891
461 609 31	Electronic flight bag: MAIN MENU application buttons (except AIRPORT MAP) do not show - captain's.		46-11 TASK 890
461 609 32	Electronic flight bag: MAIN MENU application buttons (except AIRPORT MAP) do not show - first officer's.		46-11 TASK 890
461 610 31	Electronic flight bag: NO VIDEO shows on display when application (PERFORMANCE, CHARTS, etc.) selected - captain's.		46-11 TASK 888
461 610 32	Electronic flight bag: NO VIDEO shows on display when application (PERFORMANCE, CHARTS, etc.) selected - first officer's.		46-11 TASK 888
461 611 31	Electronic flight bag: Application key does not operate when pushed - captain's.		46-11 TASK 860
461 611 32	Electronic flight bag: Application key does not operate when pushed - first officer's.		46-11 TASK 860
461 612 31	Electronic flight bag: backlight control problem - captain's.		46-11 TASK 803

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
461 612 32	Electronic flight bag: backlight control problem - first officer's.		46-11 TASK 803
461 613 31	Electronic flight bag: brightness control problem - captain's.		46-11 TASK 803
461 613 32	Electronic flight bag: brightness control problem - first officer's.		46-11 TASK 803
461 614 31	Electronic flight bag: display blank - captain's.		46-11 TASK 803
461 614 32	Electronic flight bag: display blank - first officer's.		46-11 TASK 803
461 615 31	Electronic flight bag: display is dim or out of focus - captain's.		46-11 TASK 803
461 615 32	Electronic flight bag: display is dim or out of focus - first officer's.		46-11 TASK 803
461 616 31	Electronic flight bag: function key does not operate when pushed - captain's.		46-11 TASK 860
461 616 32	Electronic flight bag: function key does not operate when pushed - first officer's.		46-11 TASK 860
461 617 31	Electronic flight bag: NO INPUT shows on display for more than 3 minutes after power-up - captain's.		46-11 TASK 886
461 617 32	Electronic flight bag: NO INPUT shows on display for more than 3 minutes after power-up - first officer's.		46-11 TASK 886
461 618 31	Electronic flight bag: NO VIDEO shows on display for more than 3 minutes after power-up - captain's.		46-11 TASK 887
461 618 32	Electronic flight bag: NO VIDEO shows on display for more than 3 minutes after power-up - first officer's.		46-11 TASK 887
461 654 31	Electronic flight bag: Display unit responds only to XFR bezel key - captain's.		46-11 TASK 861
461 654 32	Electronic flight bag: Display unit responds only to XFR bezel key - first officer's.		46-11 TASK 861
461 700 31	Electronic flight bag: DU or DU FIBER FAIL shows on display unit - captain's.		46-11 TASK 893
461 700 32	Electronic flight bag: DU or DU FIBER FAIL shows on display unit - first officer's.		46-11 TASK 893
461 711 31	Electronic flight bag: EFB MAINTENANCE page button COMM MAINTENANCE does not show or does not operate - captain's.		46-11 TASK 958
461 711 32	Electronic flight bag: EFB MAINTENANCE page button COMM MAINTENANCE does not show or does not operate - first officer's.		46-11 TASK 958

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
461 712 31	Electronic flight bag: EFB MAINTENANCE page button EXTERNAL DATALOAD does not show or does not operate - captain's.		46-11 TASK 968
461 712 32	Electronic flight bag: EFB MAINTENANCE page button EXTERNAL DATALOAD does not show or does not operate - first officer's.		46-11 TASK 968
461 714 31	Electronic flight bag: COMM MAINTENANCE page shows NOT INSTALLED for more than 2 minutes - captain's.		46-11 TASK 959
461 714 32	Electronic flight bag: COMM MAINTENANCE page shows NOT INSTALLED for more than 2 minutes - first officer's.		46-11 TASK 959
461 721 31	Electronic flight bag: LOAD MODE page button REBOOT TO MAIN does not change page to MAIN MENU when pushed - captain's.		46-11 TASK 966
461 721 32	Electronic flight bag: LOAD MODE page button REBOOT TO MAIN does not change page to MAIN MENU when pushed - first officer's.		46-11 TASK 966
461 723 31	Electronic flight bag: CONFIG COMPARE function shows IN PROGRESS for more than 30 seconds - captain's.		46-11 TASK 973
461 723 32	Electronic flight bag: CONFIG COMPARE function shows IN PROGRESS for more than 30 seconds - first officer's.		46-11 TASK 973
461 724 31	Electronic flight bag: CONFIG COMPARE function shows SOFTWARE MATCH UNABLE - captain's.		46-11 TASK 973
461 724 32	Electronic flight bag: CONFIG COMPARE function shows SOFTWARE MATCH UNABLE - first officer's.		46-11 TASK 973
461 725 31	Electronic flight bag: CONFIG COMPARE function shows THESE PARTS FOUND ONLY ON ONE SIDE - captain's.		46-11 TASK 973
461 725 32	Electronic flight bag: CONFIG COMPARE function shows THESE PARTS FOUND ONLY ON ONE SIDE - first officer's.		46-11 TASK 973
461 726 31	Electronic flight bag: SYSTEM CONFIG page shows software part with cyan or amber colored text - captain's.		46-11 TASK 974
461 726 32	Electronic flight bag: SYSTEM CONFIG page shows software part with cyan or amber colored text - first officer's.		46-11 TASK 974

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FAULT CODE	FAULT DESCRIPTION	MAINT MSG	GO TO FIM TASK
461 727 31	Electronic flight bag: data download failed - captain's.		46-11 TASK 975
461 727 32	Electronic flight bag: data download failed - first officer's.		46-11 TASK 975
461 728 31	Electronic flight bag: EFB MAINTENANCE page button PRINT TEST TEXT does not print - captain's.		46-11 TASK 977
461 728 32	Electronic flight bag: EFB MAINTENANCE page button PRINT TEST TEXT does not print - first officer's.		46-11 TASK 977
461 821 00	Onboard network system maintenance application: message shows on NFS Messages page.		46-13 TASK 801 or 46-13 TASK 901 or 46-13 TASK A01
461 823 00	Onboard network system maintenance application: web browser shows error message - HTTP ERROR: 404.		46-13 TASK 843 or 46-13 TASK A57
461 824 00	Onboard network system maintenance application: web browser shows error message - NetworkTimeout.		46-13 TASK 843 or 46-13 TASK A57
461 825 00	Onboard network system maintenance application: web browser shows error message - No connection to the Internet is currently available.		46-13 TASK 843 or 46-13 TASK A57
461 826 00	Onboard network system maintenance application: web browser shows error message - The Page cannot be displayed.		46-13 TASK 843 or 46-13 TASK A57
461 841 00	Onboard network system maintenance application: DATALOAD page shows error message - Load request is rejected due to inappropriate dataload state.		46-13 TASK 891
461 842 00	Onboard network system maintenance application: DATALOAD page shows error message - LSAP Validity checks failed while stating to MSD or Data Load.		46-13 TASK 892

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MAINT MESSAGE	MESSAGE TEXT	GO TO FIM TASK
46-10010	Network File Server (Left) SSP is failed.	46-13 TASK A02
46-10020	Network File Server (Left) NSP is failed.	46-13 TASK A03
46-10030	Network File Server (Left) has incompatible software.	46-13 TASK A04
46-10050	Network File Server (Left) Security Log Storage is nearing or at capacity.	46-13 TASK A05
46-10060	Network File Server (Left) UMS certificates are incompatible.	46-13 TASK A06
46-10070	Network File Server (Left) Airline Certs UMS certificate is expired.	46-13 TASK A07
46-10080	Network File Server (Left) UMS certificate does not agree with ground server.	46-13 TASK A08
46-10090	Network File Server (Left) UMS certificate is expiring soon.	46-13 TASK A09
46-10100	Network File Server (Left) UMS certificate does not agree with aircraft information.	46-13 TASK A10
46-10110	Network File Server (Left) and Network Extension Device - Domain Guard have incorrect OPC configuration.	46-13 TASK A11
46-10130	Network File Server (Left) Airplane Keys UMS certificate is expired.	46-13 TASK A13
46-10140	Network File Server (Left) Airline CRL UMS certificate is expired.	46-13 TASK A14
46-10150	Network File Server (Left) MEF UMS is failed.	46-13 TASK A15
46-10160	Network File Server (Left) OAS UMS has missing information.	46-13 TASK A16
46-10170	Network File Server (Left) Airplane Keys UMS is failed.	46-13 TASK A17
46-10200	Network Extension Device - Domain Guard is failed.	46-13 TASK A18
46-10400	Wireless WAN Unit is failed.	46-13 TASK A20
46-10410	Network File Server (Left) WWU RF Enable Discrete does not agree with RF Status from Wireless WAN Unit.	46-13 TASK A21
46-10420	Network File Server (Left) WOW Discrete does not agree with WOW Status from Wireless WAN Unit.	46-13 TASK A22
46-10500	Flight Deck Printer is failed.	46-13 TASK A23
46-15002	Network Extension Device - Domain Guard has no input from Electronic Modular Electronic Unit on Ethernet Bus 9.	46-13 TASK A31
46-15012	Network Extension Device - Domain Guard has no input from Flight Deck Printer on Ethernet Bus 8.	46-13 TASK A32
46-15020	Network File Server (Left) has no input from Captain Electronic Flight Bag EU on Ethernet Bus NSP SP9.	46-13 TASK A33
46-15030	Network File Server (Left) has no input from F/O Electronic Flight Bag EU on Ethernet Bus NSP SP10.	46-13 TASK A34
46-15040	Network File Server (Left) has no input from Wireless WAN Unit on Ethernet Bus NSP SP11.	46-13 TASK A35

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MAINT MESSAGE	MESSAGE TEXT	GO TO FIM TASK
46-15060	Network File Server (Left) has no input from Network Extension Device - Domain Guard on Ethernet Bus NSP SP16.	46-13 TASK A37
46-15082	Network Extension Device - Domain Guard has no input from Left AIMS on Ethernet Bus 2.	46-13 TASK A39
46-15092	Network Extension Device - Domain Guard has no input from Right AIMS on Ethernet Bus 3.	46-13 TASK A40
46-15102	Network Extension Device - Domain Guard has no input from Ground Proximity Warning Computer on Ethernet Bus 4.	46-13 TASK A41
46-16010	Network File Server (Left) has no input from Left AIMS on General Purpose #1 Bus (429).	46-13 TASK A45
46-16020	Network File Server (Left) has no input from Left AIMS on General Purpose #3 Bus (429).	46-13 TASK A46
46-16030	Network File Server (Left) has no input from Left AIMS on General Purpose #4 Bus (429).	46-13 TASK A47
46-16040	Network File Server (Left) has no input from Left AIMS on Inertial Reference Bus (429).	46-13 TASK A48
46-16060	Network File Server (Left) has no input from Left AIMS on CMCS Center Bus (429).	46-13 TASK A50
46-16110	Network File Server (Left) has no input from Right AIMS on General Purpose #1 Bus (429).	46-13 TASK A51
46-16120	Network File Server (Left) has no input from Right AIMS on General Purpose #3 Bus (429).	46-13 TASK A52
46-16130	Network File Server (Left) has no input from Right AIMS on General Purpose #4 Bus (429).	46-13 TASK A53
46-16140	Network File Server (Left) has no input from Right AIMS on Inertial Reference Bus (429).	46-13 TASK A54
46-16270	Network File Server (Left) has no input from Multi-Mode Receiver (left) on Output Bus 3.	46-13 TASK A56
46-16300	Network File Server (Left) has no input from Flight Data Recorder on Playback Bus (717)	46-13 TASK A60

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801. Message Shows on the EFB Fault Log Page - Fault Isolation

A. Fault Isolation Procedure

- (1) Look in the table below for the message that shows in the EFB Fault Log. Do the applicable FIM task for the message that shows.

EFB Fault Log Messages

Fault Log Message	Go to FIM Task
AC POWER REMOVED	46-11 TASK 874
ADC NOT IN REQUIRED STATE	46-11 TASK 845
<application button name> FAILED PROCESS	46-11 TASK 949
<application button name> FAILURE CRC	46-11 TASK 948
<application [PERFORMANCE, CHARTS, etc.]> failed launch	46-11 TASK 850
<application [PERFORMANCE, CHARTS, etc.]> failed suspend	46-11 TASK 844
<application [PERFORMANCE, CHARTS, etc.]> FLIGHT CLOSE FAIL	46-11 TASK 847
<application> FLIGHT INIT FAIL	46-11 TASK 846
<application> resume	46-11 TASK 848
<application [PERFORMANCE, CHARTS, etc.]> UNEXPECTED ACK	46-11 TASK 878
ARINC 429 FAILED	46-11 TASK 971
CLOSE FLIGHT	46-11 TASK 824
CONFIG PART MISSING OR INVALID	46-11 TASK 872
CPU CARD FAILURE	46-11 TASK 866
DDM CUST CFG MISSING OR INVALID	46-11 TASK 940
DU FAULT	46-11 TASK 924
DU TO EU COMMUNICATION LOST	46-11 TASK 819
EFB-L/EFB-R S/W MISMATCH	46-11 TASK 867
FAULT ICON FAILURE	46-11 TASK 972
FVUSUPC MISSING OR INVALID	23-75 TASK 813
FVUUSRC MISSING OR INVALID	23-75 TASK 814
I/O CARD FAIL	46-11 TASK 834
INITIALIZE FLIGHT	46-11 TASK 823
INVALID CONFIGURATION	46-11 TASK 896
INVALID TAIL	46-11 TASK 882
[Long part number] INVALID	46-11 TASK 991
[Long part number] MISSING	46-11 TASK 992
LINUX FAILURE	46-11 TASK 943
LINUX LINUX COMM INVALID	46-11 TASK 970
NO AD3 INPUT DATA	46-11 TASK 833

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EFB Fault Log Messages (Continued)

Fault Log Message	Go to FIM Task
NO ACARS RIGHT INPUT DATA	46-11 TASK 936
NO ACARS2 RIGHT INPUT DATA	46-11 TASK 937
NO ACARS LEFT INPUT DATA	46-11 TASK 938
NO ACARS2 LEFT INPUT DATA	46-11 TASK 939
NO APM DATA	46-11 TASK 875
NO CCD INPUT DATA	46-11 TASK 827
NO CORPORATE ID	46-11 TASK 880
NO FM1L INPUT DATA	46-11 TASK 831
NO FM1R INPUT DATA	46-11 TASK 832
NO GN1 INPUT DATA	46-11 TASK 828
NO GP1 INPUT DATA	46-11 TASK 830
NO IR3 INPUT DATA	46-11 TASK 829
NO PRI INPUT DATA	46-11 TASK 826
OACORE WIN WIN COMM INVALID	46-11 TASK 969
<part number> CFG FAILED	46-11 TASK 957
PROGRAM PIN PARITY FAILURE	46-11 TASK 818
[Short part number] FAILURE CRC	46-11 TASK 987
[Short part number] INVALID	46-11 TASK 984
SHUTDOWN INITIATED	46-11 TASK 825
[Software nomenclature] MISSING	46-11 TASK 985
[Software nomenclature] INVALID	46-11 TASK 986
SYSTEM RESTART AIR	46-11 TASK 865
SYSTEM RESTART GROUND	46-11 TASK 864
SYSTEM START AIR	46-11 TASK 821
SYSTEM START GROUND	46-11 TASK 820
TAIL CHANGE FROM <xxxxx> to <yyyyy>	46-11 TASK 876
TAIL CHANGED ERROR	46-11 TASK 897
TAIL ID INVALID	46-11 TASK 871
TAIL ID MISMATCH	46-11 TASK 868
Termin <application [PERFORMANCE, CHARTS, etc.]> failed suspend	46-11 TASK 844
TOUCHSCREEN INVALID	46-11 TASK 870
UMS VALIDATION FAILED	46-11 TASK 954
UNABLE TO INITIALIZE PRINTER	46-11 TASK 911
VIDEO CAMERA FAIL	23-75 TASK 811

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EFB Fault Log Messages (Continued)

Fault Log Message	Go to FIM Task
VPN HALTED ERROR LIMIT	46-11 TASK 995
WIN25 CONFIG MISMATCH	46-11 TASK 955
WINDOW RESTART INITIATED	46-11 TASK 822
WINDOWS OR ADC FAILURE	46-11 TASK 814
WINDOWS VIDEO FAILURE	46-11 TASK 869

————— END OF TASK —————

803. EFB Blank DU Screen Problems - Fault Isolation

A. General

- (1) Use this task when the DU screen is blank for more than two (2) minutes.

B. Blank DU Screen - Fault Isolation Procedure

- (1) Open the applicable circuit breaker for the blank DU.

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (2) Close the applicable circuit breaker for the blank DU.

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (3) Wait a maximum of 5 minutes for the system to boot up and display on the DU.
 - (a) If the DU operates normally, you corrected the fault.
 - (b) If the DU stays blank, then continue.
- (4) Use the BRT/DIM rocker switch on the DU, or the Master Brightness control knob on the P5 panel, to adjust the brightness level on the DU.
 - (a) If the DU operates normally, you corrected the fault.
 - (b) If the DU stays blank, then continue.
- (5) Do these steps if the blank DU is on the captain's EFB:
 - (a) Do these steps from the F/O's DU:
 - 1) Make sure the MAIN MENU page shows.
 - 2) Select IDENT PAGE from the MAIN MENU page.
 - a) Make sure the IDENT page shows.
 - (b) Push the XFR button on the F/O's DU.
 - 1) If NO INPUT shows on the F/O's DU, then replace the captain's DU, N46103. Display Unit Removal, AMM TASK 46-11-02-000-801 Display Unit Installation, AMM TASK 46-11-02-400-801

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- a) If the DU operates normally, you corrected the fault.
 - b) If the DU stays blank, then continue.
- 2) If NO INPUT does not show on the F/O's DU, then replace the captain's EU, N46102. Electronic Unit Removal, AMM TASK 46-11-03-000-801 Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - a) If the DU operates normally, you corrected the fault.
 - b) If the DU stays blank, then continue.
- (c) Do this check of the wiring:
 - 1) Remove the DU, N46103. Do this task: Display Unit Removal, AMM TASK 46-11-02-000-801
 - 2) Remove the EU, N46102. Do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - 3) Do this check for continuity between these pins at the EU and these pins at the DU (WDM 46-11-11):

DN46102AC		DB46103P (DU)
(EU)		
pin 11	.....	pin A
pin 10	.....	pin C

DN46102AA		DB46103P (DU)
(EU)		
pin 8	.....	pin 9
pin 4	.....	pin 10
- 4) If you find a problem, repair the wiring.
 - 5) Install the DU, N46103. do this task: Display Unit Installation, AMM TASK 46-11-02-400-801
 - 6) Install the EU, N46102. do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - a) If the DU operates normally, you corrected the fault.
 - b) If the DU stays blank, then continue.
- (6) Replace the Captain's DU, N46103. Display Unit Removal, AMM TASK 46-11-02-000-801 Display Unit Installation, AMM TASK 46-11-02-400-801
- (7) Do these steps if the blank DU is on the F/O's EFB:
 - (a) Do these steps from the captain's DU:
 - 1) Make sure the MAIN MENU page shows.
 - 2) Select IDENT PAGE from the MAIN MENU page.
 - a) Make sure the IDENT page shows.
 - (b) Push the XFR button on the captain's DU.
 - 1) If NO INPUT shows on the captain's DU, then replace the F/O's DU, N46203. Display Unit Removal, AMM TASK 46-11-02-000-801 Display Unit Installation, AMM TASK 46-11-02-400-801
 - a) If the DU operates normally, you corrected the fault.

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- b) If the DU stays blank, then continue.
- 2) If NO INPUT does not show on the captain's DU, then replace the F/O's EU, N46202. Electronic Unit Removal, AMM TASK 46-11-03-000-801 Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - a) If the DU operates normally, you corrected the fault.
 - b) If the DU stays blank, then continue.
- (c) Do this check of the wiring:
 - 1) Remove the DU, N46203. Do this task: Display Unit Removal, AMM TASK 46-11-02-000-801
 - 2) Remove the EU, N46202. Do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - 3) Do this check for continuity between these pins at the EU and these pins at the DU (WDM 46-11-11):

DN46202AC

(EU)

DB46203P (DU)

pin 11 pin A

pin 10 pin C

DN46202AA

(EU)

DA46203P (DU)

pin 8 pin 9

pin 4 pin 10

- 4) If you find a problem, repair the wiring.
- 5) Install the DU, N46203. do this task: Display Unit Installation, AMM TASK 46-11-02-400-801
- 6) Install the EU, N46202. do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - a) If the DU operates normally, you corrected the fault.
 - b) If the DU stays blank, then continue.
- (8) Replace the F/O's DU, N46203. Display Unit Removal, AMM TASK 46-11-02-000-801 Display Unit Installation, AMM TASK 46-11-02-400-801

————— **END OF TASK** —————

814. WINDOWS OR ADC FAILURE Fault Message - Fault Isolation

A. General

- (1) This task gives the steps to correct the fault log message:
 - (a) WINDOWS OR ADC FAILURE
- (2) This fault message shows on the FAULT LOG page when the application dispatch controller (ADC) is unserviceable.
- (3) This fault can cause the SYSTEM FAULT LOG, on the SYSTEM page, to show one or more of these messages:
 - APPLICATIONS FAILURE

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- WINDOWS OR ADC FAILURE.

NOTE: If the time-stamp for the FAULT LOG message, and SYSTEM FAULT LOG message agree, then the two messages are for the same fault.

B. Possible Cause

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Restart the Electronic Flight Bag (EFB) as follows:
 - (a) Push the MENU bezel key.
 - (b) Push the SYSTEM PAGE button.
 - 1) Make a record of the current time, and push the RESTART button.

NOTE: The EFB takes approximately eight minutes to reboot, and show the MAIN MENU.
- (2) Examine the MAIN MENU page.
 - (a) If all applications buttons are active, and operate correctly within eight minutes after power-up, then there is no fault.
 - (b) If all applications buttons are inactive or not available within eight minutes, then do the fault isolation procedure below.

E. Fault Isolation Procedure

- (1) From the EFB MAINTENANCE page, select the SYSTEM CONFIG page.
 - (a) Make sure the following software parts are installed:
 - 1) WIN OS
 - 2) APP_SYS_SUP
 - 3) PART 121 WINDOWS
 - 4) PART 25 WINDOWS
 - 5) ADC APPLICATION
 - 6) ADC CUSTOMER CONFIG
 - 7) ADC SUPPLIER CONFIG.
- (2) Push the BACK arrow key (<=) until the SYSTEM page shows.
- (3) On the SYSTEM page, push the RESTART button.
 - (a) If the application buttons on the MAIN MENU are available and selectable, then you corrected the fault.
 - (b) If the fault continues five minutes after you select the RESTART button, go to the next step.
- (4) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

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- (5) Wait for 5 minutes for the EFB system to power on.
 - (a) If all the applications start correctly, then you corrected the fault.
 - (b) If any application will not start correctly, then continue.
- (6) Install the following software. To install software, do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).
 - (a) ADC APPLICATION
 - (b) ADC CUSTOMER CONFIG
 - (c) ADC SUPPLIER CONFIG
 - 1) If all applications launch successfully, you corrected the fault.
 - 2) If all application are inactive or unavailable for more than five minutes, then continue.
- (7) Tell your maintenance operations, or EFB software support group about this problem. They must make sure that the ADC CUSTOMER CONFIG part is serviceable.
- (8) If the problem continues, do this task: (Reimage Windows Partition, AMM TASK 46-11-03-470-804).

NOTE: Windows OS-based applications can include Performance, Terminal Charts, Documents, Logbook, Video, or others.

 - (a) If all applications launch successfully, you corrected the fault.
 - (b) If all applications are inactive or unavailable for more than five minutes, then continue.
- (9) Replace the applicable EU. To replace the EU, These are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If all applications launch successfully, you corrected the fault.

————— **END OF TASK** —————

818. **PROGRAM PIN PARITY FAILURE - Fault Isolation**

A. General

- (1) This task is for this fault message:
 - (a) PROGRAM PIN PARITY FAILURE
- (2) This fault message will show in the FAULT LOG page when a program pin can not be read or verified when the EFB system is powered.
- (3) An 'EFB INOP' maintenance message will also show in both the SYSTEM and FAULT LOG page when the PROGRAM PIN PARITY FAILURE fault is triggered. These two messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.

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- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).
- (2) WDM 46-11-11.
- (3) WDM 46-11-21.

C. Initial Evaluation

- (1) Set the captain's, and first officer's Display Unit (DU) to show the ANALOG DISCRETES page as follows:
 - (a) SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) EFB MAINTENANCE from SYSTEM PAGE page.
 - (c) INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) ANALOG DISCRETES from the INPUT MONITORING page.
- (2) Examine the PROGRAM PIN CODE.
 - (a) Make sure the program pin code shows 2F1 for the right EU.
 - (b) Make sure the program pin code shows 2F4 for the left EU.
 - (c) If the program pin codes are correct, then there was an intermittent fault.
 - (d) If one or more program pin codes is not correct, then do the applicable fault isolation procedure:
 - 1) If the fault is on the captain's DU, do the procedure for the captain's DU that follows.
 - 2) If the fault is on the first officer's DU, do the procedure for the first officer's DU that follows.

D. Fault Isolation Procedure - Captain's DU

- (1) Remove EU-L, N46102. This is the task:
Electronic Unit Removal, AMM TASK 46-11-03-000-801
- (2) On connector DN46102AB, pin B8, do a check for continuity to ground, and check pin D8 and make sure there is not continuity to ground.
WDM 46-11-11
 - (a) If you find a problem, repair the wiring,
SWPM 20-10-13.
- (3) Install again EU-L. This is the task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (4) Set the DU to show the ANALOG DISCRETES page:
 - (a) From the MAIN MENU, push the SYSTEM PAGE button, or adjacent Line Select Key (LSK).

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- (b) Push EFB MAINTENANCE.
- (c) Push INPUT MONITORING.
- (d) Push ANALOG DISCRETES.
- (5) Examine the ANALOG DISCRETES page:
 - (a) Make sure the PIN CODE is 2F4 on the captain's DU.
 - (b) If the pin code is correct, then you corrected the problem.

E. Fault Isolation Procedure - First Officer's DU

- (1) Remove EU-R, N46202. This is the task:
Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) On connector DN46202AB, pin D8, do a check for continuity to ground, and check pin B8 and make sure there is not continuity to ground.
WDM 46-11-21
 - (a) If you find a problem, repair the wiring.
SWPM 20-10-13
- (3) Install again EU-R. This is the task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (4) Set the first officer's DU to show the ANALOG DISCRETES page.
 - (a) From the MAIN MENU, push the SYSTEM PAGE button, or adjacent LSK.
 - (b) Push EFB MAINTENANCE.
 - (c) Push INPUT MONITORING.
 - (d) Push ANALOG DISCRETES.
- (5) Examine the ANALOG DISCRETES page:
 - (a) Make sure the PIN CODE is 2F1 on the first officer's DU.
 - (b) If the pin code is correct, then you corrected the problem.

————— **END OF TASK** —————

819. DU TO EU COMMUNICATION LOST - Fault Isolation

A. Description

- (1) This task is for the EFB fault log message:
 - (a) DU TO EU COMMUNICATIONS LOST
- (2) This fault message shows in the FAULT LOG page when the DU loses communication with the EFB Electronics Unit (EU).
- (3) This fault also causes the message 'DU FAILURE' show in the SYSTEM LOG.
 - (a) If each message shows the same date and time stamp, then they refer to the same fault occurrence.

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- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.

- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
- (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
- (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) If the maintenance message shows when one of these conditions occur, then no corrective action is required:
- (a) After the DU is calibrated.
- (b) When the EFB EU is powering up.
- (2) If the maintenance message shows and are not due to the conditions described above then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Install the following software per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (a) DA CORE
- (b) FLIGHT_MM
- (c) ADM
- (d) Linux P121
- (e) PART 25 LINUX
- 1) If the DU TO EU COMMUNICATION LOST and DU FAILURE maintenance messages do not show with a new time stamp, then you corrected the fault.
- 2) If the DU TO EU COMMUNICATION LOST and DU FAILURE maintenance messages show again in the FAULT LOG with a new time stamp, then continue.
- (2) If the problem continues, do these steps:
- (a) Remove the applicable DU. To remove the DU, do this task: Display Unit Removal, AMM TASK 46-11-02-000-801.
- (b) Remove the applicable EU, N46102, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.

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- (c) Check the wiring (serial link fiber connection) between the EU and DU. (WDM 46-11-11), (WDM 46-11-21)

EU (captain)
DN46102AA

pin 4 pin 10
pin 8 pin 9

DU (captain)
DA46103P

DU (F/O)
DN46202AA

pin 4 pin 10
pin 8 pin 9

DU (F/O)
DA46203P

- (d) If there is a problem with the wiring, repair the problem that you find.
- (e) Install the applicable DU, N46103, N46203. To install the DU, do this task: Display Unit Installation, AMM TASK 46-11-02-400-801 .
- (f) Install the applicable EU, N46102, N46202. To install the EU, do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- 1) If the DU TO EU COMMUNICATION LOST and DU FAILURE maintenance messages do not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— **END OF TASK** —————

820. SYSTEM START GROUND - Fault Isolation

A. General

- (1) This task is for this maintenance message:
- (a) SYSTEM START GROUND
- (2) This maintenance message shows when you start the EFB system while the airplane is on the ground. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) No additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— **END OF TASK** —————

821. SYSTEM START AIR - Fault Isolation

A. General

- (1) This task is for this maintenance message:
- (a) SYSTEM START AIR
- (2) This maintenance message shows when you start the EFB system while the airplane is in the air. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) There is no additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— **END OF TASK** —————

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822. WINDOWS RESTART INITIATED - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) WINDOWS RESTART INITIATED
- (2) This maintenance message shows when the RESTART button on the SYSTEM page is pushed. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) There is no additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— **END OF TASK** —————

823. INITIALIZE FLIGHT - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) INITIALIZE FLIGHT
- (2) This maintenance message shows when the INITIALIZE FLIGHT button on the MAIN MENU is pushed. This is not a fault. NO CORRECTIVE ACTION REQUIRED.
- (3) There is no additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— **END OF TASK** —————

824. CLOSE FLIGHT - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) CLOSE FLIGHT
- (2) This maintenance message shows when the CLOSE FLIGHT button on the MAIN MENU page is pushed. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) There is no additional message shows on the SYSTEM and FAULT LOG page that is related to this maintenance message.

————— **END OF TASK** —————

825. SHUTDOWN INITIATED - Fault Isolation

A. General

- (1) This task is for maintenance message:
 - (a) SHUTDOWN INITIATED
- (2) This maintenance message shows when the SHUTDOWN button on the EFB MAINTENANCE is pushed. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) There is no additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— **END OF TASK** —————

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826. PR1 Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO PR1 INPUT DATA
- (2) This fault message will show in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the printer and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the printer.
 - 1) If the printer status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.
 - 2) If the printer status is ABSENT and the printer is operational, then do the Fault Isolation Procedure - Printer Status ABSENT Status below.
 - 3) If the printer status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - Printer Status PRESENT below.

C. Fault Isolation Procedure - Printer Status ABSENT

- (1) Remove the applicable EU, N46102 or N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the printer, M31004. To remove the printer, do this task: Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801.
- (3) Do this check for continuity between these pins at the applicable EU and these pins at the printer:

E/E Shelf E1-3 to P8 Aisle Stand

EU-L, N46102 DN46102AB		Flight Deck Printer, M31004 DM310004A	
F4		AA	0
G4		BB	0

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E/E Shelf E4-2 to P8 Aisle Stand Panel-Aft

	Flight Deck Printer, M31004 DM310004A
EU-R, M46202 DN46202AB	
F4	DD 0
G4	MM 0

- (a) If you find a problem, repair the wiring.
- (4) Install the applicable EU, 46102, 46202. Do this task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (5) Install the printer, N31004. Do this task:
Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801.
- (a) If the NO PR1 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp 2 minutes after the EFB powered up, then you corrected the fault.

D. Fault Isolation Procedure - Printer Status PRESENT

- (1) Replace the applicable EU, N46102, N46202. To replace the EU, these are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801 .
- (a) If the NO PR1 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp 2 minutes after the EFB powered up, then you corrected the fault.

————— **END OF TASK** —————

827. CCD Communication Problems - Fault Isolation

A. Description

- (1) This task is for this fault message:
 - (a) NO CCD INPUT DATA
- (2) This fault message will show in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the Cursor Control Device (CCD) and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the Cursor Control Device (CCD).
 - 1) If the CCD status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.

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- 2) If the CCD status is ABSENT and the CCD is operational, then do the Fault Isolation Procedure - CCD Status ABSENT Status below.
- 3) If the CCD status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - CCD Status PRESENT below.

C. Fault Isolation Procedure - CCD Status ABSENT

- (1) Remove the applicable EU, N46102, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable CCD, M31103, M31203. To remove the CCD, do this task: Cursor Control Device Removal, AMM TASK 31-61-07-000-801.
- (3) Do this check for continuity between these pins at the EUs and these pins at the CCDs:

Left EU	Left CCD
DN46102AB	DM31103B(J2)
pin A1	pin 23
pin B1	pin 21

Right EU	Right CCD
DN46202AB	DM31203B(J2)
pin A1	pin 23
pin B1	pin 21

- (a) If you find a problem, repair the wiring.
- (b) Install the applicable EU, N46102, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the applicable CCD, N31103, N31203. Do this task: Cursor Control Device Installation, AMM TASK 31-61-07-400-801.
 - 1) If the NO CCD INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

D. Fault Isolation Procedure - CCD Status PRESENT

- (1) Replace the applicable EU, N46102, N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the NO CCD INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— END OF TASK —————

828. GN1 Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO GN1 INPUT DATA
- (2) This fault message will show in the FAULT LOG when there is a total communication loss of the ARINC 429 receiver channels between the MMR/GPSSU and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

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B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the MMR/GPSSU (GN1).
 - 1) If the GN1 status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.
 - 2) If the GN1 status is ABSENT and the GPS/MMR is operational, then do the Fault Isolation Procedure - GN1 Status ABSENT Status below.
 - 3) If the GN1 status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - GN1 Status PRESENT below.

C. Fault Isolation Procedure - GN1 Status ABSENT

- (1) Remove the applicable EU, N46102, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable MMR, M34410, M34510. To remove the MMR, do this task: Receiver for ILS - Removal, AMM TASK 34-31-01-000-801.
- (3) Do this check for continuity between these pins at the EUs and these pins at the MMR receiver:

Left EU
DN46102AB

pin C1 pin E9
pin D1 pin F9

Left MMR
DM34410AB

Right EU
DN46202AB

pin C1 pin E9
pin D1 pin F9

Right MMR
DM34510AB

- (a) If you find a problem, repair the wiring.
- (b) Install the applicable EU, N46102, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the applicable MMR, M34410, N34510. Do this task: Receiver for ILS - Installation, AMM TASK 34-31-01-400-801.
 - 1) If the NO GN1 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

D. Fault Isolation Procedure - GN1 Status PRESENT

- (1) Replace the applicable EU, N46102, N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the NO GN1 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— **END OF TASK** —————

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829. IR3 Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO IR3 INPUT DATA
- (2) This fault message will show in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the AIMS IRS and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the applicable EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the AIM IRS (IR3).
 - 1) If the IR3 status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.
 - 2) If the IR3 status is ABSENT and the AIMS is operational, then do the Fault Isolation Procedure - IR3 Status ABSENT Status below.
 - 3) If the IR3 status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - IR3 Status PRESENT below.

C. Fault Isolation Procedure - IR3 Status ABSENT

- (1) Remove the applicable EU, N46102 or EU, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable IOM (M008) from the left AIMS cabinet, M31101, or the right AIMS cabinet, M31202.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the applicable EU and these pins at the applicable AIMS cabinet IOM connector:

E/E Bay

Left EU	Left AIMS
DN46102AB	J410-A
pin E1	pin F13
pin F1	pin G14

E/E Bay

Right EU	Right AIMS
DN46202AB	J410-A
pin E1	pin F13
pin F1	pin G14

- (a) If you find a problem, repair the wiring.

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- (b) Install the applicable EU, N46102 or EU, N46202. To install the EU, do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the applicable IOM (M008) into the left AIMS cabinet, M31101, or the right AIMS cabinet, M31202.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO IR3 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

D. Fault Isolation Procedure - IR3 Status PRESENT

- (1) Replace the applicable EU, N46102 or N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the NO IR3 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— END OF TASK —————

830. GP1 Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO GP1 INPUT DATA
- (2) This fault message will show in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the AIMS General Purpose BUS 4 and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the GP1.
 - 1) If the GP1 status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.
 - 2) If the GP1 status is ABSENT and AIMS is operational, then do the Fault Isolation Procedure - GP1 Status ABSENT Status below.
 - 3) If the GP1 status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - GP1 Status PRESENT below.

C. Fault Isolation Procedure - GP1 Status ABSENT

- (1) Remove the applicable EU, N46102, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Disconnect the applicable connector D6618, D6718 from the AIMS cabinet, M31101, M31201.
- (3) Do this check for continuity between these pins at the EUs and these pins at the left AIMS cabinet for GP1 input:

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Left EU	Left AIMS
DN46102AB	D6618
pin G1	pin 53
pin H1	pin 54

Right EU	Right AIMS
DN46202AB	D6718
pin G1	pin 53
pin H1	pin 54

- (a) If you find a problem, repair the wiring.
- (b) Install the applicable EU, N46102, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Re-connect the applicable connector, D6618, D6718, from the AIMS cabinet, M31101, M31201.
 - 1) If the NO GP1 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

D. Fault Isolation Procedure - GP1 Status PRESENT

- (1) Replace the applicable EU, N46102, N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the NO GP1 INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— **END OF TASK** —————

831. FM1L Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO FM1L INPUT DATA
- (2) This fault message will show in the FAULT LOG when there is a total communication loss of the ARINC 429 receiver channels between the left AIMS general purpose BUS 1 and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the FM1L.
 - 1) If the FM1L status is PRESENT and an EFB FAILURE maintenance message does not show on the SYSTEM page then there was an intermittent fault.

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- 2) If the FM1L status is ABSENT and AIMS-L is operational, then do the Fault Isolation Procedure - FM1L Status ABSENT Status below.
- 3) If the FM1L status is PRESENT and an EFB FAILURE maintenance message also shows on the SYSTEM page, then do the Fault Isolation Procedure - FM1L Status PRESENT below.

C. Fault Isolation Procedure - IR3 Status ABSENT

- (1) Remove the EU, N46102 and the EU, N46202. To remove the EUs, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the IOM, M003, from the left AIMS cabinet, M31101.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the EUs and these pins at the IOM connector in the left AIMS cabinet:

Left EU	Left AIMS
DN46102AB	J240-A
pin C2	pin F11
pin D2	pin G12

Right EU	Left AIMS
DN46102AB	J240-A
pin C2	pin F11
pin D2	pin G12

- (a) If you find a problem, repair the wiring.
- (b) Install the EU, N46102, and the EU, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM, M003, in the left AIMS cabinet.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO FM1L INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

D. Fault Isolation Procedure - FM1L Status PRESENT

- (1) Replace the applicable EU, N46102.
Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) If the NO FM1L INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— **END OF TASK** —————

832. FM1R Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO FM1R INPUT DATA
- (2) This fault message will show in the FAULT LOG when there is a total communication loss of the ARINC 429 receiver channels between the Right AIMS General Purpose BUS 1 and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.

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- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the FM1R.
 - 1) If the FM1R status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.
 - 2) If the FM1R status is ABSENT and AIMS-R is operational, then do the Fault Isolation Procedure - FM1R Status ABSENT Status below.
 - 3) If the FM1R status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - FM1R Status PRESENT below.

C. Fault Isolation Procedure - FM1R Status ABSENT

- (1) Remove the EU, N46102, and the EU, N46202. To remove the EUs, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the IOM, M003, from the right AIMS cabinet, M31201.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the EUs and these pins at the IOM connector in the right AIMS cabinet:

Left EU	Right AIMS
DN56102AB	J240-A
pin E2	pin F11
pin F2	pin G12

Right EU	Right AIMS
DN46202AB	J240-A
pin E2	pin F11
pin F2	pin G12

- (a) If you find a problem, repair the wiring.
- (b) Install the EU, N46102, and the EU, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM, M003, in the right AIMS cabinet, M31201.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO FM1R INPUT DATA fault message does not show again in the FAULT LOG with a new time and date stamp, then you corrected the fault.

D. Fault Isolation Procedure - IR3 Status PRESENT

- (1) Replace the applicable EU, N46102, or EU, N46202.
Electronic Unit Removal, AMM TASK 46-11-03-000-801

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Electronic Unit Installation, AMM TASK 46-11-03-400-801

- (a) If the NO FM1R INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— **END OF TASK** —————

833. AD3 Communication Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO AD3 INPUT DATA
- (2) This fault message will show in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the AIMS General Purpose BUS 3 and the EFB system for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Do these steps from the EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the AD3.
 - 1) If the AD3 status is PRESENT and an EFB FAILURE maintenance message does not show then there was an intermittent fault.
 - 2) If the AD3 status is ABSENT and AIMS is operational, then do the Fault Isolation Procedure - AD3 Status ABSENT Status below.
 - 3) If the AD3 status is PRESENT and an EFB FAILURE maintenance message also shows, then do the Fault Isolation Procedure - AD3 Status PRESENT below.

C. Fault Isolation Procedure - AD3 Status ABSENT

- (1) Remove the EU, N46102, and the EU, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the IOM, M003, from the left AIMS cabinet, M31101.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the EUs and these pins at the IOM connector in the left AIMS cabinet:

Left EU	Left AIMS
DN46102AB	J240-A
pin G2	pin F11
pin H2	pin G12

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Right EU	Left AIMS
DN46102AB	J240-A
pin G2	pin F11
pin H2	pin G12

- (a) If you find a problem, repair the wiring.
- (b) Install the EU, N46102, and the EU, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM, M003, into the left AIMS cabinet, M31101.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO AD3 INPUT DATA fault message does not show again in the FAULT LOG with a new time and date stamp, then you corrected the fault.

D. Fault Isolation Procedure - AD3 Status PRESENT

- (1) Replace the applicable EU, N46102, or EU, N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the NO AD3 INPUT DATA fault message does not show again in the FAULT LOG with a new time and date stamp, then you corrected the fault.

————— **END OF TASK** —————

834. I/O CARD FAIL - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) I/O CARD FAIL
- (2) This fault message shows when the I/O card detects a failure during the PBIT, CBIT or IBIT test.
- (3) It is possible that an 'EFB FAILURE' fault message also shows in both the SYSTEM and FAULT LOG page when an 'I/O CARD FAIL' fault is triggered. These two messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.

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- (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Fault Isolation Procedure

- (1) Replace the EU. These are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.

————— END OF TASK —————

844. Application Failed to Suspend - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) Termin <application name> failed suspend
NOTE: Application name can be any name of an application.
 - (b) Or, for this message <application name> failed suspend
- (2) This maintenance message will show in the FAULT LOG when the ADC failed to suspend an application. When this occurs the application will be terminated.
- (3) An 'APPLICATION FAILURE' maintenance message may also show in both the SYSTEM and FAULT LOG page when an 'Termin <application name> failed suspend' fault is triggered. These two messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.
NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.
NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) Wait for 8 minutes maximum after system start-up and if the failed application launches successfully, then there was an intermittent fault.
- (2) If the failed application did not launch successfully within 8 minutes of system start-up, then do the fault isolation procedure below.

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C. Fault Isolation Procedure

- (1) From the EFB MAIN MENU:

- (a) Push the SYSTEM PAGE button.

NOTE: The FAULT icon at the top left in the menu title window now does not show.

- (b) On the SYSTEM page, push the RESTART button.

NOTE: Wait approximately five minutes for all applications to become available.

- 1) If the failed application launches successfully, then you corrected the fault.
 - 2) If the failed application did not launch successfully, then continue.

- (2) If the problem continues, do these steps:

- (a) Install all the software that is associated with the failed application per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (b) If the failed applications launches successfully within 5 minutes, then you corrected the fault.

————— END OF TASK —————

845. ADC not in required state - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) ADC NOT IN REQUIRED STATE
- (2) This maintenance message shows when the ADC has timed out while waiting to get to the required state. This maintenance message is used for future software improvements and does not affect EFB operation. NO CORRECTIVE ACTION IS REQUIRED.
- (3) No additional message shows on the SYSTEM and FAULT LOG page that is related to this maintenance message.

————— END OF TASK —————

846. Application Failed Flight Initiation - Fault Isolation

A. Description

- (1) This task is for this maintenance message:
 - (a) <application name> FLIGHT INIT FAIL

NOTE: Application name can be any application name.
- (2) This maintenance message will show when the application failed when the FLIGHT INIT is initiated.
- (3) The '<application name> FLIGHT INIT FAIL' maintenance message will show in SYSTEM page and also is listed a second time in the FAULT LOG page when an '<application name> FLIGHT INIT FAIL' fault is triggered. These maintenance messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.

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- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.

- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
- (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
- (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) From the EFB MAIN MENU:
- (a) Push the SYSTEM PAGE button.
- NOTE: The FAULT icon at the top left in the menu title window now does not show.
- (b) On the SYSTEM page, push the RESTART button.
- NOTE: Wait approximately five minutes for the application to become available.
- 1) If the failed application launches successfully, then there was an intermittent fault.
- 2) If the failed application did not launch successfully, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Install all the software that is associated with the failed application per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (a) If the application launches successfully within 5 minutes, then you corrected the fault.

————— **END OF TASK** —————

847. Application Failed Flight Close - Fault Isolation

A. General

- (1) This task is for this maintenance message:
- (a) <application name> FLIGHT CLOSE FAIL
- (2) This maintenance message will show in the FAULT LOG page when the application failed when the FLIGHT CLOSE is initiated.
- (3) The '<application name> FLIGHT CLOSE FAIL' maintenance message will show in SYSTEM page and also is listed a second time in the FAULT LOG page when an '<application name> FLIGHT CLOSE FAIL' fault is triggered. These maintenance messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.

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- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.

- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) From the EFB MAIN MENU:
 - (a) Push the SYSTEM PAGE button.

NOTE: The FAULT icon at the top left in the menu title window now does not show.
 - (b) On the SYSTEM page, push the RESTART button.

NOTE: Wait approximately five minutes for the application to become available.

 - 1) If the failed application launches successfully, then there was an intermittent fault.
 - 2) If the failed application did not launch successfully within 5 minutes, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Install all the software that is associated with the failed application per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (a) If the failed application launches successfully within 5 minutes, then you corrected the fault.

————— END OF TASK —————

848. Application Resume Fault Log Message - Fault Isolation

A. General

- (1) This task gives to steps to correct the fault log message:
 - (a) <application name> resume
- (2) This fault occurs when application dispatch controller (ADC) failed to resume the application.
- (3) This fault causes the application to terminate.
- (4) This fault also causes the SYSTEM FAULT LOG, on the SYSTEM page, to show the message APPLICATIONS FAILURE.

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- (a) If the time-stamp for the FAULT LOG message, and SYSTEM FAULT LOG message agree, then the two messages are for the same fault.
- (5) This fault causes the FAULT icon to show in two places:
 - (a) The FAULT icon shows on the MAIN MENU, adjacent to the SYSTEM PAGE button.
 - 1) This icon goes off when you push the SYSTEM PAGE button.
 - (b) The FAULT icon shows as part of the page header, in the upper left corner of each page.
 - 1) This icon goes off when you make the ACKNOWLEDGE NEW FAULTS selection on the SYSTEM page.

NOTE: Make sure you make a record of all new faults before you push the ACKNOWLEDGE NEW FAULTS button. New faults show white in color. Faults that are acknowledged show cyan in color.

B. Initial Evaluation

- (1) From the EFB MAIN MENU:
 - (a) Push the SYSTEM PAGE button.

NOTE: The FAULT icon at the top left in the menu title window now does not show.
 - (b) On the SYSTEM page, push the RESTART button.

NOTE: Let the EFB complete the start sequence. This can take approximately five minutes.

 - 1) If the application specified in the fault message operates correctly, then the fault is intermittent.
 - 2) If the application specified in the fault message does not operate correctly, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Install all the software that is associated with the failed application per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (a) If the failed application launches successfully within 5 minutes, then you corrected the fault.

D. Repair Confirmation

- (1) If the specified application launches successfully, and the <application> resume fault does not show again, then you corrected the fault.

————— END OF TASK —————

850. Application Failed to Launch - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) <application name> failed launch

NOTE: Application name can be any name of an application (PERFORMANCE, etc.).
- (2) This maintenance message will show in the FAULT LOG page when the application failed to launch.

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- (3) The 'APPLICATION FAILURE' maintenance message may also show in SYSTEM and FAULT LOG page when the '<application name> failed launch' fault is triggered. These maintenance messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) From the EFB MAIN MENU:
 - (a) Push the SYSTEM PAGE button.

NOTE: The FAULT icon at the top left in the menu title window now does not show.
 - (b) On the SYSTEM page, push the RESTART button.

NOTE: Wait approximately five minutes for the application to become available.

 - 1) If the failed application launches successfully, then there was an intermittent fault.
 - 2) If the failed application did not launch successfully within 5 minutes, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Install all the software that is associated with the failed application per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (a) If the failed application launches successfully within 5 minutes, then you corrected the fault.

————— END OF TASK —————

860. EFB Does Not Respond to DU Bezel Keys Including XFR - Fault Isolation

A. General

- (1) This task has one procedure:
 - (a) Use this task when all DU bezel keys including the XFR bezel key do not respond to your selection.

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B. EFB Does Not Respond to Bezel Keys Including XFR - Fault Isolation Procedure

- (1) If the DU does not respond to bezel key inputs, or to the XFR bezel key, do the steps that follow:

- (a) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (b) Make sure you wait two minutes to verify fault correction.
 - (2) If the problem continues, replace the applicable EFB Display Unit (DU). To replace it, these are the tasks: Display Unit Removal, AMM TASK 46-11-02-000-801, Display Unit Installation, AMM TASK 46-11-02-400-801.
 - (a) Make sure you wait two minutes after you restart the DU to verify fault correction.

————— **END OF TASK** —————

861. EFB Responds Only to XFR Bezel Key - Fault Isolation

A. General

- (1) This task gives the fault isolation procedure for this problem:
 - (a) The XFR (transfer) bezel key operates, but no other DU bezel keys have an effect on EFB operation.

B. Possible Causes

- (1) Software.
- (2) EU-L, N46102, or EU-R, N46202.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the captain's, or first officer's EFB DU.
 - (a) Push the MENU bezel key, or <= (BACK) button.
 - 1) Set the DU to show the MAIN MENU.
 - (b) If you are sure the system is in FLIGHT MODE, and the bezel keys do not operate correctly, then do the fault isolation procedure that follows.

NOTE: This condition, when in flight mode, suggests a problem with the disk-Linux operating system.
 - (c) If you are sure that the system is in LOAD MODE, and the bezel keys do not operate correctly, then begin the fault isolation procedure that follows, but begin with the step to replace the applicable EU.

NOTE: This condition, when in LOAD MODE, suggests a problem with flash-Linux partition. The operating system in flash-Linux can not be repaired by the portable data loader.

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E. Fault Isolation Procedure

- (1) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG



CAUTION

MAKE SURE THAT YOU KNOW AND FOLLOW YOUR AIRLINE PROCEDURE. THE REIMAGE LINUX FUNCTION ERASES FILES. YOUR AIRLINE PROCEDURE CAN REQUIRE YOU TO COPY ALL DOWNLOADABLE LOG FILES BEFORE YOU REIMAGE LINUX. IF YOU DO NOT KEEP A COPY OF ALL APPLICABLE LINUX PARTITIONS, ALL FILES AND DATA WILL BE ERASED.

- (2) Make a back-up copy of all applicable downloadable files that reside on the Linux partition (for example; fault.log, fault.log.archive) per your airline operation procedure. To copy EU data to the PMAT, do this task: Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803..
- (3) Erase (re-image) the disk-Linux partition, and install the software parts again. Do this task: Reimage Linux Partition, AMM TASK 46-11-03-470-805.
NOTE: Make sure you install the required Linux software parts before you exit LOAD MODE, and REBOOT TO MAIN.
 - (a) Let the EFB reboot and show the MAIN MENU on the DU. This can take up to approximately 8 minutes.
- (4) Do a check of the bezel keys, and touchscreen functions.
 - (a) If DU responds correctly to all DU bezel keys, then you corrected the fault.
 - (b) If the EFB does not start-up correctly to show the MAIN MENU, or the bezel keys to not operate correctly, then continue.
- (5) Replace the applicable EU. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) Let the EFB reboot and show the MAIN MENU on the DU. This can take approximately eight (8) minutes.
- (6) Do a check of the bezel keys, and touchscreen functions.
 - (a) If DU responds correctly to all DU bezel keys, then you corrected the fault.

F. Repair Confirmation

- (1) When the EFB responds correctly to inputs from the DU bezel keys, you have corrected the problem.

————— END OF TASK —————

864. SYSTEM RESTART GROUND - Fault Isolation

A. General

- (1) This task is for this maintenance message:
 - (a) SYSTEM RESTART GROUND

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- (2) This message shows when the EFB was rebooted itself while the airplane is on the ground. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.

NOTE: This fault is also logged when you access the MAIN MENU from LOAD MODE.

- (3) No additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— END OF TASK —————

865. SYSTEM RESTART AIR

A. General

- (1) This task is for this maintenance message:
 - (a) SYSTEM RESTART AIR
- (2) This maintenance message shows when the EFB rebooted itself while the airplane is in the air. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) There is no additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— END OF TASK —————

866. CPU Card Fail - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) CPU CARD FAILURE
- (2) This fault message shows when the Linux-side CPU fails during PBIT.
- (3) The 'EFB FAILURE' fault message also shows in both the SYSTEM and FAULT LOG page when the 'CPU CARD FAILURE' fault is triggered. These two messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

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B. Fault Isolation Procedure

- (1) Replace the applicable EU. These are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801.

————— END OF TASK —————

867. EFB-L (EFB-R) Software Mismatch Problems - Fault Isolation

A. Description

- (1) This task is for this fault message:
 - (a) EFB-L/ EFB-R S/W MISMATCH fault message
- (2) This fault message shows in the FAULT LOG page when there is a software part number configuration mismatch between EU-L and EU-R.
- (3) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.

B. Initial Evaluation

- (1) Do these steps:
 - (a) Look at the EFB Main Menu to find if the airplane is ADEL-Enabled.
 - (b) If the EFB Main Menu shows a DATA LOAD button, the airplane is ADEL-Enabled. Do the steps that follow:
 - 1) Do this alternate task: ADEL EU Compare Configuration, AMM TASK 46-19-00-700-801
 - 2) After you do the COMPARE CONFIG task, if you see the NO MISMATCH message, then there was an intermittent fault.
 - 3) If a mismatch is found and a COMPARE CONFIG page shows with a table of mismatched software parts, then do the fault isolation procedure below.
 - (c) If the EFB Main Menu does not show a DATA LOAD button, the airplane is not ADEL-Enabled. Do the steps that follow:
 - 1) Do this task: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806
 - 2) After you do the CONFIG COMPARE task, if you see the NO MISMATCH message, then there was an intermittent fault.
 - 3) If a mismatch is found and a CONFIG COMPARE page shows with a table of mismatched software parts, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Look at the software configuration list for this airplane and notify your ground maintenance operations for corrective action.

————— END OF TASK —————

868. Tail ID Mismatch Problems - Fault Isolation

A. Description

- (1) This task is for fault message:
 - (a) TAIL ID MISMATCH

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- (2) In the FAULT LOG page, the fault message 'EU-L : <tail id>' and 'EU-R : <tail id>' messages show at the same time. The <tail id> is blank or is different for the two EU's. These two messages and the TAIL ID MISMATCH message are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (3) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon shows in the menu title window in the upper left corner. Also, a "FAULT" annunciation shows adjacent to the SYSTEM PAGE button.

NOTE: The FAULT icon clears when you access the SYSTEM PAGE. The "FAULT" annunciation clears when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.

- (4) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (5) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) From the MAIN MENU on the DU-R and the DU-L, select the IDENT PAGE.
 - (a) If the TAIL ID on DU-L and DU-R are the same as the flight compartment placard, then there was an intermittent fault.
 - (b) If the TAIL ID on DU-L and DU-R are not the same as the flight compartment placard, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) For the DU tail ID that is not the same as the flight compartment placard, change the tail ID. Do this task: TAIL ID Check, AMM TASK 46-11-03-860-805

————— END OF TASK —————

869. WINDOWS VIDEO FAILURE - Fault Isolation

A. Description

- (1) This task gives the steps to correct the fault message:
 - (a) WINDOWS VIDEO FAILURE.
- (2) This fault message shows on the FAULT LOG page when the EFB can not sense correctly-formatted VGA video output from the Windows CPU.
- (3) This fault also causes the SYSTEM FAULT LOG, on the SYSTEM page, to show the message APPLICATIONS FAILURE.

NOTE: If the time-stamp for the FAULT LOG message, and SYSTEM FAULT LOG message agree, then the two messages are for the same fault.

- (4) This fault also causes these annunciations on the MAIN MENU:
 - (a) The FAULT icon shows in the upper left corner of the title window.
 - 1) The icon goes off when you push the SYSTEM PAGE button.

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- (b) The FAULT annunciation shows adjacent to the SYSTEM PAGE button.
 - 1) The annunciation goes off when you push ACKNOWLEDGE NEW FAULTS from the SYSTEM page.

B. Possible Cause

- (1) Software.
- (2) EU-L, N46102, or EU-R, N46202.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) From the MAIN MENU, push the SYSTEM PAGE button.
- (2) From the SYSTEM page, push the RESTART button.
- (3) Let the EFB reboot and show the MAIN MENU. This can take up to approximately 8 minutes.
- (4) From the MAIN MENU, make sure that the Windows-OS based applications operate correctly.

NOTE: Windows OS-based applications can include Performance, Terminal Charts, Documents, Logbook, Video, or others. Airport moving map is a Linux application and can be excluded.

- (a) If all Windows applications operate correctly, then there was an intermittent fault.
- (b) If NO VIDEO shows after you select one or more OAS applications, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (2) Set the EFB to show the LOAD MODE page while the EFB system is starting up:
 - (a) From the MAIN MENU, push the SYSTEM PAGE button.
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the LOAD MODE button.
 - (d) Let the EFB boot-up into load mode. This can take approximately four minutes.
 - (e) Make sure the DU shows the LOAD MODE page.

NOTE: When in load mode, the touchscreen function does not operate. You must push the line-select key (LSK) adjacent to your selection.



MAKE SURE THAT YOU KNOW AND OBEY YOUR AIRLINE PROCEDURE BEFORE YOU RE-IMAGE WINDOWS. BEFORE YOU RE-IMAGE WINDOWS, DOWNLOAD ALL DOWNLOADABLE LOG FILES. IF YOU DO NOT DOWNLOAD THE FILES, ALL THE FILES AND THE DATA THAT THEY CONTAIN WILL BE ERASED.

- (3) Do this task: (Reimage Windows Partition, AMM TASK 46-11-03-470-804).

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- (a) Make sure you do the procedure to save a copy of necessary data before you erase the partition.
- (b) Make sure you do the software installation specified in the task.
- (c) Make sure you do the software check specified in the task.
- (4) Examine again the MAIN MENU.
 - (a) If all Windows-OS based applications show gray in color, and operate correctly, then you corrected the fault.
 - (b) If NO VIDEO shows after you select one or more Windows applications, then continue.
- (5) Remove the unserviceable EU, and install a serviceable EU. Do these tasks: (Electronic Unit Removal, AMM TASK 46-11-03-000-801, and Electronic Unit Installation, AMM TASK 46-11-03-400-801).
 - (a) Make sure that you do the operational test specified by the EU installation task.

F. Repair Confirmation

- (1) When the Windows-OS based applications show gray in color, and operate correctly with no new faults occur, then you corrected the fault.

————— END OF TASK —————

870. Touchscreen Invalid - Fault Isolation

A. Description

- (1) This task is for the SYSTEM PAGE fault message:
 - (a) TOUCHSCREEN INVALID
NOTE: No fault is logged to the FAULT LOG for this fault.
 - (b) This fault shows when the touchscreen fails CRC check or the DU can not communicate with the touchscreen upon system power-up.

B. Initial Evaluation

- (1) Make sure the touchscreen is calibrated.
Touchscreen Calibration Test, AMM TASK 46-11-02-700-801
 - (a) If the touchscreen calibration test passes successfully, then there was an intermittent fault.
 - (b) If the touchscreen calibration test fails, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Do a calibration of the touchscreen.
Display Unit - Touchscreen Calibration Procedure, AMM TASK 46-11-02-820-801
 - (a) If the fault message does not show, then you corrected the fault.
 - (b) If the fault continues, then go to the next step.
- (2) Replace the applicable DU.
Display Unit Removal, AMM TASK 46-11-02-000-801
Display Unit Installation, AMM TASK 46-11-02-400-801

————— END OF TASK —————

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871. TAIL ID INVALID - Fault Isolation

A. Description

- (1) This task is for the SYSTEM PAGE fault message:
 - (a) TAIL ID INVALID
NOTE: No fault shows in the FAULT LOG for this fault.
 - (b) This fault shows when there is failure of the tail ID CRC or if the DU is not able to read and verify tail ID at power-up.

B. Initial Evaluation

- (1) Do check of the Tail ID.
TAIL ID Check, AMM TASK 46-11-03-860-805
 - (a) If the TAIL ID is correct, then there was an intermittent fault.
 - (b) If the TAIL ID is not correct, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Change the TAIL ID in the applicable DU so it is the same as the tail ID on the flight compartment placard.
TAIL ID Check, AMM TASK 46-11-03-860-805
 - (a) If the fault message does not show, then you corrected the fault.
 - (b) If the SAVE TAIL ID function fails 3 times, then go to the next step.
- (2) Replace the applicable DU.
Display Unit Removal, AMM TASK 46-11-02-000-801
Display Unit Installation, AMM TASK 46-11-02-400-801

————— END OF TASK —————

872. CONFIG PART MISSING OR INVALID - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) CONFIG PART MISSING OR INVALID
- (2) This fault message shows in the FAULT LOG when a Core Linux or Windows configuration software part is missing, failed CRC check or failed AuthKey check.
- (3) There is no additional maintenance message listed in the SYSTEM or FAULT LOG page that is associated with this maintenance message.

B. Initial Evaluation

- (1) Look at the MAIN MENU.
 - (a) If the MAIN MENU shows and all applications are present and selectable, ignore the fault.
 - (b) If the MAIN MENU shows and all Windows applications (PERFORMANCE, DOCUMENTS, etc.) are not present and not selectable, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Reload the following software parts Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

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- (a) PART 25 WINDOWS
- (b) PART 121 WINDOWS.

————— END OF TASK —————

874. AC Power Removed - Fault Isolation

A. General

- (1) This task is for this message:
 - (a) AC POWER REMOVED
- (2) This status message shows when you open the EFB system circuit breaker. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) No additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— END OF TASK —————

875. NO APM DATA - Fault Isolation

A. Description

- (1) This task is for this fault message:
 - (a) NO APM DATA
- (2) This message shows on the SYSTEM page. There is no associated FAULT LOG message.
- (3) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon shows in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.

NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.

NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (4) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.

NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Fault Isolation Procedure

- (1) Do this task: Touchscreen Calibration Test, AMM TASK 46-11-02-700-801.
 - (a) If the touchscreen is not calibrated, then do this task: Display Unit - Touchscreen Calibration Procedure, AMM TASK 46-11-02-820-801.
- (2) From the MAIN MENU, select the IDENT page.
 - (a) Make sure the TAIL ID that shows on the DU is the same as the TAIL ID on the flight compartment placard.
 - (b) If the TAIL ID is not the same as the flight compartment placard, then change the tail ID. To change the TAIL ID, do this task: TAIL ID Check, AMM TASK 46-11-03-860-805.

————— END OF TASK —————

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876. Tail Changed Message - Fault Isolation

A. General

- (1) This task is for this message:
 - (a) TAIL CHANGE. FROM "xxxxx" to "yyyyy"
- (2) This status message shows when the TAIL ID value has changed. This is not a fault. NO CORRECTIVE ACTION IS REQUIRED.
- (3) No additional message shows on the SYSTEM and FAULT LOG page that is associated with this maintenance message.

————— END OF TASK —————

878. Application Unexpected Acknowledgement - Fault Isolation

A. Description

- (1) This task is for fault message:
 - (a) <Application Name> UNEXPECTED ACK
NOTE: Application name can be any name of an application (PERFORMANCE, etc.).
Also, <message type> can be any message.
- (2) This message shows in the FAULT LOG page when an application has generated unexpected acknowledgement.
- (3) The 'APPLICATION FAILURE' maintenance message also shows in SYSTEM and FAULT LOG page when the '<application name> failed launch' fault is triggered. These maintenance messages are for the same fault and will have the same date and time stamped in the FAULT LOG page.
- (4) If a fault is logged to the SYSTEM PAGE, a "FAULT" icon will show in the menu title window in the upper left corner. Also, a "FAULT" annunciation will be displayed next to the SYSTEM PAGE button.
NOTE: The FAULT icon will clear when you access the SYSTEM PAGE. The "FAULT" annunciation will clear when all messages are acknowledged on the SYSTEM page.
NOTE: The ACKNOWLEDGE NEW FAULTS button becomes active when all unacknowledged faults are viewed.
- (5) The FAULT LOG shows only the first 30 characters of the fault. If the fault text is truncated, print the page that contains the applicable fault.
- (6) The color of the fault listed in the SYSTEM page tells you it is a new fault.
 - (a) New un-acknowledged faults are shown in white color on the EFB SYSTEM PAGE. This page is accessed from the EFB MAIN MENU.
 - (b) All the new faults will change to cyan (blue) color when the ACKNOWLEDGE NEW FAULTS button is pushed.
NOTE: Make sure you log the new faults for your record prior to pushing the ACKNOWLEDGE NEW FAULTS button.

B. Initial Evaluation

- (1) From the EFB MAIN MENU:
 - (a) Push the SYSTEM PAGE button.
NOTE: The FAULT icon at the top left in the menu title window now does not show.

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- (b) On the SYSTEM page, push the RESTART button.

NOTE: Wait approximately five minutes for the application to become available.

- 1) If the failed application launches successfully, then there was an intermittent fault.
- 2) If the failed application did not launch successfully within 5 minutes, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Install all the software that is associated with the failed application per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303). To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (a) If the failed application launches successfully within 5 minutes, then you corrected the fault.

————— END OF TASK —————

880. Corporate ID Problems - Fault Isolation

A. Description

- (1) This task is for this fault message:
 - (a) NO CORPORATE ID
- (2) This message shows when the part is invalid.

B. Fault Isolation Procedure

- (1) Tell your EFB operations center. The JEP-xx-DMEP-yyyy software part number is invalid, needs to be re-created and then installed.

————— END OF TASK —————

882. Invalid Tail Problems - Fault Isolation

A. Description

- (1) This task is for FAULT LOG message:
 - (a) INVALID TAIL
- (2) This fault shows when EFB DDM application failed to sense the airplane tail ID.

NOTE: There is no related fault message that shows on the SYSTEM page for this fault.

B. Fault Isolation Procedure

- (1) Do check of the Tail ID and, if necessary, change the Tail ID in the DU so that it is the same as the flight compartment placard tail ID TAIL ID Check, AMM TASK 46-11-03-860-805.
 - (a) If the fault continues, ignore the fault.

————— END OF TASK —————

886. NO INPUT message shows on the DU - Fault Isolation

A. Description

- (1) This task contains the following procedure to troubleshoot this DU display problem:
 - (a) NO INPUT message shows on the DU for more than 3 minutes.

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B. Fault Isolation Procedure

- (1) Open the applicable circuit breaker for the DU that shows NO INPUT.

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (2) Close the applicable circuit breaker for the DU that shows NO INPUT.

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (3) Wait a minimum of 3 minutes for the system to boot up and display on the DU.
- (a) If the DU operates normally and you do not see the NO INPUT message, you corrected the fault.
- (b) If you see the NO INPUT message again, then continue.
- (4) Make sure the EU is correctly installed. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801
- (a) If the DU operates normally, you corrected the fault.
- (b) If NO INPUT still shows on the DU, then continue.
- (5) Make sure the DU is correctly installed. Do this task: Display Unit Installation, AMM TASK 46-11-02-400-801
- (a) If the DU operates normally, you corrected the fault.
- (b) If NO INPUT still shows on the DU, then continue.
- (6) Replace the applicable DU, N41203 or N46203. These are the tasks: Display Unit Removal, AMM TASK 46-11-02-000-801 Display Unit Installation, AMM TASK 46-11-02-400-801.
- (a) If the DU operates normally, you corrected the fault.
- (b) If NO INPUT still shows on the DU, then continue.
- (7) Replace the applicable EU, N46102 or N46202.
- These are the tasks:
- Electronic Unit Removal, AMM TASK 46-11-03-000-801,
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (a) If the DU operates normally, you corrected the fault.
- (b) If NO INPUT still shows on the DU, then continue.
- (8) Do this check of the wiring if NO INPUT shows on the Captain's DU:
- (a) Remove the DU, N46103. do this task: Display Unit Removal, AMM TASK 46-11-02-000-801
- (b) Remove the EU, N46102. do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801
- (c) Do this check for continuity between these pins at the EU and these pins at the DU (WDM 46-11-11):

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DN46102AA

(EU)

DA46103P (DU)

pin 8 pin 9
pin 4 pin 10

- 1) If you find a problem, repair the wiring.
 - 2) Install the DU, N46103. do this task: Display Unit Installation, AMM TASK 46-11-02-400-801
 - 3) Install the EU, N46102. do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - 4) If the DU operates normally, you corrected the fault.
- (9) Do this check of the wiring if NO INPUT shows on the First Officer's DU:
- (a) Remove the DU, N46203. do this task: Display Unit Removal, AMM TASK 46-11-02-000-801
 - (b) Remove the EU, N46202. do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - (c) Do this check for continuity between these pins at the EU and these pins at the DU (WDM 46-11-21):

DN46202AA

(EU)

DA46203P (DU)

pin 8 pin 9
pin 4 pin 10

- 1) If you find a problem, repair the wiring.
- 2) Install the DU, N46203. do this task: Display Unit Installation, AMM TASK 46-11-02-400-801
- 3) Install the EU, N46202. do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801
- 4) If the DU operates normally, you corrected the fault.

————— **END OF TASK** —————

887. NO VIDEO message shows on the DU - Fault Isolation

A. Description

- (1) This task contains the following procedure to troubleshoot this DU display problem:
 - (a) NO VIDEO message shows on the DU for more than 3 minutes after you supply electrical power to the airplane or during transition from the Load Mode to the Flight Mode.
- (2) When you observe the NO VIDEO problem, the EFB fault log can show the message LINUX FAILURE.

NOTE: If the NO VIDEO problem is found to be intermittent, the LINUX FAILURE fault can be ignored, and cleared from the fault log.

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B. NO VIDEO Message - Fault Isolation Procedure

- (1) Open the applicable circuit breaker for the DU that shows NO VIDEO.

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (2) Make sure the EU is correctly installed Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (3) Close the applicable circuit breaker for the DU that shows NO VIDEO.

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (4) Do these steps to access the LOAD MODE page while the EFB system is starting up.
 - (a) Select SYSTEM PAGE from the MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM PAGE.
 - (c) Select LOAD MODE from the EFB MAINTENANCE page.

NOTE: The EFB shows the LOAD MODE page approximately three minutes after you push the LOAD MODE button. During the reboot sequence, the DU can show the words NO INPUT, followed by NO VIDEO. Also, the Windows desktop can show intermittently. This is its usual operation, and not a fault.



BECAUSE THE REIMAGE LINUX FUNCTION DELETES FILES, MAKE SURE YOU KNOW AND FOLLOW YOUR AIRLINE PROCEDURE. YOUR AIRLINE PROCEDURE MAY REQUIRE YOU TO DOWNLOAD ALL DOWNLOADABLE LOG FILES BEFORE RE-IMAGING LINUX. IF YOU DO NOT DOWNLOAD ALL APPLICABLE LINUX PARTITION, ALL FILES AND THE DATA THEY CONTAIN WILL BE DELETED.

- (5) Do this task: (Reimage Linux Partition, AMM TASK 46-11-03-470-805).
 - (a) Make sure you do the procedure to save a copy of necessary data before you erase the partition.
 - (b) Make sure you do the software installation specified in the task.
 - (c) Make sure you do the software check specified in the task.
 - (6) Examine the DU again.
 - (a) If the NO VIDEO message does not show on the DU, then you corrected the fault.
 - (b) If the NO VIDEO message shows on the DU, then continue.
 - (7) Examine the EFB FAULT LOG for the message LINUX FAILURE.
 - (a) If the log shows LINUX FAILURE, and the time-stamp agrees with the NO VIDEO problem, then erase the LINUX FAILURE fault from the log.
- NOTE:** If the NO VIDEO fault is intermittent, you can erase and ignore the LINUX FAILURE fault log message.



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- (8) Remove the unserviceable EU, N46102 or N46202, and install a serviceable EU. Do these tasks: (Electronic Unit Removal, AMM TASK 46-11-03-000-801, and Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (a) If the DU operates normally, you corrected the fault.

————— **END OF TASK** —————

888. WINDOWS Applications Show NO VIDEO When Selected - Fault Isolation

A. Description

- (1) Use this fault isolation task when the NO VIDEO message shows for more than 3 minutes after you select any Windows OS-based application (for example - PERFORMANCE, VIDEO, DOCUMENTS, etc).

B. WINDOWS Applications Show NO VIDEO When Selected - Fault Isolation

- (1) De-energize the captain's, or first officer's EFB. Do the steps as follows:
- (a) Push the MENU bezel key.
- (b) Make sure the Windows-OS based application buttons show gray in color.
- NOTE: Windows OS-based applications can include Performance, Terminal Charts, Documents, Logbook, Video, or others.
- (c) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (d) Let the EFB boot-up, and show the main menu. This can take approximately eight minutes.
- (2) Select any two Windows applications from the MAIN MENU (for example, PERFORMANCE, VIDEO, DOCUMENTS, etc).
- (a) If NO VIDEO does not show after you select the applications, then you corrected the fault.
- (b) If NO VIDEO shows after you select the applications, then continue.



MAKE SURE THAT YOU KNOW AND OBEY YOUR AIRLINE PROCEDURE. THE REIMAGE WINDOWS FUNCTION ERASES FILES. YOUR AIRLINE PROCEDURE CAN REQUIRE YOU TO COPY ALL DOWNLOADABLE LOG FILES BEFORE YOU REIMAGE WINDOWS. IF YOU DO NOT KEEP A COPY OF THE DATA, ALL FILES AND DATA WILL BE ERASED.

- (3) Do this task: (Reimage Windows Partition, AMM TASK 46-11-03-470-804).
- (a) Make sure you make a back-up copy of necessary data before you erase the partition.
- 1) Make sure you do the software installation and check specified by the task.
- (4) Examine again the EFB main menu.
- (a) Select two Windows applications from the MAIN MENU (for example, PERFORMANCE, VIDEO, DOCUMENTS, etc).

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- (b) If NO VIDEO does not show after you select the applications, then you corrected the fault.
- (c) If NO VIDEO shows after you select the applications, then continue.
- (5) Remove the unserviceable EU, N46102 or N46202, and install a serviceable EU. Do these tasks: (Electronic Unit Removal, AMM TASK 46-11-03-000-801, and Electronic Unit Installation, AMM TASK 46-11-03-400-801).

C. Repair Confirmation

- (1) If the EFB shows the conditions that follow, then you corrected the fault.
 - (a) The application buttons show gray in color on the main menu.
 - (b) The applications launch and operate correctly.
 - (c) The words NO VIDEO does not show when you launch the application.

— END OF TASK —

889. MAIN MENU Application Buttons Do Not Show - Fault Isolation

A. General

- (1) This task gives the steps to correct the EFB when the main menu has these two problems:
 - (a) The touchscreen buttons for all Windows applications (for example, Logbook, Performance, and Video) are missing on the MAIN MENU.
 - (b) The touchscreen button for all Linux applications are missing on the MAIN MENU.
 - (c) This condition continues for five minutes or more after boot-up.

NOTE: You must know which applications your airline specifies for service. Refer to the software installation record specified by your airline or operator.

- (2) This fault can occur when one or more specified Linux Part 25 software Loadable Software Airplane Part (LSAP) are corrupt, or missing.

NOTE: The MAIN MENU shows application buttons that originate from the Linux, and Windows operating systems. The Linux operating system must be serviceable before the MAIN MENU can show one or more buttons for Windows applications.

B. Possible Causes

- (1) Software.
- (2) EU-L, N46102.
- (3) EU-R, N46202.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Fault Isolation Procedure

- (1) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (a) Let the EFB restart and show the MAIN MENU. This can take approximately eight minutes.

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- (2) Examine the DU.
 - (a) If the MAIN MENU shows with all application buttons, then the fault is intermittent.
 - (b) If the MAIN MENU shows with no touchscreen application buttons, or they do not operate correctly, then continue.
- (3) Replace the applicable EU, N46102 or N46202. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801,
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) Make sure you do the system test specified by the EU installation task.

E. Repair Confirmation

- (1) If the MAIN MENU shows all applicable touchscreen buttons for Linux and Windows applications, and they operate correctly with no new faults, then you corrected the problem.

————— END OF TASK —————

890. All MAIN MENU Windows Applications Buttons Do Not Show - Fault Isolation

A. Description

- (1) Use this fault isolation task when all MAIN MENU Windows applications do not show, after EFB has been energized for eight (8) minutes or more.
 - (a) For example, the MAIN MENU does not show PERFORMANCE, VIDEO, and MANUALS.
 - (b) For this specific task, the MAIN MENU does show LINUX application buttons, if installed.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Set the DU to show the SYSTEM PAGE, and push the RESTART button, or adjacent LSK.
NOTE: The EFB can take approximately eight (8) minutes to again show the MAIN MENU.
 - (a) If the MAIN MENU then shows all Windows application buttons, the fault is intermittent.
 - (b) If the MAIN MENU again does not show one or more Windows application buttons, then do the procedure that follows.

E. Fault Isolation Procedure

- (1) Examine the SYSTEM CONFIG page, and identify the software parts to install. These are the steps:
 - (a) From the MAIN MENU, push the SYSTEM page button.
 - 1) Make sure that the SYSTEM PAGE shows.
 - (b) From the SYSTEM page, push the SYSTEM CONFIG button.
 - 1) Make sure the SYSTEM CONFIG page shows.
 - (c) Examine the SYSTEM CONFIG PAGE and observe the color and condition of these software parts:
 - 1) ADC APPLICATION
 - 2) ADC SUPPLIER CONFIG

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- 3) ADC CUSTOMER CONFIG
- 4) PART 25 WINDOWS
- 5) PART 121 WINDOWS

NOTE: Parts that show white in color are serviceable. Parts that shows amber in color are unserviceable. Parts that shows cyan in color have not successfully completed the cyclic redundancy check (CRC).

- (d) If all software parts show as white in color, then the fault is intermittent.
 - (e) If one or more parts shows cyan in color, restart the EFB.
 - 1) From the SYSTEM page, select RESTART.
 - 2) Continue at the step above,
 - (f) If one or more parts shows as amber in color, then make a record of the part for installation.
- (2) Make a copy of all downloadable files from the Windows partition to your data loader. This is the task:
Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803.
NOTE: Know and follow your airline procedure. The next step will erase data. Your airline can require you to make a copy of data before it is erased from the EU.
 - (3) Set the DU to show the DELETE WIN LSAP AND DATA page.
 - (a) From the LOAD MODE page, push the LSK adjacent to DISK UTILITIES.
 - (b) On the DISK UTILITIES page, push the LSK adjacent to DELETE WIN LSAP AND DATA.
 - (4) Follow the data on the touchscreen, and erase (delete) the applicable software parts.
NOTE: For each application that did not show on the MAIN MENU, you erase the applicable LSAP and data for that application.
 - (a) Set the DU to show the LOAD MODE page.
NOTE: Do not exit load mode.
 - (5) Install the applicable software parts. This is the task:
Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801
46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301
 - (a) After the installation is complete, on the LOAD MODE page, select REBOOT TO MAIN.
 - (6) Examine again the MAIN MENU page.
 - (a) If all Windows applications show on the MAIN MENU, you corrected the fault.
 - (b) If all Windows applications do not show on the MAIN MENU, then continue.
 - (7) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (8) Install all of the software parts that follow:
 - ADC APPLICATION

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- ADC SUPPLIER CONFIG
- ADC CUSTOMER CONFIG
- PART 25 WINDOWS
- PART 121 WINDOWS.

This is the task:

Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801

46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301,

- (a) After the installation is complete, on the LOAD MODE page, select REBOOT TO MAIN.
- (9) Examine again the MAIN MENU page.
- (a) If all Windows applications show on the MAIN MENU, you corrected the fault.
- (b) If all Windows applications do not show on the MAIN MENU, then continue.



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- (10) Reimage the WINDOWS partition. Do this task:
Reimage Windows Partition, AMM TASK 46-11-03-470-804
- (a) Make sure that you install all software parts on the Windows partition, including WIN OS, as specified in the Reimage task.
- (11) Examine again the MAIN MENU for all Windows applications.
- (a) If all Windows applications show on the MAIN MENU, you corrected the fault.
- (b) If all Windows applications do not show on the MAIN MENU, then continue.
- (12) Replace the applicable EU, N46102 or N46202. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801,
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (a) If the DU operates normally, you corrected the fault.

— END OF TASK —

891. All MAIN MENU Windows Applications Buttons Show But Are Not Selectable - Fault Isolation

A. Description

- (1) Do this fault isolation task when one, or more of these conditions exists:
- (a) All Windows-OS based application buttons, on the MAIN MENU, show but are unserviceable.
- NOTE: Windows OS-based applications can include Performance, Terminal Charts, Documents, Logbook, Video, or others.
- (b) The FAULT LOG shows the message that follows:
- 1) PROGRAM PIN PARITY FAILURE.
- a) This fault also causes the SYSTEM page to show the message EFB INOP.

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- b) If the time-stamp for the fault log message and the system page message is the same, then the two messages are for the same fault.

B. Possible Causes

- (1) Program Pin Wiring

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Do the steps that follow to restart the EFB Windows-OS partition.
 - (a) Push the MENU bezel key.
 - (b) Push the SYSTEM PAGE button.
 - (c) Make your selection RESTART.
 - 1) Make sure IN PROGRESS shows above the RESTART button.
 - (d) Push the MENU bezel key.
 - 1) Make sure the MAIN MENU shows.
 - 2) Let the Windows-OS based applications load. This can take approximately 5 minutes.
- (2) Examine the Windows-OS based application buttons on the main menu.
 - (a) If all Windows application buttons on the MAIN MENU, and are gray in color, then you corrected the fault.
 - (b) If all Windows applications do not show on the MAIN MENU, then continue.

E. Fault Isolation Procedure

- (1) From the MAIN MENU, select the SYSTEM page.
- (2) On the SYSTEM page, select EFB MAINTENANCE.
- (3) Select SYSTEM CONFIG on the EFB MAINTENANCE page.
 - (a) Make sure all of the following software parts are installed.
 - 1) ADC APPLICATION
 - 2) ADC SUPPLIER CONFIG
 - 3) ADC CUSTOMER CONFIG
 - 4) PART 25 WINDOWS
 - 5) PART 121 WINDOWS.
 - (b) Examine the software parts on the SYSTEM CONFIG.
 - 1) Make sure all parts show white in color.
 - 2) If one or more parts shows amber, or cyan in color, then install the applicable parts again. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) If the conditions that follow exist, then you corrected the fault.
 - (a) The main menu shows buttons for all Windows applications specified by your airline or operator.

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- (b) Each application button shows gray in color.
- (c) Each application button launches, and operates correctly.

————— **END OF TASK** —————

892. EFB Maintenance Page Application Buttons Are Not Active - Fault Isolation

A. Description

- (1) This task gives the steps to correct the problem that follows.
 - (a) On the EFB MAINTENANCE page, all buttons except LOAD MODE and SHUTDOWN, are unserviceable.

B. Possible Causes

- (1) LSAP.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the EFB MAINTENANCE page.
 - (a) If the functions LOAD MODE and SHUTDOWN are serviceable, but all other functions are unserviceable, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Install the LSAP identified as FLIGHT_MM. Do one of these tasks: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).
 - (a) If the functions, other than LOAD MODE or SHUTDOWN, become serviceable, then you corrected the fault.
 - (b) If the functions remain unserviceable, then continue.
- (2) Install the LSAPs that follow. Do one of these tasks: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).
 - (a) DA CORE
 - (b) ADM
 - (c) FLIGHT_MM
 - (d) PART 25 LINUX
 - (e) Linux P121.
 - 1) If the functions EFB MAINTENANCE page, other than LOAD MODE or SHUTDOWN, become serviceable, then you corrected the fault.

————— **END OF TASK** —————

893. DU OR DU FIBER FAIL Message - Fault Isolation

A. Description

- (1) Use this task when the DU OR DU FIBER FAIL message shows on the DU.

B. DU OR DU FIBER FAIL - Fault Isolation Procedure

- (1) Remove the applicable DU, N46103 or N46203 Display Unit Removal, AMM TASK 46-11-02-000-801.

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- (2) Remove the applicable EU, N46102 or N46202 Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (3) Do this check of the serial fiber connection wiring between the EU and the DU (WDM 46-11-11):

EU (captain)	DU (captain)
DN46102AA	DA46103P
pin 4	pin 10
pin 8	pin 9

EU (F/O)	DU (F/O)
DN46202AA	DA46203P
pin 4	pin 10
pin 8	pin 9

- (a) If there is problem, repair the wiring.
 - 1) If the DU OR DU FIBER FAIL message does not show on the DU screen, then you corrected the fault.
 - 2) If the DU OR DU FIBER FAIL message shows on the DU screen, then continue.
- (4) Swap the captain's and F/O's DUs, These are the tasks: Display Unit Removal, AMM TASK 46-11-02-000-801 Display Unit Installation, AMM TASK 46-11-02-400-801
 - (a) If the DU OR DU FIBER FAIL message does not show on the DU screen, then you corrected the fault.
 - (b) If the DU OR DU FIBER FAIL message shows on the DU screen, then continue.
- (5) Do these steps to access the LOAD MODE while the system is starting up.
 - (a) Select SYSTEM PAGE from the MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM PAGE.
 - (c) Select LOAD MODE from the EFB MAINTENANCE page.
- (6) Install the following software per the data in 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301. To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (a) DA CORE
 - (b) ADM
 - (c) FLIGHT_MM
 - (d) PART 25 LINUX
 - (e) Linux P121
 - 1) If the DU OR DU FIBER FAIL message does not show on the DU screen, then you corrected the fault.
 - 2) If the DU OR DU FIBER FAIL message shows on the DU screen, then continue.
- (7) Replace the applicable EU, N46102 or N46202. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801,
Electronic Unit Installation, AMM TASK 46-11-03-400-801.

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- (a) If the DU operates normally, you corrected the fault.

————— **END OF TASK** —————

894. **OP SW FAILURE message - Fault Isolation**

A. Description

- (1) Use this fault isolation task when the OP SW FAILURE message shows on the DU.
- (2) This message shows when one of the conditions that follow occurs:
 - (a) EU hard drive corruption
 - (b) When there are Linux and Windows timing variances when the system goes into load mode
 - (c) When a flight mode failure occurs on the ground
 - (d) When key configuration files or Astronautics software part (ACZ parts) are missing

B. Possible Causes

- (1) Software
- (2) EU-L, N46102
- (3) EU-R, N46202.

C. Initial Evaluation

- (1) On the applicable DU that shows the OP SW FAILURE message, push the LSK adjacent to RETURN.
 - (a) Make sure the LOAD MODE page shows on the DU.
- (2) If DISK UTILITIES is the only button that is gray in color, do the Only the Disk Utilities Button is Gray - Fault Isolation procedure below.

NOTE: A button with a gray background and white text shows the function is available and serviceable. A black background with cyan border and text shows the function is not available or serviceable at this time.

- (3) If the other buttons are gray in color, do the All Buttons Are Gray - Fault Isolation procedure below.

D. Only the Disk Utilities Button is Gray - Fault Isolation

- (1) Push the LSK adjacent to DISK UTILITIES.
- (2) If the REPAIR LINUX and REIMAGE LINUX options are the only gray buttons, then do the steps that follow:
 - (a) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (b) If the OP SW FAILURE message does not show, there was an intermittent fault.
- (c) If the OP SW FAILURE message shows again, then continue.
- (3) Do the steps that follow.
 - (a) If REIMAGE LINUX was used before but did not correct this fault, then do the steps that follow:

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- 1) Remove the applicable EU and install a serviceable EU. Do these tasks: (Electronic Unit Removal, AMM TASK 46-11-03-000-801, Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- 2) If the OP SW FAILURE message does not show, then you corrected the fault.
- (b) If REIMAGE LINUX was not used before to correct this fault, then do the steps that follow:
 - 1) Download all applicable downloadable files that reside on the Linux partition (for example; fault.log, fault.log.archive) per your airline operation procedure. To download EU data, do this task: Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803.



MAKE SURE THAT YOU KNOW AND FOLLOW YOUR AIRLINE PROCEDURE. THE REIMAGE LINUX FUNCTION ERASES FILES. YOUR AIRLINE PROCEDURE CAN REQUIRE YOU TO COPY ALL DOWNLOADABLE LOG FILES BEFORE YOU REIMAGE LINUX. IF YOU DO NOT KEEP A COPY OF ALL APPLICABLE LINUX PARTITIONS, ALL FILES AND DATA WILL BE ERASED.

- 2) Push the LSK adjacent to REIMAGE LINUX.
- 3) Push the LSK adjacent to CONFIRM.
- 4) Make sure you do not exit the LOAD MODE when the LINUX reimage is complete.
- 5) Install the software parts that follow per the data in (46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 Figure 301 or Figure 302 or Figure 303. To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - a) DA CORE
 - b) ADM
 - c) FLIGHT_MM
 - d) PART 25 LINUX
 - e) PART 121 LINUX
 - f) TPA APPLICATION
 - g) TPA SUPPLIER CONFIG
 - h) TPA CUSTOMER CONFIG
 - i) TPA DATABASE

NOTE: This list of software has more parts than other lists in this task because the LINUX reimage operation deletes these software parts.
- 6) Push the LSK adjacent to REBOOT TO MAIN at load completion.
- 7) If the OP SW FAILURE message does not show, then you corrected the fault.

E. All Buttons Are Gray - Fault Isolation

- (1) Push the LSK adjacent to EXTERNAL DATALOAD.
- (2) Download all applicable downloadable files that reside on the Linux partition (for example; fault.log, fault.log.archive) per your airline operation procedure. To download EU data, do this task: Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803.

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- (3) Do a check of the software to make sure the LSAP's that follow are installed (Electronic Unit - Software Check, AMM TASK 46-11-03-860-803):
- (a) DA CORE
 - (b) ADM
 - (c) FLIGHT_MM
 - (d) PART 25 LINUX
 - (e) PART 121 LINUX
- 1) If all necessary software parts are installed, then do the steps that follow:
- a) Push the LSK adjacent to REBOOT TO MAIN.
 - <1> If the OP SW FAILURE message does not show, then you corrected the fault.
 - <2> If the OP SW FAILURE message shows again, then continue.
 - b) If REIMAGE LINUX was used before but did not correct this fault, then do the steps that follow:
 - <1> Remove the the applicable EU, and install a serviceable EU. Do these tasks: (Electronic Unit Removal, AMM TASK 46-11-03-000-801, Electronic Unit Installation, AMM TASK 46-11-03-400-801).
 - <2> If the OP SW FAILURE message does not show, then you corrected the fault.
 - c) If REIMAGE LINUX was not used before to correct this fault, then do the steps that follow:



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- <1> Push the LSK adjacent to REIMAGE LINUX.
- <2> Push the LSK adjacent to CONFIRM.
- <3> Make sure you do not exit the LOAD MODE when the LINUX reimage is complete.
- <4> Install the software parts that follow per the data in (46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 Figure 301 or Figure 302 or Figure 303. To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - <a> DA CORE
 - ADM
 - <c> FLIGHT_MM
 - <d> PART 25 LINUX
 - <e> PART 121 LINUX

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- <f> TPA APPLICATION
- <g> TPA SUPPLIER CONFIG
- <h> TPA CUSTOMER CONFIG
- <i> TPA DATABASE

NOTE: This list of software has more parts than other lists in this task because the LINUX reimage operation deletes these software parts.

- <5> Push the LSK adjacent to REBOOT TO MAIN at load completion.
- <6> If the OP SW FAILURE message does not show, then you corrected the fault.

- 2) If all necessary software parts are not installed, then do the steps that follow:
 - a) Install the software parts that follow per the data in (46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 Figure 301 or Figure 302 or Figure 303. To install software, do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - <1> DA CORE
 - <2> ADM
 - <3> FLIGHT_MM
 - <4> PART 25 LINUX
 - <5> PART 121 LINUX
 - b) Push the LSK adjacent to REBOOT TO MAIN at load completion.
 - c) If the OP SW FAILURE message does not show, then you corrected the fault.

————— **END OF TASK** —————

896. Invalid Configuration - Fault Isolation

A. Description

- (1) This task is for this fault message:
 - (a) INVALID CONFIGURATION
- (2) This message shows when the part is invalid.

B. Fault Isolation Procedure

- (1) Tell your EFB operations center. The JEP-xx-DMEP-yyyy software part number is invalid, needs to be re-created and then installed.

————— **END OF TASK** —————

897. Tail Changed Error - Fault Isolation

A. Description

- (1) This task is for FAULT LOG message:
 - (a) TAIL CHANGED ERROR
- (2) This fault shows when EFB DDM application failed to sense the airplane tail ID.

NOTE: There is no related fault message that shows on the SYSTEM page for this fault.

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B. Fault Isolation Procedure

- (1) Do check of the Tail ID and, if necessary, change the Tail ID in the DU so that it is the same as the flight compartment placard tail ID TAIL ID Check, AMM TASK 46-11-03-860-805.
 - (a) If the fault continues, ignore the fault.

————— END OF TASK —————

910. Crossload Failed Problems - Fault Isolation Task

A. Description

- (1) This task is for the problem that follows:
 - (a) After you started the CROSSLOAD function, the DU shows FAILED.
- (2) This problem occurs during the crossload sequence, when the software part failed the validation check, or one or more component parts is not available from the source EU.

B. Possible Causes

- (1) LSAP.

C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

D. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, Figure 301 or Figure 302 or Figure 303.

E. Initial Evaluation

- (1) Identify the LSAP that failed the crossload. Do the steps that follow:
 - (a) Push the Back button (<=), or Menu button, and set the DU to show the MAIN MENU.
 - (b) From the MAIN MENU, push the SYSTEM PAGE button.
 - (c) From the SYSTEM PAGE, push the EFB MAINTENANCE button.
 - (d) From the EFB MAINTENANCE page, push the SYSTEM CONFIG button.
 - (e) Examine the SYSTEM CONFIG page. Make a record of each software part that failed the crossload operation:
 - 1) A failed software part shows as amber in color.
 - 2) A failed software part shows FAILED after the part name.
- (2) Compare the failed software part with Figure 301 or Figure 302 or Figure 303. Find and make a record of the related operating system and partition (Linux, or Windows).

F. Fault Isolation Procedure

- (1) For Windows OS, and Linux OS partitions, install the applicable LSAP from the Portable Data Loader (PDL) only. Do this task: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
 - (a) Install the applicable LSAP to EU-L and EU-R at the same time.

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G. Repair Confirmation

- (1) Make sure that the software parts are installed correctly:
 - (a) From the EFB MAINTENANCE page, select SYSTEM CONFIG.
 - (b) On the SYSTEM CONFIG page, make sure that the software part(s) show white in color.

————— END OF TASK —————

911. Printer Initialization Problems - Fault Isolation Procedure

A. General

- (1) This task is for the EFB fault log message that follows:
 - (a) UNABLE TO INITIALIZE PRINTER
- (2) You see this fault log message when the printer failed to install or data within the WinPrint.ini file is invalid.

B. Possible Causes

- (1) Software

C. Fault Isolation Procedure

- (1) Tell your airline EFB operations that the PART 121 configuration file (Software P/N: ACZ52-9734-0300) does not support the printer interface. Airline operations need to do a check and rebuild of all PART 121 configuration file components that define printer service.

————— END OF TASK —————

924. DU FAULT Message - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) DU FAULT
- (2) This fault message shows in the FAULT LOG page when there is a problem with the DU touchscreen calibration.
- (3) At the same time the DU FAULT message shows in the fault log, the message TOUCHSCREEN CALIBRATION REQUIRED shows on the SYSTEM page.
 - (a) These two messages are for the same fault and will have the same date and time stamp.

B. Possible Causes

- (1) Problems with touchscreen calibration

C. Fault Isolation Procedure

- (1) Do a calibration of the touchscreen. Do this task: Display Unit - Touchscreen Calibration Procedure, AMM TASK 46-11-02-820-801.
 - (a) If the DU FAULT message in the EFB fault log and the message TOUCHSCREEN CALIBRATION REQUIRED on the SYSTEM page do not show with a new date and time stamp, then you corrected the fault.

————— END OF TASK —————

936. ACARS to Right EFB Input Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO ACARS RIGHT INPUT DATA

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- (2) This fault message shows in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the Left AIMS DCMF bus and the Right EFB for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There are no additional messages that show in the SYSTEM or FAULT LOG page associated with this fault message.

B. Possible Causes

- (1) Wiring
- (2) F/O's EU, N46202

C. Initial Evaluation

- (1) Do these steps from the F/O's EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the Left AIMS DCMF bus (ACARS).
 - 1) If the ACARS status is PRESENT and the NO ACARS RIGHT INPUT DATA fault message does not show, then there was an intermittent fault.
 - 2) If the ACARS status is ABSENT and the NO ACARS RIGHT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS Status ABSENT below.
 - 3) If the ACARS status is PRESENT and the NO ACARS RIGHT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS Status PRESENT below.

D. Fault Isolation Procedure - ACARS Status Absent

- (1) Remove the F/O's EU, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable IOM (M009) from the left AIMS cabinet, M31101.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the Right EU and these pins at the Left AIMS cabinet IOM connector WDM 23-27-11 and SSM 31-41-03:

E/E Bay

Right EU	Left AIMS
DN46202AB	Cabinet
	J420-A
pin A2	pin F13
pin B2	pin G14

- (a) If you find a problem, repair the wiring.
- (b) Install the F/O's EU, N46202. To install the EU, do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM (M009) into the left AIMS cabinet, M31101.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801

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- 1) If the NO ACARS RIGHT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

E. Fault Isolation Procedure - ACARS Status Present

- (1) Replace the F/O's EU, N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) If the NO ACARS RIGHT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— END OF TASK —————

937. ACARS 2 to Right EFB Input Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO ACARS2 RIGHT INPUT DATA
- (2) This fault message shows in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the Right AIMS DCMF bus and the Right EFB for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There are no additional messages that show in the SYSTEM or FAULT LOG page associated with this fault message.

B. Possible Causes

- (1) Wiring
- (2) F/O's EU, N46202

C. Initial Evaluation

- (1) Do these steps from the F/O's EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the Right AIMS DCMF bus (ACARS2).
 - 1) If the ACARS2 status is PRESENT and the NO ACARS2 RIGHT INPUT DATA fault message does not show, then there was an intermittent fault.
 - 2) If the ACARS2 status is ABSENT and the NO ACARS2 RIGHT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS2 Status ABSENT below.
 - 3) If the ACARS2 status is PRESENT and the NO ACARS2 RIGHT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS2 Status PRESENT below.

D. Fault Isolation Procedure - ACARS2 Status Absent

- (1) Remove the F/O's EU, N46202. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable IOM (M009) from the right AIMS cabinet, M31201.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801

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- (3) Do this check for continuity between these pins at the Right EU and these pins at the Right AIMS cabinet IOM connector WDM 23-27-12 and SSM 31-41-06:

E/E Bay

Right EU DN46202AB	Right AIMS Cabinet J420-A
pin J1	pin F13
pin K1	pin G14

- (a) If you find a problem, repair the wiring.
- (b) Install the F/O's EU, N46202. To install the EU, do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM (M009) into the Right AIMS cabinet, M31201.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO ACARS2 RIGHT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

E. Fault Isolation Procedure - ACARS2 Status Present

- (1) Replace the F/O's EU, N46202. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) If the NO ACARS2 RIGHT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

— END OF TASK —

938. ACARS to Left EFB Input Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO ACARS LEFT INPUT DATA
- (2) This fault message shows in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the Left AIMS DCMF bus and the Left EFB for 30 seconds after the traffic has started, but the I/O controller is still functional.
- (3) There are no additional messages that show in the SYSTEM or FAULT LOG page associated with this fault message.

B. Possible Causes

- (1) Wiring
- (2) Captain's EU, N46102

C. Initial Evaluation

- (1) Do these steps from the Captain's EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the Left AIMS DCMF bus (ACARS).

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- 1) If the ACARS status is PRESENT and the NO ACARS LEFT INPUT DATA fault message does not show, then there was an intermittent fault.
- 2) If the ACARS status is ABSENT and the NO ACARS LEFT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS Status ABSENT below.
- 3) If the ACARS status is PRESENT and the NO ACARS LEFT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS Status PRESENT below.

D. Fault Isolation Procedure - ACARS Status Absent

- (1) Remove the Captain's EU, N46102. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable IOM (M009) from the left AIMS cabinet, M31101.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the Left EU and these pins at the Left AIMS cabinet IOM connector WDM 23-27-11 and SSM 31-41-03:

E/E Bay

Left EU	Left AIMS Cabinet
DN46102AB	J420-A
pin A2	pin F13
pin B2	pin G14

- (a) If you find a problem, repair the wiring.
- (b) Install the Captain's EU, N46102. To install the EU, do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM (M009) into the left AIMS cabinet, M31101.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO ACARS LEFT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

E. Fault Isolation Procedure - ACARS Status Present

- (1) Replace the Captain's EU, N46102. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) If the NO ACARS LEFT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— **END OF TASK** —————

939. ACARS 2 to Left EFB Input Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) NO ACARS2 LEFT INPUT DATA
- (2) This fault message shows in the FAULT LOG page when there is a total communication loss of the ARINC 429 receiver channels between the Right AIMS DCMF bus and the Left EFB for 30 seconds after the traffic has started, but the I/O controller is still functional.

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- (3) There are no additional messages that show in the SYSTEM or FAULT LOG page associated with this fault message.

B. Possible Causes

- (1) Wiring
- (2) Captain's EU, N46102

C. Initial Evaluation

- (1) Do these steps from the Captain's EFB MAIN MENU page:
 - (a) Select SYSTEM PAGE from the EFB MAIN MENU page.
 - (b) Select EFB MAINTENANCE from the SYSTEM page.
 - (c) Select INPUT MONITORING from the EFB MAINTENANCE page.
 - (d) Select GEN INPUT MONITOR from the INPUT MONITORING page.
 - (e) Check the ARINC 429 bus status for the Left AIMS DCMF bus (ACARS2).
 - 1) If the ACARS2 status is PRESENT and the NO ACARS2 LEFT INPUT DATA fault message does not show, then there was an intermittent fault.
 - 2) If the ACARS2 status is ABSENT and the NO ACARS2 LEFT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS2 Status ABSENT below.
 - 3) If the ACARS2 status is PRESENT and the NO ACARS2 LEFT INPUT DATA fault message shows, then do the Fault Isolation Procedure - ACARS2 Status PRESENT below.

D. Fault Isolation Procedure - ACARS2 Status Absent

- (1) Remove the Captain's EU, N46102. To remove the EU, do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (2) Remove the applicable IOM (M009) from the right AIMS cabinet, M31201.
Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801
- (3) Do this check for continuity between these pins at the Left EU and these pins at the Right AIMS cabinet IOM connector WDM 23-27-12 and SSM 31-41-06:

E/E Bay

Left EU	Right AIMS
DN46102AB	Cabinet
	J420-A
pin J1	pin F13
pin K1	pin G14

- (a) If you find a problem, repair the wiring.
- (b) Install the Captain's EU, N46102. To install the EU, do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (c) Install the IOM (M009) into the Right AIMS cabinet, M31201.
Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801
 - 1) If the NO ACARS2 LEFT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

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E. Fault Isolation Procedure - ACARS2 Status Present

- (1) Replace the Captain's EU, N46102. To replace the EU, these are the tasks: Electronic Unit Removal, AMM TASK 46-11-03-000-801 and Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) If the NO ACARS2 LEFT INPUT DATA fault message does not show again in the FAULT LOG with a new time stamp, then you corrected the fault.

————— END OF TASK —————

940. DDM Customer Configuration Problems - Fault Isolation

A. General

- (1) This task is for this fault message:
 - (a) DDM CUST CFG MISSING OR INVALID
- (2) This fault message shows in the FAULT LOG page when the ADC customer config part is configured to start the DDM application.
- (3) There are no additional messages that show in the SYSTEM or FAULT LOG page associated with this fault message.

B. Possible Causes

- (1) Software

C. Fault Isolation Procedure

- (1) Install the ADC Customer Config software part.

Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801

Figure 301 or Figure 302 or Figure 303

NOTE: Make sure you install the ADC customer config software part that is not configured to start the DDM application.

 - (a) If the DDM CUST CFG MISSING OR INVALID fault message does not show with a new date and time stamp, then you corrected the fault.

————— END OF TASK —————

941. All MAIN MENU Application Buttons Show But Are Not Selectable - Fault Isolation

A. Description

- (1) Use this fault isolation task when all MAIN MENU applications show on the MAIN MENU but are not selectable eight (8) minutes after EFB power-up.

NOTE: For this fault, only the MAIN MENU application buttons are inactive. This does not apply to the SYSTEM PAGE button and IDENT PAGE button on MAIN MENU. Those two functions are selectable.

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- (a) At the same time it is possible the EFB INOP fault message shows on the EFB SYSTEM page.

NOTE: The EFB INOP fault message shows when EFB program parity is not correct (EFB program discrete wiring has a fault).

NOTE: It is also possible the PROGRAM PIN PARITY FAILURE fault message shows in the FAULT LOG. To gain access to the FAULT LOG, from the SYSTEM PAGE select the EFB MAINTENANCE button. Then, from the EFB MAINTENANCE page, select the FAULT LOG button. All of these indications are for the same fault.

B. Possible Causes

- (1) Program Pin Wiring

C. Fault Isolation Procedure

- (1) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (a) Wait for eight (8) minutes.
- (b) If all MAIN MENU applications show on the MAIN MENU, are selectable eight (8) minutes after EFB power-up, the EFB INOP and the PROGRAM PIN PARITY FAILURE FAULT messages do not show with a new date and time stamp, then you corrected the fault.
- (c) If the fault continues, go to the next step.
- (2) Select the SYSTEM PAGE from the EFB MAIN MENU.
- (a) Select EFB MAINTENANCE from the SYSTEM PAGE page.
- (b) Push the INPUT MONITORING button on the EFB MAINTENANCE page.
- (c) Push the ANALOG DISCRETES button on the INPUT MONITORING page.
- (d) If you do this check on the first officer's DU, make sure the program pin code shows 2F1 for the right EU.
- (e) If you do this check on the captain's DU, make sure the program pin code shows 2F4 for the left EU.
- (f) If the PROGRAM PIN CODE is not correct, then continue.
- (3) If the problem is on the captain's EFB, do this check of the wiring:
- (a) Remove the captain's EU, N46102. Do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (b) On connector DN46102AB, pin B8, do a check for continuity to ground and check pin D8 to make sure there is not continuity to ground (WDM 46-11-11).
- 1) If pin B8 does not show continuity to ground or pin D8 shows continuity to ground:
- a) Repair the wiring.
- b) Install the captain's EU, N46102. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- c) On the ANALOG DISCRETES page, look at the PROGRAM PIN CODE and make sure it shows 2F4.

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- d) If program pin code 2F4 shows, all MAIN MENU applications show on the MAIN MENU and are selectable eight (8) minutes after EFB power-up, the EFB INOP and PROGRAM PIN PARITY FAILURE fault messages do not show with a new date and time stamp, then you corrected the fault.
- (4) If the problem is on the first officer's EFB, do this check of the wiring:
 - (a) Remove the first officer's EU, N46202. Do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
 - (b) On connector DN46202AB, pin D8, do a check for continuity to ground and check pin B8 and make sure there is not continuity to ground. (WDM 46-11-21).
 - 1) If pin D8 does not show continuity to ground or pin B8 shows continuity to ground:
 - a) Repair the wiring.
 - b) Install the first officer's EU, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - c) On the ANALOG DISCRETES page, look at the PROGRAM PIN CODE and make sure it shows 2F1.
 - d) If program pin code 2F1 shows, all MAIN MENU applications show on the MAIN MENU and are selectable eight (8) minutes after EFB power-up, the EFB INOP and PROGRAM PIN PARITY FAILURE fault messages do not show with a new date and time stamp, then you corrected the fault.
- (5) If the problem is on the first officer's EFB, do this check of the wiring:
 - (a) Remove the first officer's EU, N46202. Do this task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
 - (b) On connector DN46202AB, pin D8, do a check for continuity to ground and check pin B8 and make sure there is not continuity to ground. (WDM 46-11-21).
 - 1) If pin D8 does not show continuity to ground or pin B8 shows continuity to ground:
 - a) Repair the wiring.
 - b) Install the first officer's EU, N46202. Do this task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - c) On the ANALOG DISCRETES page, look at the PROGRAM PIN CODE and make sure it shows 2C1.
 - d) If program pin code 2C1 shows, all MAIN MENU applications show on the MAIN MENU and are selectable eight (8) minutes after EFB power-up, the EFB INOP and PROGRAM PIN PARITY FAILURE fault messages do not show with a new date and time stamp, then you corrected the fault.

END OF TASK

943. LINUX FAILURE Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps for when the EFB Fault Log shows this message:
 - (a) LINUX FAILURE
- (2) This fault can occur after the installation, or re-image of Linux OS from LOAD MODE, when REBOOT TO MAIN is pressed.
 - (a) This fault can also cause the words NO VIDEO to show on the EFB DU.

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B. Possible Causes

- (1) Software.

C. Circuit Breakers

- (1) These are the primary circuit breakers related to the fault:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

D. Related Data

- (1) NO VIDEO message shows on the DU - Fault Isolation, 46-11 TASK 887.

E. Fault Isolation

- (1) If NO VIDEO remains on the DU, then go to 46-11 TASK 887.
- (2) If the EFB DU now operates correctly, examine the EFB Fault Log.
 - (a) If the log shows the LINUX FAILURE fault, and fault time-stamp agrees with the occurrence of the NO VIDEO message, then the fault is intermittent.
 - (b) Erase, and ignore the LINUX FAILURE fault message.

————— END OF TASK —————

948. Application FAILURE CRC Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the fault message:
 - (a) <application button name> FAILURE CRC
 - (b) Application button name refers to the name of the software application as it shows on the display unit.
- (2) The EFB shows this fault message on the FAULT LOG page when the specified application fails Cyclic Redundancy Checking (CRC).
- (3) This fault causes the maintenance message 'APPLICATION FAILURE' to show in the SYSTEM LOG and FAULT LOG page. These two maintenance messages, and the fault message, refer to the same fault occurrence when they have the same date and time stamp.
- (4) This fault causes the FAULT icon to show in two places:
 - (a) The FAULT icon shows on the MAIN MENU adjacent to the SYSTEM PAGE button.
 - 1) This icon goes off when you push the SYSTEM PAGE button.
 - (b) The FAULT icon shows as part of the page header, in the upper left corner of each page.
 - 1) This icon goes off when you make the ACKNOWLEDGE NEW FAULTS selection on the SYSTEM page.

NOTE: Make sure you make a record of all new faults before you push the ACKNOWLEDGE NEW FAULTS button. New faults show white in color. Faults that are acknowledged show cyan in color.

B. Possible Causes

- (1) Software.

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C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, Figure 301 or Figure 302 or Figure 303.

D. Initial Evaluation

- (1) Do these steps to examine the software condition
 - (a) From the EFB MAIN MENU, push the SYSTEM PAGE button.
 - (b) From the SYSTEM PAGE, push EFB MAINTENANCE.
 - (c) From the EFB MAINTENANCE page, push SYSTEM CONFIG.
 - (d) Examine the SYSTEM CONFIG page for software parts that show amber in color.

NOTE: Items that show amber in color have failed CRC, and are unserviceable. Items listed in white color passed CRC, and are serviceable.

 - 1) Make a record of each software part that is unserviceable.
 - 2) For the unserviceable parts, do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Install the applicable software part, as specified by the fault. Do this task:
Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801.
46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303).
 - (a) If the application, as specified by the fault, launches successfully then you corrected the fault.
 - (b) If the application, specified by the fault, does not launch successfully, then continue.
- (2) If the problem continues, do the steps that follow:
 - (a) Install the applicable software applications. This is the task:
Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801.
46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303).
 - 1) If the applicable application, specified by the fault, now launches successfully, then you corrected the problem.
 - 2) If the applicable application does not launch successfully, then continue.
- (3) Install the all of the software parts that follow. This is the task:
Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801.
46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303).
 - (a) Windows OS

NOTE: We recommend that you install Windows OS first, reboot, and then install the other parts after the reboot step.
 - (b) APP_SYS_SUP

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- (c) ADC APPLICATION
- (d) ADC CUSTOMER CONFIG
- (4) Check again the fault log page.
 - (a) If the application, as specified by the fault, launches successfully then you corrected the fault.
 - (b) If the application, specified by the fault, does not launch successfully, then continue.
- (5) If the fault does not clear, tell your EFB maintenance operations about the specified fault log message.
 - (a) It is possible that the ADC CUSTOMER CONFIG data is not configured correctly.

F. Repair Confirmation

- (1) If the specified application launches successfully and the <application button name> fault message does not show with a new date and time stamp, you corrected the fault.

————— END OF TASK —————

949. Application FAILED PROCESS Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the fault message:
 - (a) <application button name> FAILED PROCESS
 - (b) The application button name refers to the name of the software application as it shows on the touchscreen button.
- (2) This fault message shows on the FAULT LOG page when the application dispatch controller (ADC) does not receive the expected result from the application. This does not apply to Flight Initiation and Flight Close.
- (3) This fault causes the maintenance message 'APPLICATION FAILURE' to show in the SYSTEM LOG and FAULT LOG page. These two maintenance messages, and the fault message, refer to the same fault occurrence when they have the same date and time stamp.
- (4) This fault causes the FAULT icon to show in two places:
 - (a) The FAULT icon shows on the MAIN MENU adjacent to the SYSTEM PAGE button.
 - 1) This icon goes off when you push the SYSTEM PAGE button.
 - (b) The FAULT icon shows as part of the page header, in the upper left corner of each page.
 - 1) This icon goes off when you make the ACKNOWLEDGE NEW FAULTS selection on the SYSTEM page.

NOTE: Make sure you make a record of all new faults before you push the ACKNOWLEDGE NEW FAULTS button. New faults show white in color. Faults that are acknowledged show cyan in color.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, Figure 301 or Figure 302 or Figure 303.

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D. Initial Evaluation

- (1) From the EFB MAIN MENU:
 - (a) Push the SYSTEM PAGE button.

NOTE: This step causes the FAULT icon adjacent to the SYSTEM PAGE button to not show.
 - (b) On the SYSTEM page, push the RESTART button.

NOTE: The EFB can take approximately eight minutes to start again, and show the MAIN MENU.
 - (c) When the MAIN MENU shows again, launch the application specified by the initial fault.
 - 1) If the application launches successfully, then the fault is intermittent.
 - 2) If the specified application does not launch successfully within 5 minutes, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Install all software parts that are related to the failed application. This is the task:

Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801

46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303).

 - (a) Do the repair confirmation steps that follow.

F. Repair Confirmation

- (1) Find the application button, as specified by the initial fault, and start the application.
 - (a) If the specified application launches, and operates correctly, then continue.
- (2) Examine the EFB FAULT LOG.
 - (a) From the EFB MAINTENANCE page, push the FAULT LOG button.
 - (b) If the fault log shows no new faults, then you corrected the problem.

————— END OF TASK —————

954. UMS VALIDATION FAILED Fault Message - Fault Isolation

A. Description

- (1) This task is for the fault log message:
 - (a) UMS VALIDATION FAILED
- (2) This fault message shows when the application dispatch controller (ADC) fails during configuration check. The fault will cause the ADC to stop or terminate Windows applications (or Windows applications will not start).
- (3) When you see the UMS VALIDATION FAILED fault message, it is possible that all Windows application buttons are CYAN in color or do not show.
- (4) The WINDOWS OR ADC FAILURE fault message can show at the same time. If the two messages have the same date and time stamp, then the two messages are for the same fault.

B. Possible Causes

- (1) Software

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C. Initial Evaluation

- (1) From the EFB main menu, push the SYSTEM page.
- (2) On the SYSTEM page, push the RESTART button or LSK.
 - (a) If Windows applications start correctly and the UMS VALIDATION FAILED fault message does not show with a new date and time stamp, then you corrected the fault.
 - (b) If Windows applications do not start, then do the fault isolation steps below.

D. Fault Isolation Procedure

- (1) Install the software that follows (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801 and (Figure 301 or Figure 302 or Figure 303):
 - (a) ADC APPLICATION
- (2) If Windows applications start correctly and the UMS VALIDATION FAILED fault message (and/or the WINDOWS OR ADC FAILURE fault message) does not show with a new date and time stamp, then you corrected the fault.

————— END OF TASK —————

955. WIN25 CONFIG MISMATCH Fault Message - Fault Isolation

A. Description

- (1) This task is for the fault log message:
 - (a) WIN25 CONFIG MISMATCH
- (2) The WINDOWS OR ADC FAILURE fault message can show at the same time. If the two messages have the same date and time stamp, then the two messages are for the same fault.
- (3) This fault message shows when the application dispatch controller (ADC) fails. The fault will cause the ADC to stop or terminate Windows applications (or Windows applications will not start).
- (4) When you see this fault, it is possible that all Windows application buttons are CYAN in color or do not show.

B. Possible Causes

- (1) Software:
 - (a) The tail ID is not available
 - (b) The major or minor model is not available
 - (c) There is a major or minor model mismatch (between I/O and the PART 25 WINDOWS software, BFBxx-W025-XXXX part).
 - (d) Software must be re-loaded

C. Fault Isolation Procedure

- (1) Make sure the tail ID is correct as follows:
 - (a) From the MAIN MENU on the DU-R and the DU-L, push the LSK adjacent to the IDENT PAGE.
 - (b) If the TAIL ID on DU-L and DU-R are the same as the flight compartment placard, then there was an intermittent fault.
 - (c) If the TAIL ID on DU-L and DU-R are not the same as the flight compartment placard, then change the tail ID. This is the task: TAIL ID Check, AMM TASK 46-11-03-860-805.

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- 1) If the WIN25 CONFIG MISMATCH fault message does not show with a new date and time stamp, then you corrected the fault.
- 2) If the fault continues, go to the next step.
- (2) Make sure the BFBxx-W025-zzzz (PART 25 WINDOWS software) is correct for the aircraft configuration (Tail ID, major model, minor model and Engine Type).
 - (a) Tell your EFB engineering maintenance operations department to verify the installed PART 25 WINDOWS software.
 - 1) If the WIN25 CONFIG MISMATCH fault message does not show with a new date and time stamp, then you corrected the fault.
 - 2) If the fault continues, go to the next step.
- (3) If the fault continues, re-install the PART 25 WINDOWS software part (BFBxx-W025-zzzz).
Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801, Figure 301 or Figure 302 or Figure 303.
 - (a) If the WIN25 CONFIG MISMATCH fault message does not show with a new date and time stamp, then you corrected the fault.

END OF TASK

957. CFG FAILED Fault Log Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) <Part number> CFG FAILED
 - 1) <Part Number> refers to the identity of the loadable software airplane part (LSAP).
 - a) The part number can show one of two ways:
 - MMMxx-PPPP-ssss
 - MMMPPPPSSSS.
 - 2) CFG refers to the applicable configuration software part.
- (2) This message shows on the EFB fault log page when one or more Windows-based applications is unserviceable.

NOTE: The fault can occur if an application does not launch correctly, or terminates unexpectedly.
- (3) This fault can cause the SYSTEM FAULT LOG, on the SYSTEM page, to show these messages:
 - (a) APPLICATIONS FAILURE

NOTE: If the time-stamp for the FAULT LOG message, and SYSTEM FAULT LOG message agree, then the two messages are for the same fault.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

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D. Initial Evaluation

- (1) Set the DU to show the SYSTEM CONFIG page.
 - (a) From the MAIN MENU, push the SYSTEM PAGE button, or adjacent LSK.
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the SYSTEM CONFIG button.
- (2) Examine the SYSTEM CONFIG page.

NOTE: Software part numbers that show white in color are serviceable. Software part numbers that show amber in color are unserviceable.

 - (a) If any software part shows amber in color, then do these steps:
 - 1) Make a record of the part number and time-stamp of each part that shows amber in color.
 - 2) Do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) From your record, install the applicable software part numbers. Do one of these tasks:
Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801.
46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301 (Figure 301 or Figure 302 or Figure 303).
 - (a) Do a check of the operation of the application:
 - (b) If it launches correctly, with no new faults, then you corrected the fault.
 - (c) If one or more applications do not launch correctly, then continue.
- (2) Tell your maintenance operations, or EFB software engineering group about this problem. They must make sure that the software part is serviceable for the specified aircraft number.

F. Repair Confirmation

- (1) If the applications on the MAIN MENU launch, and operate correctly, and there are no new fault messages, then you corrected the problem.

————— END OF TASK —————

958. Comm Maintenance Page Problems - Fault Isolation

A. Description

- (1) This task gives steps to correct the EFB when one of these conditions occurs:
 - (a) The COMM MAINT button on the EFB MAINTENANCE page is unserviceable.
 - (b) The COMM MAINTENANCE page is missing, or blank.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

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D. Initial Evaluation

- (1) Set the DU to show the COMM MAINTENANCE page:
 - (a) From the MAIN MENU, push SYSTEM PAGE.
 - (b) Push EFB MAINTENANCE.
 - (c) Push COMM MAINT.
 - 1) If the button is not active, or the COMM MAINTENANCE page does not show, then do the fault isolation procedure that follows.
 - 2) If COMM MAINTENANCE shows, and operates correctly, then the fault is intermittent.

E. Fault Isolation Procedure

- (1) Examine the FAULT LOG as follows:
 - (a) From the EFB MAINTENANCE page, push the FAULT LOG button.
 - (b) Find each message that follows, and if present, make a record of the name and time-stamp data.
 - EWCB Failed Startup
 - eCMF Failed CRC
 - SMF Failed CRC
 - eFTS Failed CRC
 - CONTROLLERAPP Failed CRC.
- (2) Restart the EFB as follows:
 - (a) Push the MENU bezel key.
 - (b) On the MAIN MENU, make sure that all application buttons show gray in color.
 - (c) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

NOTE: The EFB can take approximately eight minutes to reboot and show the MAIN MENU.

- (3) Examine again the COMM MAINTENANCE page.
 - (a) If the COMM MAINTENANCE page shows, and operates correctly, then you corrected the problem.
 - (b) If the COMM MAINT button is unserviceable, or the application does not show, then continue.
- (4) Install the LSAP as follows.
 - EFB WIRELESS SOFTWARE, part number OPTxx-EWCB-zzzz.Do one of these tasks: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (5) Examine the SYSTEM CONFIG page as follows:
 - (a) From the MAIN MENU, push SYSTEM PAGE.

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- (b) Push the EFB MAINTENANCE button.
- (c) Push the SYSTEM CONFIG button.
- (d) Make sure that all LSAPs show white in color on the SYSTEM CONFIG page.
 - 1) If the software parts you installed do not show white in color, allow up to 10 minutes for EU to calculate the new condition, and show it on the SYSTEM CONFIG page.

NOTE: The SYSTEM CONFIG page shows the conditions at the time you selected the page. The condition does not update continuously. To get updated data, you must exit SYSTEM CONFIG, and again make the SYSTEM CONFIG selection from the EFB MAINTENANCE page.

- (6) Examine again the COMM MAINTENANCE page.
 - (a) If the COMM MAINTENANCE page shows, and operates correctly, then you corrected the problem.
 - (b) If the COMM MAINT button is unserviceable, or the application does not show, then continue.
- (7) Tell your maintenance operations, or EFB software engineering group about this problem. They must make sure that the EFB EFB WIRELESS SOFTWARE, part number OPTxx-EWCB-zzzz, is serviceable.

F. Repair Confirmation

- (1) If the COMM MAINTENANCE page shows, and operates correctly, with no new faults, then you corrected the problem.

— END OF TASK —

959. NOT INSTALLED Condition Problems - Fault Isolation

A. Description

- (1) This task gives steps to correct the EFB when the COMM MAINTENANCE page shows one or more of these conditions:
 - (a) COMM MAINT shows the condition NOT INSTALLED for the TWLU, or SATCOM.
 - (b) The NOT INSTALLED condition shows continuously, for two minutes and more.
 - (c) This condition shows on the captain's, and first officer's DU at the same time.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Set the DU to show the COMM maintenance page:
 - (a) From the MAIN MENU, push SYSTEM PAGE.
 - (b) Push EFB MAINTENANCE.
 - (c) Push COMM MAINT.
 - (d) Examine the conditions for the TWLU, and SATCOM.
 - 1) If the condition shows as any message other than NOT INSTALLED, then the fault is intermittent:

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- 2) If the condition shows as NOT INSTALLED, then continue.
- (2) Set the DU to show the SYSTEM CONFIG page:
 - (a) From the MAIN MENU, push SYSTEM PAGE.
 - (b) Push EFB MAINTENANCE.
 - (c) Push SYSTEM CONFIG.
 - (d) Find the software identified as PART 121 WINDOWS, part number BFBxx-W121-zzzz, and make sure that it shows white in color.
 - 1) If the loadable software airplane part (LSAP) shows white in color, then the fault is intermittent.
 - 2) If the LSAP shows amber or cyan in color, or is missing, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Install PART 121 WINDOWS, part number BFBxx-W121-zzzz. Do one of these tasks:
Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801
- (2) Examine the COMM maintenance page.
 - (a) From the MAIN MENU, push SYSTEM PAGE.
 - (b) Push EFB MAINTENANCE.
 - (c) Push COMM MAINT.
 - 1) If the condition for TWLU, and SATCOM show a message other than NOT INSTALLED, then you corrected the problem.
 - 2) If the NOT INSTALLED condition remains, then continue.
- (3) Tell your maintenance operations, or EFB software engineering group about this problem. They must make sure that the LSAP identified as PART 121 WINDOWS, part number BFBxx-W121-zzzz, is serviceable.

F. Repair Confirmation

- (1) If COMM MAINTENANCE no longer shows the TWLU or SATCOM condition as NOT INSTALLED, and there are no new faults, then you corrected the problem.

————— END OF TASK —————

966. Load Mode Problems - Fault Isolation

A. Description

- (1) This task gives the steps to correct the problem as follows:
 - (a) After you make the REBOOT TO MAIN selection from the LOAD MODE page, the EFB reboots into LOAD MODE.
- (2) This problem can occur when one or more essential Linux software parts is missing or corrupt.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

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D. Initial Evaluation

- (1) From the LOAD MODE page, push the LSK adjacent to REBOOT TO MAIN.

NOTE: When in load mode, you must push the bezel keys to make your selection. The touchscreen function is not active in load mode.

- (a) After shut-down and reboot is complete, if the DU shows the MAIN MENU, then the problem is intermittent.
- (b) After shut-down and reboot is complete, if the DU again shows the LOAD MODE page, then do the procedure that follows.

E. Fault Isolation Procedure

- (1) From the LOAD MODE page, push the LSK adjacent to EXTERNAL DATALOAD.
- (2) Install the software parts that follow. Do one of these tasks:

Electronic Unit Software Installation Using Portable Data Loader, AMM
TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM
TASK 46-11-03-470-801.

- (a) ADM
- (b) DA CORE
- (c) FLIGHT_MM
- (d) PART 121 LINUX
- (e) PART 25 LINUX.
- (f) Make sure that you do the system test specified by the software installation task, or crossload task.

F. Repair Confirmation

- (1) After reboot of the EFB, if the DU shows the MAIN MENU, then you have corrected the problem.

————— END OF TASK —————

968. External Dataload Button Problems - Fault Isolation

A. Description

- (1) The EXTERNAL DATALOAD button, on the LOAD MODE page, is missing or unserviceable.
- (2) This problem occurs when Disk Linux is not serviceable.

NOTE: Disk Linux refers to the Linux operating system that is operational during flight mode.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Set the captain's or first officer's DU to show the LOAD MODE page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make sure the Windows-OS based application buttons show gray in color.

NOTE: Windows OS-based applications can include Performance, Terminal Charts, Documents, Logbook, Video, or others.

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- (c) Push the SYSTEM PAGE button.
- (d) Push the EFB MAINTENANCE button.
- (e) Push LOAD MODE.
 - 1) Let the DU boot into load mode. This can take approximately three minutes.
- (2) Push the line select key (LSK) adjacent to EXTERNAL DATALOAD.

NOTE: When in load mode, you must push the line select key to make your selection. The touchscreen function is not active in load mode.

 - (a) If the DU shows the EXTERNAL DATALOAD page, then the problem is intermittent.
 - (b) If the button is not serviceable, and the DU does not show the EXTERNAL DATALOAD page, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

- (a) Let the EFB reboot to show the MAIN MENU. This can take approximately eight minutes.
- (2) Set the EFB to boot into load mode, and examine the EXTERNAL DATALOAD page. Do the steps that follow.
 - (a) From the MAIN MENU, push SYSTEM PAGE.
 - (b) Push EFB MAINTENANCE.
 - (c) Push LOAD MODE.

NOTE: The EFB shows the LOAD MODE page approximately three minutes after you push the LOAD MODE button. During the reboot sequence, the DU can show the words NO INPUT, followed by NO VIDEO. Also, the Windows desktop can show intermittently. This is its usual operation, and not a fault.

 - 1) Let the DU boot into load mode, and show the LOAD MODE page.
 - (d) Push the line select key (LSK) adjacent to EXTERNAL DATALOAD.

NOTE: When in load mode, you must push the line select key to make your selection. The touchscreen function is not active in load mode.

 - 1) If the DU shows the EXTERNAL DATALOAD page, then you corrected the problem.
 - 2) If the button is unserviceable, and the DU does not show the EXTERNAL DATALOAD page, then continue.



CAUTION

MAKE SURE THAT YOU KNOW AND FOLLOW YOUR AIRLINE PROCEDURE. THE REIMAGE LINUX FUNCTION ERASES FILES. YOUR AIRLINE PROCEDURE CAN REQUIRE YOU TO COPY ALL DOWNLOADABLE LOG FILES BEFORE YOU REIMAGE LINUX. IF YOU DO NOT KEEP A COPY OF ALL APPLICABLE LINUX PARTITIONS, ALL FILES AND DATA WILL BE ERASED.

- (3) Do this task: (Reimage Linux Partition, AMM TASK 46-11-03-470-805).
 - (a) Make sure you make a back-up copy of necessary data before you erase the Linux OS.

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- (b) Make you install all software parts, and do the check specified in the reimage procedure.
- (4) Again, boot-up the EFB in load mode, and examine the EXTERNAL DATALOAD page. Do the steps that follow.
 - (a) From the MAIN MENU, push SYSTEM PAGE.
 - (b) Push EFB MAINTENANCE.
 - (c) Push LOAD MODE.

NOTE: The EFB shows the LOAD MODE page approximately three minutes after you push the LOAD MODE button. During the reboot sequence, the DU can show the words NO INPUT, followed by NO VIDEO. Also, the Windows desktop can show intermittently. This is its usual operation, and not a fault.

 - 1) Let the DU boot into load mode, and show the LOAD MODE page.
 - (d) Push the line select key (LSK) adjacent to EXTERNAL DATALOAD.

NOTE: When in load mode, you must push the line select key to make your selection. The touchscreen function is not active in load mode.

 - 1) If the DU shows the EXTERNAL DATALOAD page, then you corrected the problem.
 - 2) If the button is unserviceable, and the DU does not show the EXTERNAL DATALOAD page, then continue.
 - (5) Replace the applicable EU. Do these tasks:
 - Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) Make sure you do the system test specified in the installation task.

F. Repair Confirmation

- (1) If the EXTERNAL DATALOAD button shows white in color, and it operates correctly, then you fixed the problem.

————— END OF TASK —————

969. OACORE WIN WIN COMM INVALID Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) OACORE WIN WIN COMM INVALID.
- (2) This fault occurs when the Ethernet connection is unserviceable between Windows OS and the Windows OS in the opposite-side EU.
 - (a) There is Ethernet activity between the two Windows operating systems.
 - (b) The data is unserviceable.

B. Possible Causes

- (1) Electronics unit, N46102, or N46202.
- (2) Wiring.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

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D. Initial Evaluation

- (1) Examine the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) Find the message OACORE WIN WIN COMM INVALID.
 - 2) Make a record of the fault log message, and time-stamp data.

E. Fault Isolation Procedure

- (1) Restart the EFB as follows:
 - (a) Push the MENU bezel key.
 - (b) On the MAIN MENU, make sure that all application buttons show gray in color.
 - (c) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

NOTE: The EFB can take approximately eight minutes to reboot and show the MAIN MENU.

- (d) When the MAIN MENU shows again, then continue.
- (2) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the log shows the same fault message with a new time-stamp, then continue.
 - 2) If the log does not show the same fault with a new time-stamp, then the fault is intermittent.
- (3) Remove and replace the applicable EU. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.

NOTE: If the fault shows on the captain's display unit (DU), then replace EU-L. If the fault shows on the first officer's DU, then replace EU-R.
- (4) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the log shows the same fault message with a new time-stamp, then continue.
- (5) Remove EU-L, and EU-R. Do this task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).
- (6) Do a continuity check of the wiring, (WDM 46-11-21).

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E/E, E1-3 to E4-2

EU-L, N46102		EU-R, N46202	
DN46102AB		DN46202AB	
2T		1T	0
2TR		1TR	0
1T		2T	0
1TR	.....	2TR	

- (7) Install the two EUs. Do this task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).

F. Repair Confirmation

- (1) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the log does not show the same fault with a new time-stamp, then you corrected the fault.

END OF TASK

970. LINUX LINUX COMM INVALID Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) LINUX LINUX COMM INVALID.
- (2) This fault occurs when there is data corruption over the Ethernet connection between the Linux-OS, and the Linux-OS in the opposite-side EU.
 - (a) There is Ethernet activity between the two Linux operating systems.
 - (b) The data is unserviceable.

B. Possible Causes

- (1) Electronics unit, N46102, or N46202.
- (2) Wiring.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).
- (2) WDM 46-11-11.

D. Initial Evaluation

- (1) Examine the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) Make a record of the fault log message, and time-stamp data.

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E. Fault Isolation Procedure

- (1) Restart the EFB as follows:
 - (a) Push the MENU bezel key.
 - (b) On the MAIN MENU, make sure that all application buttons show gray in color.
 - (c) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

NOTE: The EFB can take approximately eight minutes to reboot and show the MAIN MENU.

- (d) When the MAIN MENU shows again, then continue.
- (2) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the log shows the same fault message with a new time-stamp, then continue.
 - 2) If the log does not show the same fault with a new time-stamp, then the fault is intermittent.
- (3) Remove and replace the applicable EU. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
NOTE: If the fault shows on the captain's display unit (DU), then replace EU-L. If the fault shows on the first officer's DU, then replace EU-R.
- (4) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the log shows the same fault message with a new time-stamp, then continue.
- (5) Remove EU-L, and EU-R. Do this task:
Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (6) Do a continuity check of the Ethernet wiring as follows.
(WDM 46-11-11)

E/E, E1-3 to E4-2				
SHELF	EU-L, N46102		EU-R, N46202	
	DN46102AA		DN46202AA	
	13T		15T	0
	13TR		15TR	0
	15T		13T	0
	15TR		13TR	0

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- (a) If you find a problem, repair the wiring.
- (7) Install the two EUs. Do this task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801.

F. Repair Confirmation

- (1) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the log does not show the same fault with a new time-stamp, then you corrected the fault.

————— END OF TASK —————

971. ARINC 429 FAILED Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) ARINC 429 FAILED.
- (2) This fault occurs when the ARINC 429 bus to EU is unserviceable.

B. Possible Causes

- (1) Electronics unit, N46102, or N46202.
- (2) Wiring.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).
- (2) WDM 31-41-21.
- (3) WDM 46-11-11.

D. Initial Evaluation

- (1) Examine the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) Make a record of the fault log message, and time-stamp data.

E. Fault Isolation Procedure

- (1) Shut-down the EFB as follows:
 - (a) Push the MENU bezel key.
 - (b) On the MAIN MENU, make sure that all application buttons show gray in color.
 - (c) Open these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

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DO NOT TOUCH THE CONNECTOR PINS OR OTHER CONDUCTORS ON THE UNIT. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE UNIT.

- (2) Replace the applicable EU. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
NOTE: If the fault shows on the captain's display unit (DU), then replace EU-L. If the fault shows on the first officer's DU, then replace EU-R.
- (3) Examine again the fault log page.
 - (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the FAULT LOG button.
 - 1) If the fault log does not show with a new date and time stamp, you corrected the fault.
 - 2) If the log shows the same fault message with a new time-stamp, then continue.



DO NOT TOUCH THE CONNECTOR PINS OR OTHER CONDUCTORS ON THE UNIT. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE UNIT.

- (4) Remove the applicable EU. Do this task:
Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (5) Open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	12	C31609	AIMS L-1
B	13	C31611	AIMS L-2
B	14	C31617	AIMS L-3
B	15	C31619	AIMS L-4

- (6) Open these circuit breakers and install safety tags:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	12	C31610	AIMS R-1
F	13	C31612	AIMS R-2
F	14	C31618	AIMS R-3
F	15	C31620	AIMS R-4



DO NOT TOUCH THE CONNECTOR PINS OR OTHER CONDUCTORS ON THE UNIT. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE UNIT.

- (7) At the left AIMS cabinet, M31101, disconnect the connector D6618.

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(SSM 31-41-00)

- (8) At the right AIMS cabinet, M31201, disconnect the connector D6717.

(SSM 31-41-00)

- (9) If the fault is on the captain's EFB, do a check for continuity as follows:

(WDM 31-41-21)

E/E BAY			
E1-3 SHELF	EU-L, N46102	AIMS-L, M31101	
	DN46102AB	D6618	
	D4	27	0
	E4	28	

E/E BAY			
E1-3 TO E2-1	EU-L, N46102	AIMS-R, M31201	
	DN46102AB	D6717	
	D4	42	0
	E4	43	0

- (a) If you find a problem, repair the wiring.

- (10) If the fault shows on the first officer's EFB, do a check for continuity as follows:

(WDM 31-41-21)

E/E BAY			
E4-2 to E2-1	EU-R, N46202	AIMS-L, M31101	
	DN46202AB	D6618	
	D4	8	0
	E4	9	0

E/E BAY			
E4-2 TO E2-1	EU-R, N46202	AIMS-R, M31201	
	DN46202AB	D6717	
	D4	8	0
	E4	9	0

- (a) If you find a problem, repair the wiring.



DO NOT TOUCH THE CONNECTOR PINS OR OTHER CONDUCTORS ON THE UNIT. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE UNIT.

- (11) At the left AIMS cabinet, M31101, connect the connector, D6618.
(12) At the right AIMS cabinet, M31201, connect the connector, D6717.
(13) Remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
F	12	C31610	AIMS R-1

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	13	C31612	AIMS R-2
F	14	C31618	AIMS R-3
F	15	C31620	AIMS R-4

- (14) Remove the safety tags and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	12	C31609	AIMS L-1
B	13	C31611	AIMS L-2
B	14	C31617	AIMS L-3
B	15	C31619	AIMS L-4

- (15) Install again the applicable EU, N46102 or N46202. Do this task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801.

F. Repair Confirmation

- (1) If the log does not show the same fault with a new time-stamp, then you corrected the fault.

————— **END OF TASK** —————

972. **FAULT ICON FAILURE** Fault Message - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
(a) FAULT ICON FAILED.
(2) This fault occurs when the EU can not activate the DU fault icon.

B. Possible Causes

- (1) Software.
(2) Display unit, N46103 or N46203.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the fault log page.
(a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
(b) Push the EFB MAINTENANCE button.
(c) Push the FAULT LOG button.
1) Make a record of the fault log message, and time-stamp data.

E. Fault Isolation Procedure

- (1) Restart the EFB as follows:
(a) Push the MENU bezel key.
(b) On the MAIN MENU, make sure that all application buttons show gray in color.

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- (c) Open and close these circuit breakers:

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

NOTE: The EFB can take approximately eight minutes to reboot and show the MAIN MENU.

- (d) When the MAIN MENU shows again, then continue.
- (2) Examine again the fault log page.
- (a) Push the SYSTEM PAGE button, or adjacent line select key (LSK).
- (b) Push the EFB MAINTENANCE button.
- (c) Push the FAULT LOG button.
- 1) If the log shows the same fault message with a new time-stamp, then continue.
- 2) If the log does not show the same fault with a new time-stamp, then the fault is intermittent.
- (3) Replace the applicable DU. Do these tasks:
- Display Unit Removal, AMM TASK 46-11-02-000-801, and
- Display Unit Installation, AMM TASK 46-11-02-400-801.
- (a) Make sure you set the tail ID into DU memory.

F. Repair Confirmation

- (1) If the log does not show the same fault with a new time-stamp, then you corrected the fault.

————— **END OF TASK** —————

973. Configuration Comparison Problems - Fault Isolation

A. Description

- (1) This task gives the steps to correct the problems that follow with the CONFIG COMPARE page:
- (a) The DU shows the words IN PROGRESS for more than 30 seconds.
- (b) The DU shows the words SOFTWARE MATCH UNABLE.
- (c) The DU shows the words THESE PARTS FOUND ONLY ON ONE SIDE.

B. Possible Causes

- (1) Software
- (2) EU, N46102, or N46202.

C. Circuit Breakers

- (1) Fault Isolation

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

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D. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).
- (2) Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806.

E. Initial Evaluation

- (1) If the result of the CONFIG COMPARE check is one of the conditions that follows, then do the applicable procedure that follows:
 - (a) The DU shows IN PROGRESS for more than 30 seconds.
 - (b) The DU shows SOFTWARE MATCH UNABLE.
 - (c) The DU shows THESE PARTS FOUND ONLY ON ONE SIDE

F. Fault Isolation Procedure - Software Match Unable

- (1) Make sure that the side-opposite EFB is serviceable, and shows the MAIN MENU.
Electronic Flight Bag - Operational Test, AMM TASK 46-11-00-710-801.
 - (a) Make sure that the side-opposite EFB is not booted in load mode.
 - (b) If the problem shows again, then continue.
- (2) Do the CONFIG COMPARE check using the side-opposite EFB.
Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806.
 - (a) If the problem shows again, then continue.
- (3) Exchange EU-L with EU-R. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the problem changes to the opposite side, replace the applicable EU.
 - (b) If the problem remains on the same side, then continue.
- (4) Do a check of the Ethernet wiring between EU-L and EU-R.

E/E BAY

	EU-L, N46102	EU-R, N46202	
E1-3 to E4-2	DN46102AA	DN46202AA	
	13T	15T	0
	13TR	15TR	0
	15T	13T	0
	15TR	13TR	0

- (a) If you find a problem, then repair the wiring.

G. Fault Isolation Procedure - In Progress Shows For More Than 30 Seconds

- (1) If the DU shows SOFTWARE MATCH UNABLE, or IN PROGRESS, then do the step that follows.
 - (a) Open and close these circuit breakers:

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
E	8	C46406	CAPTAIN ELECTRONIC FLIGHT BAG
E	21	C46407	F/O ELECTRONIC FLIGHT BAG

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- (b) Let the EFB restart and show the MAIN MENU. This can take approximately 8 minutes.
- (2) Again, select CONFIG COMPARE:
 - (a) From the MAIN MENU, push the SYSTEM page button.
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the CONFIG COMPARE button.
 - 1) If the result is NO MISMATCH, then the problem is intermittent.
 - 2) If the condition shows again, then continue.
- (3) Do a check of the EU software. This is the task:
Electronic Unit - Software Check, AMM TASK 46-11-03-860-803
 - (a) Do the same-side, and opposite side EFBs.
 - (b) If the condition shows again, then continue.
- (4) Interchange the left and right EUs. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (a) If the problem remains on the same side, check the Ethernet wiring between the two EU racks.
 - (b) If the problem changes to the opposite side, replace the EU.

H. Fault Isolation Procedure - These Parts Found Only One Side

- (1) Push the PRINT ALL button on the DU.
 - (a) Get the record from the printer.
- (2) Install the missing software into the applicable EU. Do one of these tasks:
Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (3) Again, select CONFIG COMPARE:
 - (a) From the MAIN MENU, push the SYSTEM page button.
 - (b) Push the EFB MAINTENANCE button.
 - (c) Push the CONFIG COMPARE button.
 - 1) If the result is NO MISMATCH, then you have solved the problem.

I. Repair Confirmation

- (1) If the result of CONFIG COMPARE shows NO MISMATCH, then you have solved the problem.

————— END OF TASK —————

974. SYSTEM CONFIG Page Problems - Fault Isolation

A. Description

- (1) This task gives the steps to correct these problems:
 - (a) SYSTEM CONFIG shows software part with cyan or amber colored text.

B. Possible Causes

- (1) Software.

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C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).
- (2) Electronic Unit - Software Check, AMM TASK 46-11-03-860-803.

D. Initial Evaluation

- (1) From the EFB MAIN MENU, push the SYSTEM CONFIG button.
- (2) Examine the software parts record:
 - (a) If all parts show white in color, and no parts show amber or cyan in color, then the fault is intermittent.
 - (b) If one or more parts shows amber or cyan in color:
 - 1) Make a record of each software part. Push the PRINT ALL button.
 - 2) Do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Install the applicable software from your record. Do one of these tasks:
Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (2) Again do a check of the EU software:
Electronic Unit - Software Check, AMM TASK 46-11-03-860-803.

F. Repair Confirmation

- (1) If the SYSTEM CONFIG page shows all software parts as white in color, then you have corrected the problem.

————— END OF TASK —————

975. Data File Download Problems - Fault Isolation

A. Description

- (1) This gives the steps to correct the problem that follows:
 - (a) Unable to complete a download of data files from the EU to the portable data loader.
- (2) This problem can occur when one or more data files shows available for download, but the file is corrupt.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).
- (2) Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803.

D. Initial Evaluation

- (1) Do this task: Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803.
 - (a) Make sure you use the SELECT ALL button
 - (b) If portable data loader (PDL) shows the result FAILED, or is unable to copy files successfully, then do the fault isolation procedure that follows.

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- (c) If the PDL is successful at making a copy of all of the files, then there was an intermittent fault.

E. Fault Isolation Procedure

- (1) Use the portable data loader (PDL), begin a new download session, and do these steps:
(Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803).
NOTE: You will download files in small groups, until you can identify the damaged file, or files.
- (a) On the PDL, do not use the SELECT ALL button.
- (b) Download 3 files at a time.
- 1) If the download is successful, then select another three files, and download those.
- 2) If the download fails:
- a) Make a record of the names of the three files.
- b) Begin another download session, but only download one file at a time.
- c) Continue until you can identify the single file that prevents the download.
- d) Furnish the logs, and a record of the files that failed to download to your EFB administrator.
- (c) After you complete all downloads, then continue.
- (2) Set the EFB to show the DISK UTILITIES page:
- (a) From the EXTERNAL DATALOAD page, push the Back (<=) bezel key.
- (b) On the LOAD MODE page, push the LSK adjacent to DISK UTILITIES.
- (3) Push the LSK adjacent to DELETE TEMP.
- NOTE: The delete temp function removes all log files, and OPT performance calculation trace files.
- (a) When the confirmation box shows, click on CONTINUE.
- (4) Set the EFB to show the EXTERNAL DATALOAD page.
- (a) From the disk utilities page, push the BACK (<=) bezel key.
- (b) From the load mode page, push the LSK adjacent to EXTERNAL DATALOAD.
- (5) Use the PDL to begin a new download session, and do these steps:
(Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803).
- (a) On the PDL, use the SELECT ALL function.
- (b) If the download is successful, then you corrected the problem.
- (c) If the download is not successful, then continue.
- (6) Re-image the Linux partition. Do this task:
Reimage Linux Partition, AMM TASK 46-11-03-470-805.
- (7) Re-image the Windows partition. Do this task:
Reimage Windows Partition, AMM TASK 46-11-03-470-804.
- (8) Use the PDL to begin a new download session, and do these steps:
(Electronic Unit - Data Download to Portable Data Loader, AMM TASK 46-11-03-470-803).
- (a) On the PDL, use the SELECT ALL function.
- (b) If the download is successful, then you corrected the problem.
- (c) If the download is not successful, then continue.



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- (9) Replace the applicable EU. Do these tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801.
Electronic Unit Installation, AMM TASK 46-11-03-400-801.

F. Repair Confirmation

- (1) If the portable dataloader can download data files successfully, then you corrected the problem.

————— END OF TASK —————

977. PRINT TEST TEXT Problems - Fault Isolation

A. Description

- (1) This procedure gives the instructions to correct the problem that follows:
 - (a) The TEXT PRINT MANAGER function is unserviceable.
- (2) This task is applicable only for ARINC 429 text printing, from EU-L or EU-R, to the flight compartment printer, M31004.

B. Possible Causes

- (1) Software
- (2) EU-L, N46102
- (3) EU-R, N46202
- (4) Wiring.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Make a test print from the EFB MAINTENANCE page. Do these steps:
 - (a) On the EFB DU, push the MENU bezel key.
 - (b) Push the SYSTEM PAGE button.
 - (c) Push the EFB MAINTENANCE button.
 - (d) Push the PRINT TEST TEXT button.
 - (e) Below the words ENTER TEST TEXT, find and push the PRINT button.
 - 1) If the test print is successful, then the problem is intermittent.
 - 2) If the test print is unsuccessful, then do the procedure that follows.

E. Fault Isolation Procedure

- (1) Make sure that the printer is serviceable. Do this task:
Flight Compartment Printing - Operational Test, AMM TASK 31-33-00-710-801.
 - (a) If the printer is unserviceable, then correct the problem.
 - (b) If the printer is serviceable, and the PRINT TEST TEXT function is unserviceable, then continue.
- (2) Do a check of the PR1 condition on the GEN INPUT MONITORING page. Do these steps:
 - (a) From the EFB MAINTENANCE PAGE, push the INPUT MONITORING button.
 - (b) Push the GEN INPUT MONITOR button.

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- (c) Examine the condition for PR1.
- 1) If PR1 shows ABSENT, then correct the problem. Refer to this task:
PR1 Communication Problems - Fault Isolation, 46-11 TASK 826.
 - 2) If PR1 shows present, and PRINT TEST TEXT continues to be unserviceable, then continue.



DO NOT TOUCH THE UNIT BEFORE YOU DO THE PROCEDURE FOR DEVICES THAT ARE SENSITIVE TO ELECTROSTATIC DISCHARGE. ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE UNIT.

- (3) Remove the applicable EU, and install a serviceable EU. Do these tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801, and
Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (a) If the PRINT TEST TEXT function is successful, then you corrected the problem.
 - (b) If the PRINT TEST TEXT function is unserviceable, then continue.
- (4) Remove EU-L, and EU-R to do a wiring check.
Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (5) Do a wiring check from EU-L to the flight deck printer as follows:

E/E Shelf to P8 Aisle Stand Panel-Aft

	EU-L, N46102	FLIGHT DECK	
	DN46102AB	PRINTER, M31004	
E1-3		DM31004A	
	F4	AA	0
	G4	BB	0

- (a) If you find a problem, repair the wiring.
- (6) Do a wiring check from EU-R to the flight deck printer as follows:

E/E Shelf to P8 Aisle Stand Panel-Aft

	EU-R, N46202	FLIGHT DECK	
	DN46202AB	PRINTER, M31004	
E4-2		DM31004A	
	F4	DD	0
	G4	MM	0

- (a) If you find a problem, repair the wiring.
- (7) Install EU-L, and EU-R. Do this task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801.

F. Repair Confirmation

- (1) If the PRINT TEST TEXT function prints successfully, from the captain's and first officer's EFB, then you corrected the problem.

————— **END OF TASK** —————

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984. [Short Part Number] INVALID - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) [Short part number] INVALID.
- (2) The short part number (SPN) is the first 3 characters, and middle 4 characters of the LSAP. For example, The ADC supplier configuration part is identified as BFBxx-ADCS-yyyy. The SPN will be BFBADCS.
- (3) The first three characters of the SPN can refer to the airline, or LSAP supplier code.
- (4) This fault shows when an LSAP is unserviceable.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for the LSAP specified by the fault message.
 - 1) If the part agrees with your airline requirement, and shows white in color, then the problem is intermittent.
 - 2) If the part is unserviceable, or shows amber in color, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.
- (2) Examine the fault log page. Do the steps that follow.
 - (a) Make your selection: SYSTEM PAGE.
 - (b) Make your selection: EFB MAINTENANCE.
 - (c) Make your selection: FAULT LOG.
 - (d) Examine the fault log page for the message: [Short Part Number] INVALID.
 - 1) If the fault does not show, or does not have a new time stamp, then you corrected the problem.
 - 2) If the fault shows, with a new time stamp, then continue.

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- (3) Install the missing LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) If the EFB Fault Log does not show the message ([Short Part Number] INVALID), with a new time stamp, then you corrected the problem.

————— END OF TASK —————

985. [Software Nomenclature] MISSING - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) [software nomenclature] MISSING.
- (2) [Software nomenclature] refers to LSAP name specified by the airline or operator.
- (3) This fault shows when an LSAP is missing.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for the LSAP specified by the fault message.
 - 1) Make sure the part is present, shows white in color, and agrees with your airline requirement.
 - 2) If the part is unserviceable, or shows amber in color, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.
- (2) Examine the fault log page. Do the steps that follow.
 - (a) Make your selection: SYSTEM PAGE.
 - (b) Make your selection: EFB MAINTENANCE.
 - (c) Make your selection: FAULT LOG.

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- (d) Examine the fault log page for the message: [part name] MISSING.
 - 1) If the fault does not show, or does not have a new time stamp, then you corrected the problem.
 - 2) If the fault shows, with a new time stamp, then continue.
- (3) Install the missing LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) If the EFB Fault Log no longer shows the message ([part name] MISSING), with a new time stamp, then you corrected the problem.

————— END OF TASK —————

986. [Software Nomenclature] INVALID - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) [Software nomenclature] INVALID.
- (2) [Software nomenclature] refers to LSAP name specified by the airline or operator.
- (3) This fault shows when an LSAP is unserviceable.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for the LSAP specified by the fault message.
 - 1) If the specified part is present, shows white in color, and agrees with your airline requirement, then the fault is intermittent.
 - 2) If the part is unserviceable, or shows amber in color, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.

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- (2) Examine the fault log page. Do the steps that follow.
 - (a) Make your selection: SYSTEM PAGE.
 - (b) Make your selection: EFB MAINTENANCE.
 - (c) Make your selection: FAULT LOG.
 - (d) Examine the fault log page for the message [software nomenclature] INVALID.
 - 1) If the fault shows, but the time stamp is not new, then the fault is intermittent.
 - 2) If the fault shows, with a new time stamp, then continue.
- (3) Install a serviceable LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) If the EFB Fault Log no longer shows the message [software nomenclature] INVALID, with a new time stamp, then you corrected the problem.

————— **END OF TASK** —————

987. [Short Part Number] FAILURE CRC - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) [Short part number] FAILURE CRC.
- (2) The short part number (SPN) is the first 3 characters, and middle 4 characters of the LSAP. For example, The ADC supplier configuration long part number (LPN) is BFBxx-ADCS-yyyy. The SPN will be BFBADCS.
- (3) This fault shows when an LSAP is unserviceable. Specifically, the LSAP has failed an internal cyclic redundancy check (CRC) performed by the electronic unit (EU).

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for the LSAP specified by the fault message.
 - 1) If the specified part shows white in color, and agrees with your airline requirement, then the fault is intermittent.
 - 2) If the part is unserviceable, or shows amber in color, then do the fault isolation procedure that follows.

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E. Fault Isolation Procedure

- (1) Using the short part number from the fault message, determine which application is unserviceable.
- (2) Install all LSAP for the application. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) Examine the SYSTEM CONFIG page.
 - (a) If the LSAP shows white in color, then continue.
- (2) Examine the FAULT LOG.
 - (a) If the fault [short part number] FAILURE CRC does not show, or shows but the time stamp is not new, then you corrected the fault.

————— END OF TASK —————

991. [Long Part Number] INVALID

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) [Long part number] INVALID.
- (2) [LPN] refers to long part number. For example, the LPN for the LSAP: ADC Supplier Config will show as BFBxx-ADCP-yyyy.

NOTE: The first 3 letters can refer to the airline's three-letter code, or to the LSAP supplier.
- (3) This fault shows when the specified LSAP is unserviceable. The examples that follow can cause this fault.
 - (a) The LSAP failed the cyclic redundancy check (CRC).
 - (b) The LSAP failed the authority key check.
 - (c) A file required by the LSAP is unserviceable.
 - (d) The security customer configuration data is unserviceable.

B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for the LSAP specified by the fault message.
 - 1) If the specified part shows white in color, then do the fault isolation procedure that follows.

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E. Fault Isolation Procedure

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.
- (2) Examine the fault log page. Do the steps that follow.
 - (a) Make your selection: SYSTEM PAGE.
 - (b) Make your selection: EFB MAINTENANCE.
 - (c) Make your selection: FAULT LOG.
 - (d) Examine the fault log page for the message: [long part number] INVALID.
 - 1) If the fault does not show, or does not have a new time stamp, then the problem is intermittent.
 - 2) If the fault shows, with a new time stamp, then continue.
- (3) Examine again the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the BACK (<=) button.
 - 1) Make sure the EFB maintenance page shows.
 - (b) Make your selection: SYSTEM CONFIG.
 - 1) Make sure the specified LSAP shows white in color.
 - (c) If the part shows white, the part is unserviceable.
 - 1) Notify your EFB administrator about this fault.
 - 2) The administrator must correct the problem, and furnish a serviceable part.
- (4) Install the specified LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) If the EFB Fault Log does not show the message, [long part number] INVALID, with a new time stamp, then you corrected the problem.

————— END OF TASK —————

992. [Long Part Number] MISSING - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message:
 - (a) [long part number] MISSING.
- (2) [LPN] refers to long part number. For example, the LPN for the LSAP: ADC Supplier Config will show as BFBxx-ADCP-yyyy.

NOTE: The first 3 letters can refer to the airline's three-letter code, or to the LSAP supplier.
- (3) This fault shows when an LSAP is missing.

B. Possible Causes

- (1) Software.

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C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for the LSAP specified by the fault message.
 - 1) Make sure the part shows white in color, and agrees with your airline's requirement, then the problem is intermittent.
 - 2) If the part is missing, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.
- (2) Examine the fault log page. Do the steps that follow.
 - (a) Make your selection: SYSTEM PAGE.
 - (b) Make your selection: EFB MAINTENANCE.
 - (c) Make your selection: FAULT LOG.
 - (d) Examine the fault log page for the message: [long part number] MISSING.
 - 1) If the fault does not show, or does not have a new time stamp, then you corrected the problem.
 - 2) If the fault shows, with a new time stamp, then continue.
- (3) Install the missing LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).

F. Repair Confirmation

- (1) If the EFB fault log no longer shows the message (long part number MISSING), with a new time stamp, then you corrected the problem.

————— END OF TASK —————

993. WIRELESS CERT STORE FAILURE - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message that follows:
 - (a) WIRELESS CERT STORE FAILURE.
- (2) This fault occurs when the sequence to make a wireless certificate is unserviceable.

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B. Possible Causes

- (1) Software.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.
- (2) Examine the SYSTEM CONFIG page. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: EFB MAINTENANCE.
 - (d) Make your selection: SYSTEM CONFIG.
 - (e) Examine the system configuration page for two LSAP, specifically SEC CUST CFG (mmmEWSC) and WIRELESS CERT (mmmWCRT).

NOTE: The example gives the part nomenclature, and short part number (SPN). The first three letters of the SPN, mmm in the example, can refer to the airline code, or the LSAP supplier.

- 1) If the one or more specified parts is missing, or show amber in color, then do the steps for Fault Isolation Procedure - Parts Show Amber in Color.
- 2) If the two parts are present, and show white in color, then do the steps for Fault Isolation Procedure - Parts Show White in Color.

E. Fault Isolation Procedure - Parts Show Amber in Color

- (1) Install the specified LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).
 - (a) Make sure you do the software check specified by the installation task.

F. Fault Isolation Procedure - Parts Show White in Color

- (1) Report this fault to your EFB administrator. The specified LSAP is unserviceable and must be made again.
 - (a) When you receive the serviceable LSAP, specifically SEC CUST CFG (mmmEWSC) or WIRELESS CERT (mmmWCRT), or the two together, then continue.
- (2) Install the specified LSAP. Do this task: (Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802 or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801).
 - (a) Make sure you do the software check specified by the installation task.

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G. Repair Confirmation

- (1) Examine the SYSTEM CONFIG page.
 - (a) If the specified LSAP shows white in color, then continue.
- (2) Examine the EFB FAULT LOG.
 - (a) If the fault log message, WIRELESS CERT STORE FAILURE, does not show with a new time-stamp, then you corrected the fault.

————— END OF TASK —————

995. VPN HALTED ERROR LIMIT - Fault Isolation

A. Description

- (1) This task gives the steps to correct the EFB fault log message that follows:
 - (a) VPN HALTED ERROR LIMIT.
- (2) VPN refers to virtual private network.
- (3) The conditions that follow can cause this fault log message to show.
 - (a) The communication link to a ground access point is unserviceable.
 - (b) The network security configuration is incorrect.
- (4) This fault log message is not caused by an EFB fault, or onboard fault. The fault can refer to a problem with the service provider or network.

B. Possible Causes

- (1) Communication link.
- (2) Network security configuration.

C. Related Data

- (1) 46-11 Crew Information System - Task Support, PAGEBLOCK 46-11-00/301, (Figure 301 or Figure 302 or Figure 303).

D. Initial Evaluation

- (1) Restart the Windows OS. Do the steps that follow.
 - (a) Push the MENU bezel key.
 - (b) Make your selection: SYSTEM PAGE.
 - (c) Make your selection: RESTART.
 - 1) Let the system reboot, and show the main menu. This can take approximately 3 minutes.
- (2) Examine the fault log page. Do the steps that follow.
 - (a) Make your selection: SYSTEM PAGE.
 - (b) Make your selection: EFB MAINTENANCE.
 - (c) Make your selection: FAULT LOG.
 - (d) Examine the fault log page for the message: VPN HALTED ERROR LIMIT.
 - 1) If the fault shows, but the time stamp is not new, then the fault is intermittent.
 - 2) If the fault shows, with a new time stamp, then do the fault isolation procedure that follows.

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E. Fault Isolation Procedure

- (1) Refer this fault message to your EFB administrator.
 - (a) This condition can require communication with the link service provider.

————— END OF TASK —————

A04. 46-911 Fault Code (AIRLAN FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-911 (AIRLAN FAIL message) shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > WWU.
- (2) This fault shows when one, or more, of these conditions is present:
 - (a) The WWU configuration is not set correctly.
 - (b) Ethernet communication between the NFS and WWU is unserviceable.
 - (c) The correct WWU software is not found.
 - (d) Internal WWU hardware failure.

B. Possible Causes

- (1) Software
- (2) WWU, M44360

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-911 (AIRLAN FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-911 (AIRLAN FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a check to make sure the correct software is installed in the WWU. Do this task: (Wireless WAN Unit Software Check, AMM TASK 46-11-07-860-803).
 - (a) If necessary, install the WWU software. Do this task: (Wireless WAN Unit Software Installation, AMM TASK 46-11-07-470-801).
 - (b) If Fault Code 46-911 does not show, then you corrected the fault.
 - (c) If Fault Code 46-911 shows again, then continue.
- (2) Do this task: (Wireless WAN Unit - Operational Test, AMM TASK 46-11-07-710-801).
 - (a) Make sure the RF discrete, and cellular profiles are set correctly.
 - (b) If Fault Code 46-911 does not show, then you corrected the fault.
 - (c) If Fault Code 46-911 shows again, then continue.
- (3) Remove the WWU, M44360, and install a serviceable unit. These are the tasks: (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801, and Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
 - (a) If Fault Code 46-911 does not show, then you corrected the fault.

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E. Repair Confirmation

- (1) If no NFS messages show (AMM TASK 46-13-00-720-801), and the WWU wi-fi and cellular communications are serviceable (AMM TASK 46-11-07-710-801), then the WWU is serviceable.

————— END OF TASK —————

A05. 46-912 Fault Code (AIRLAN_CELLULAR_OPC_FAULT) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-912 (AIRLAN_CELLULAR_OPC_FAULT) shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > WWU.
 - (b) OPC refers to operational program configuration, which is a data file, or software part.
- (2) When this fault shows, these two conditions are present:
 - (a) The cellular discrete is enabled.
 - (b) Communication between the WWU and NFS is unserviceable.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-912 (AIRLAN_CELLULAR_OPC_FAULT) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-912 (AIRLAN_CELLULAR_OPC_FAULT) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a check to make sure the correct software is installed in the WWU. Do this task: (Wireless WAN Unit Software Check, AMM TASK 46-11-07-860-803).
 - (a) If necessary, install the software part NFS OPC. Do this task: (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) If Fault Code 46-912 does not show, then you corrected the fault.
 - (c) If Fault Code 46-912 shows again, then continue.
- (2) Do this task: (Wireless WAN Unit - Operational Test, AMM TASK 46-11-07-710-801).
 - (a) Make sure the RF discrete, and cellular profiles are set correctly.
 - (b) If Fault Code 46-912 does not show, then you corrected the fault.

E. Repair Confirmation

- (1) If no NFS messages show (AMM TASK 46-13-00-720-801), and the WWU wi-fi and cellular communications are serviceable (AMM TASK 46-11-07-710-801), then the WWU is serviceable.

————— END OF TASK —————

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A06. 46-913 Fault Code (AIRLAN_CELLULAR_AMI_FAULT) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-913 (AIRLAN_CELLULAR_AMI_FAULT) shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > WWU.
 - (b) AMI refers to airline modifiable instruction, which is a data file, or software part.
- (2) This fault shows when one, or more, of these conditions is present:
 - (a) The cellular discrete is enabled.
 - (b) Communication between the WWU and NFS is unserviceable.

B. Possible Causes

- (1) Software
- (2) WWU, M44630.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-913 (AIRLAN_CELLULAR_AMI_FAULT) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-913 (AIRLAN_CELLULAR_AMI_FAULT) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) The specified task gives the steps to install a serviceable AMI software part.
 - (b) If Fault Code 46-913 does not show, then you corrected the fault.
 - (c) If Fault Code 46-913 shows again, then continue.
- (2) Do this task: (Wireless WAN Unit - Operational Test, AMM TASK 46-11-07-710-801).
 - (a) Make sure the RF discrete, and cellular profiles are set correctly.
 - (b) If Fault Code 46-913 does not show, then you corrected the fault.
 - (c) If Fault Code 46-913 shows again, then continue.
- (3) Do a check to make sure the correct software is installed in the WWU. Do this task: (Wireless WAN Unit Software Check, AMM TASK 46-11-07-860-803).
 - (a) If Fault Code 46-913 does not show, then you corrected the fault.
 - (b) If Fault Code 46-913 shows again, then continue.
- (4) Remove the WWU, M44360, and install a serviceable unit. These are the tasks: (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801, and Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
 - (a) If Fault Code 46-913 does not show, then you corrected the fault.

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E. Repair Confirmation

- (1) When no NFS messages show (AMM TASK 46-13-00-720-801), and the WWU wi-fi and cellular communications are serviceable (AMM TASK 46-11-07-710-801), then the NFS and WWU is serviceable.

————— END OF TASK —————

A07. 46-914 Fault Code (AIRLAN_RF_DISCRETE_FAIL) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-914 shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > WWU.
- (2) This fault shows when one, or more, of these conditions is present:
 - (a) The RF ENABLE discrete, as set by the NFS, and the WWU condition, do not agree.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) WWU, M44360.

C. Related Data

- (1) WDM 46-11-52.

D. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-914 (AIRLAN_RF_DISCRETE_FAIL) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-914 (AIRLAN_RF_DISCRETE_FAIL) shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do a check to make sure the correct software is installed in the WWU. Do this task: (Wireless WAN Unit Software Check, AMM TASK 46-11-07-860-803).
 - (a) If necessary, install the WWU software. Do this task: (Wireless WAN Unit Software Installation, AMM TASK 46-11-07-470-801).
 - (b) If Fault Code 46-914 does not show, then you corrected the fault.
 - (c) If Fault Code 46-914 shows again, then continue.
- (2) Do this task: (Wireless WAN Unit - Operational Test, AMM TASK 46-11-07-710-801).
 - (a) Make sure the RF discrete, and cellular profiles are set correctly.
 - (b) If Fault Code 46-914 does not show, then you corrected the fault.
 - (c) If Fault Code 46-914 shows again, then continue.
- (3) Remove the NFS for access to the wiring. Do this task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (4) Disconnect the WWU connector (J1) to get access to the wiring (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801).

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E/E BAY to STA 740 GALLEY CEILING

NFS	E4-2, M46009 NFS	M44360, WWU	
	DA4430OP	DM46009AA	
	24	K9	0

EE BAY

E4-2, M46009	DISCRETE WIRE	GROUND	
	DM46009AA	GROUND	INFINITE
	K9	GROUND	INFINITE

- (6) Install the NFS. Do this task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (7) Connect the WWU connector (J1), (Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
- (8) Do this task: (Wireless WAN Unit - Operational Test, AMM TASK 46-11-07-710-801).
 - (a) Make sure the WWU is serviceable.
 - (b) If Fault Code 46-914 does not show, then you corrected the fault.
 - 1) Put the airplane back to its usual condition, (Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
 - (c) If Fault Code 46-914 shows again, then continue.
- (9) Remove the WWU, M44360, and install a serviceable unit. These are the tasks: (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801, and Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
 - (a) If Fault Code 46-914 does not show, then you corrected the fault.

F. Repair Confirmation

- (1) If no NFS messages show (AMM TASK 46-13-00-720-801), and the WWU wi-fi and cellular communications are serviceable (AMM TASK 46-11-07-710-801), then the WWU is serviceable.

————— END OF TASK —————

A08. 46-915 Fault Code (AIRLAN_WOW_DISCRETE_FAIL) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-915 (AIRLAN_WOW_DISCRETE_FAIL) shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > WWU.
- (2) This fault shows when the condition that follows is present:
 - (a) The weight-on-wheels (WOW) discrete, as received by the NFS, and the WWU enable/disable condition, do not agree.
- (3) The WOW discrete must be grounded to enable WWU RF communications.

B. Possible Causes

- (1) Wiring
- (2) WWU, M44360

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C. Related Data

- (1) WDM 46-11-52.

D. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-915 (AIRLAN_WOW_DISCRETE_FAIL) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-915 (AIRLAN_WOW_DISCRETE_FAIL) shows, then do the Fault Isolation Procedure that follows.

E. Fault Isolation Procedure

- (1) Disconnect the WWU connector (J1) to get access to the wiring. Refer to this task for access: (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801).
- (2) Remove the NFS. Do this task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).

E/E BAY TO STA 740 GALLEY CEILING

	M46009, NFS	M44360, WWU	
E4-2	DM46009AB	DM44360B	0
	K9	24	0

EE BAY

	DISCRETE WIRE	GROUND	
E4-2, M46009	DM46009AA	GROUND	INFINITE
	K9	GROUND	INFINITE

- (a) If you find no conductivity, or a short to ground, then correct the wiring.
- (4) Do this task: (Wireless WAN Unit - Operational Test, AMM TASK 46-11-07-710-801).
 - (a) Make sure the RF discrete, and cellular profiles are set correctly.
 - (b) If Fault Code 46-915 does not show, then you corrected the fault.
 - (c) If Fault Code 46-915 shows again, then continue.
- (5) Do a check to make sure the correct software is installed in the WWU. Do this task: (Wireless WAN Unit Software Check, AMM TASK 46-11-07-860-803).
 - (a) If necessary, install the WWU software. Do this task: (Wireless WAN Unit Software Installation, AMM TASK 46-11-07-470-801).
 - (b) If Fault Code 46-915 does not show, then you corrected the fault.
 - (c) If Fault Code 46-915 shows again, then continue.
- (6) Remove the WWU, M44360, and install a serviceable unit. These are the tasks: (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801, and Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
 - (a) If Fault Code 46-915 does not show, then you corrected the fault.

F. Repair Confirmation

- (1) If no NFS messages show (AMM TASK 46-13-00-720-801), and the WWU wi-fi and cellular communications are serviceable (AMM TASK 46-11-07-710-801), then the WWU is serviceable.

— END OF TASK —

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LSAP NAME ¹	P/N ¹	NOTES
ADM	ACZxx-811F-yyyy	²
DACORE	ACZxx-7YWU-yyyy	²
FLIGHT_MM	ACZxx-811G-yyyy	²
MAINTENANCE MODE	ACZxx-8049-yyyy	³
PART 121 LINUX	BFBxx-L121-yyyy	
PART 25 LINUX	BFBxx-L025-yyyy	
TPA APPLICATION	JEPxx-TPAP-yyyy	
TPA CUSTOMER CONFIG	JEPxx-TPCC-yyyy	
TPA DATABASE	JEPxx-TPAD-yyyy	
TPA SUPPLIER CONFIG	JEPxx-TPCS-yyyy	

EFB LINUX SYSTEM - MANDATORY SOFTWARE PARTS

LSAP NAME ¹	P/N ¹	NOTES
ADC APPLICATION	BFBxx-ADCP-yyyy	
ADC CUSTOMER CONFIG	BFBxx-ADCC-yyyy	
ADC SUPPLIER CONFIG	BFBxx-ADCS-yyyy	
APP_SYS_SUP	ACZxx-805A-yyyy	
DDM APPLICATION	JEPxx-DMEP-yyyy	
EFB SERVICES	BFBxx-ESRV-yyyy	
EFB WIRELESS SW	OPTxx-EWCB-yyyy	
PART 121 WINDOWS	BFBxx-W121-yyyy	
PART 25 WINDOWS	BFBxx-W025-yyyy	
WINDOWS OS	ACZxx-8241-yyyy	
WPM APPLICATION	BFBxx-WPMA-yyyy	
WPM CFG AND DRIVERS	BFBxx-WPMC-yyyy	

EFB WINDOWS SYSTEM - MANDATORY SOFTWARE PARTS

¹ SPECIFIC PARTS DATA SHOWN IS FOR EXAMPLE ONLY. REFER TO OPERATOR'S ENGINEERING FOR THE CORRECT PARTS DATA.

² TO REMOVE THIS LSAP, YOU MUST REIMAGE THE PARTITION.

³ THIS LSAP IS INSTALLED INTO FLASH MEMORY USING LOAD MODE. THE LSAP CAN BE UPDATED, BUT NOT ERASED OR REMOVED.

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**EFB Software
Figure 301/46-11-00-990-824**

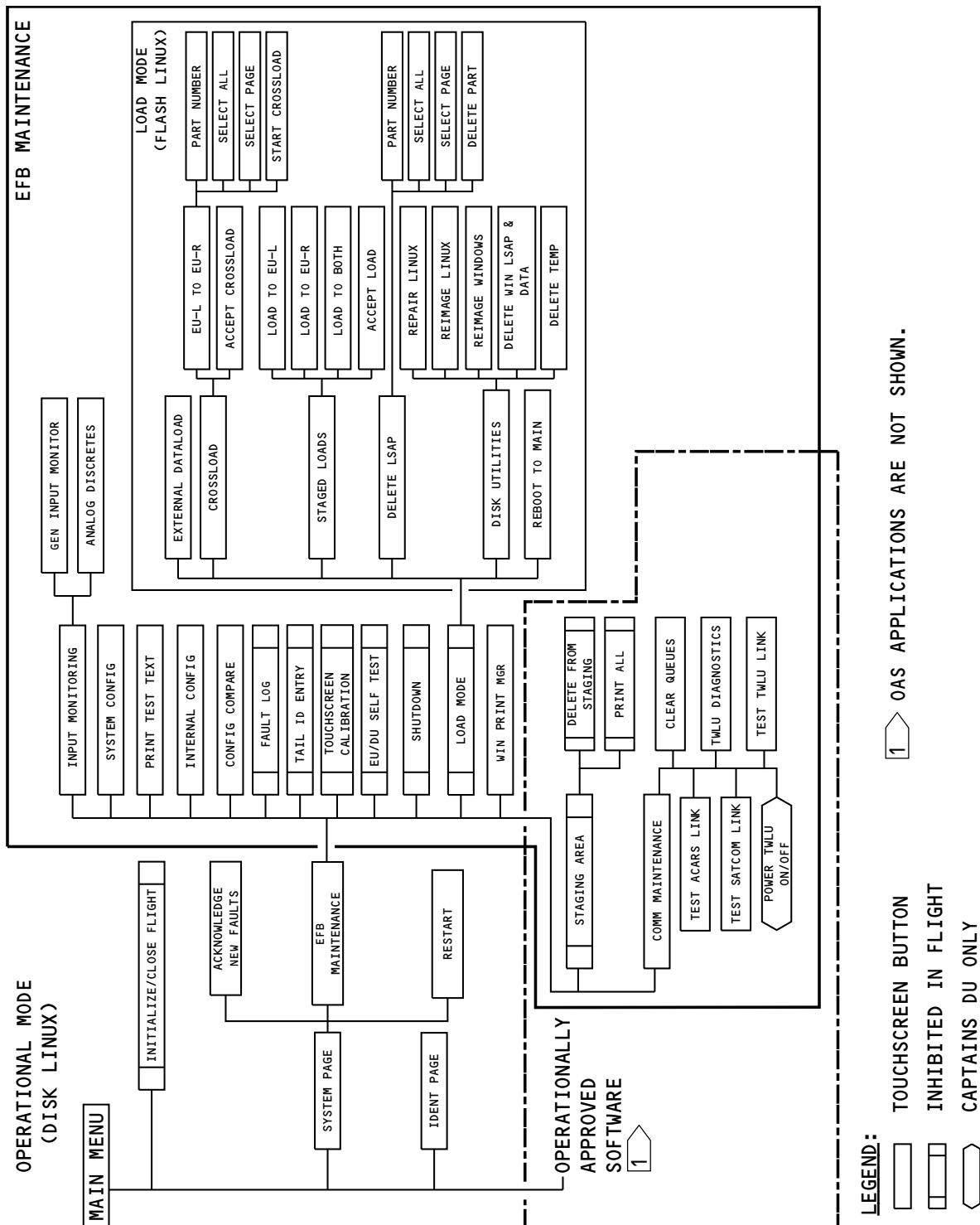
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EFB - Menu Flow Diagram
Figure 302/46-11-00-990-825

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LSAP NAME ¹	P/N ¹	NOTES
ADM	ACZxx-811F-yyyy	²
DACORE	ACZxx-7YWU-yyyy	²
FLIGHT_MM	ACZxx-811G-yyyy	²
MAINTENANCE MODE	ACZxx-8049-yyyy	³
PART 121 LINUX	BFBxx-L121-yyyy	
PART 25 LINUX	BFBxx-L025-yyyy	

EFB LINUX SYSTEM - MANDATORY SOFTWARE PARTS

LSAP NAME ¹	P/N ¹	NOTES
ADC APPLICATION	BFBxx-ADCP-yyyy	
ADC CUSTOMER CONFIG	BFBxx-ADCC-yyyy	
ADC SUPPLIER CONFIG	BFBxx-ADCS-yyyy	
APP_SYS_SUP	ACZxx-805A-yyyy	
DDM APPLICATION	JEPxx-DMEP-yyyy	
EFB SERVICES	BFBxx-ESRV-yyyy	
EFB WIRELESS SW	OPTxx-EWCB-yyyy	
PART 121 WINDOWS	BFBxx-W121-yyyy	
PART 25 WINDOWS	BFBxx-W025-yyyy	
WINDOWS OS	ACZxx-8241-yyyy	
WPM APPLICATION	BFBxx-WPMA-yyyy	
WPM CFG AND DRIVERS	BFBxx-WPMC-yyyy	

EFB WINDOWS SYSTEM - MANDATORY SOFTWARE PARTS

- ¹ SPECIFIC PARTS DATA SHOWN IS FOR EXAMPLE ONLY. REFER TO OPERATOR'S ENGINEERING FOR THE CORRECT PARTS DATA.
- ² TO REMOVE THIS LSAP, YOU MUST REIMAGE THE PARTITION.
- ³ THIS LSAP IS INSTALLED INTO FLASH MEMORY USING LOAD MODE. THE LSAP CAN BE UPDATED, BUT NOT ERASED OR REMOVED.

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EFB Software
Figure 303/46-11-00-990-826

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Figure 304/46-11-00-990-823

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801. Onboard Network System (ONS) Fault Message Table

A. Fault Isolation Procedure

- (1) Look in the table below for the fault message(s) and fault code(s) that show on the NFS MESSAGES page. The NFS MESSAGES page shows when you select CONDITION MONITORING>NFS>NFS MESSAGES. Under the LRU NAME column, if a message shows, select the message for more details so that fault code(s) and fault message(s) details show. Then, go to the applicable FIM task in the table below for the message that shows.

NOTE: Only LRUs/Systems that have an interface with ONS and that have fault code(s) and fault message(s) show on the NFS MESSAGES page. If an LRU/System that has an interface with ONS does not have a fault code or fault message, that LRU/System will not show on the NFS MESSAGES page.

Onboard Network System Fault Messages

FAULT CODE	FAULT MESSAGE	GO TO FIM TASK
46-001	ONS NFS-1 FAIL	46-13 TASK 802
ARO 011-013 PRE SB 777-46-0066		
46-003	EEMU~NFS1 ETHERNET BUS FAIL	46-13 TASK 860
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-007	FD PRINTER NFS-1 ETHERNET BUS FAIL	46-13 TASK 804
46-008	EU-L NFS-1 ETHERNET BUS FAIL	46-13 TASK 805
46-010	EU-R NFS-1 ETHERNET BUS FAIL	46-13 TASK 806
46-013	TWLU NFS-1 BUS FAIL	46-13 TASK 807
ARO 011-013 PRE SB 777-46-0066		
46-021	OAS CERTIFICATE MISMATCH	46-13 TASK 861
46-022	EXPIRED AIRPLANE CERTIFICATE IN RADIUS CHAIN	46-13 TASK 862
46-023	AIRPLANE CERTIFICATE EXPIRING SOON	46-13 TASK 863
46-027	AIRPLANE DATA DOES NOT MATCH SECURITY CERTIFICATE	46-13 TASK 864
46-028	EXPIRED CRATE SIGNING CERTIFICATE	46-13 TASK 865
46-029	EXPIRED VPN/TLS CERTIFICATE	46-13 TASK 866
46-030	EXPIRED COMMAND SIGNING CERTIFICATE	46-13 TASK 867
46-031	EXPIRED SOFTWARE PART SIGNING CERTIFICATE	46-13 TASK 868
46-032	EXPIRED GATELINK CERTIFICATE	46-13 TASK 869
46-034	EXPIRED SECURITY TRUST ANCHORS	46-13 TASK 870
46-035	EXPIRED AIRLINE CERTIFICATE AUTHORITY CERTIFICATE	46-13 TASK 871
46-036	AIRLINE CA CERT WILL EXPIRE WITHIN 30 DAYS OR LESS	46-13 TASK 872
46-037	NFS-1 UPDOWN SERVICE FAIL	46-13 TASK 873
46-039	The TWLU data in the EXCOMM AMI fails validation	46-13 TASK 874

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ARO 001-010; ARO 011-013 PRE SB 777-46-0066

46-13 TASK 801

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ARO 011-013 PRE SB 777-46-0066 (Continued)

Onboard Network System Fault Messages (Continued)

FAULT CODE	FAULT MESSAGE	GO TO FIM TASK
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-040	The cellular data in the EXCOMM AMI fails validation	46-13 TASK 875
ARO 011-013 PRE SB 777-46-0066		
46-041	EXPIRED CERTIFICATE REVOCATION LIST	46-13 TASK 876
46-043	NED-DG~NFS1 ETHERNET BUS FAIL	46-13 TASK 877
46-045	AIMS-L~NFS1 'GP#1' BUS FAIL	46-13 TASK 878
46-046	AIMS-L~NFS1 'GP#3' BUS FAIL	46-13 TASK 879
46-047	AIMS-L~NFS1 'GP#4' BUS FAIL	46-13 TASK 880
46-048	AIM-L~NFS1 'IRS' BUS FAIL	46-13 TASK 881
46-050	AIMS-R~NFS1 'GP#1' BUS FAIL	46-13 TASK 882
46-051	AIMS-R~NFS1 'GP#3' BUS FAIL	46-13 TASK 883
46-052	AIMS-R~NFS1 'GP#4' BUS FAIL	46-13 TASK 884
46-053	AIMS-R~NFS1 'IRS' BUS FAIL	46-13 TASK 885
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-056	ONS SERVICE FAIL	46-13 TASK 814
ARO 011-013 PRE SB 777-46-0066		
46-057	AIMS-L~NFS1 'CMCS C' BUS FAIL	46-13 TASK 886
46-061	The NED-DG is failed, is in load mode, or has invalid client credentials.	46-13 TASK 887
46-064	AIMS-L~NED-DG ETHERNET BUS FAIL	46-13 TASK 888
46-065	AIMS-R~NED-DG ETHERNET BUS FAIL	46-13 TASK 889
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-069	NFS-1 FILE STORE SERVICE FAIL	46-13 TASK 816
46-071	NFS-1 SYSLOG SERVICE FAIL	46-13 TASK 817
46-072	NFS-1 DNS SERVICE FAIL	46-13 TASK 818
46-073	NFS-1 AVIONICS SERVICE FAIL	46-13 TASK 819
46-074	NFS-1 SOFTWARE FAIL	46-13 TASK 820
46-078	SECURITY LOG FULL	46-13 TASK 821
46-120	FlightDeck Printer Fault	31-33 TASK 807
46-121	FlightDeck Printer Offline	31-33 TASK 808
46-140	DHCP service didn't initialize or reached the restart limit	46-13 TASK 822
46-141	NTP service didn't initialize or reached the restart limit	46-13 TASK 823
46-142	SAPS service didn't initialize or reached the restart limit	46-13 TASK 824

EFFECTIVITY
ARO 001-010; ARO 011-013 PRE SB 777-46-0066

46-13 TASK 801

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Onboard Network System Fault Messages (Continued)

FAULT CODE	FAULT MESSAGE	GO TO FIM TASK
46-143	Any hard drive fault (write errors) in File Store Service	46-13 TASK 825
ARO 001-010		
46-144	LOAD REQUEST IS REJECTED DUE TO INAPPROPRIATE DATALOAD STATE	46-13 TASK 826
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-147	Insufficient storage space in the ONS MSD for a to-be loaded LSAP	46-13 TASK 828
ARO 001-010		
46-148	VALIDITY CHECKS FAILED FOR A LSAP WHILE ATTEMPTING TO STAGE TO MSD OR DATALOAD	46-13 TASK 829
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-149	Application Hosting Service didn't initialize	46-13 TASK 830
46-150	NFS 1 has a loaded part that fails validity check	46-13 TASK 831
ARO 001-010		
46-151	The NED inside the NFS1 fails	46-13 TASK 832
ARO 011-013 PRE SB 777-46-0066		
46-151	The NED inside the NFS1 is failed or has invalid client credentials	46-13 TASK 890
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-152	A NetManager AMI has failed validation	46-13 TASK 833
46-153	OAS_NON_EXIST_KEY_REQST	46-13 TASK 857
ARO 001-010		
46-154	Source IP address of client does not match IP address in the database	46-13 TASK 834
46-155	Received request for non-existent client	46-13 TASK 835
46-156	Client failed to respond to re-key notification message	46-13 TASK 836
46-157	Client failed to validate installation of credentials	46-13 TASK 837
46-158	Self Monitor of NFS1 indicates an internal communication failure	46-13 TASK 838
ARO 001-010; ARO 011-013 PRE SB 777-46-0066		
46-159	OBEDS failed to load OAS Certificates and/or private key after 10 minutes	46-13 TASK 845
46-160	OBEDS detects expired or missing OAS certificate	46-13 TASK 846
46-161	OBEDS operational error detected	46-13 TASK 847
46-162	OBEDS cannot authenticate ground server connection	46-13 TASK 848
46-165	An OAS AMI has failed validation	46-13 TASK 849
46-166	The Satellite data in the EXCOMM AMI fails validation	46-13 TASK 841
46-167	The OBEDS data in the EXCOMM AMI fails validation.	46-13 TASK 852

EFFECTIVITY
ARO 001-010; ARO 011-013 PRE SB 777-46-0066

46-13 TASK 801

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Onboard Network System Fault Messages (Continued)

FAULT CODE	FAULT MESSAGE	GO TO FIM TASK
46-168	A NetManager OPC has failed validation	46-13 TASK 842
46-281	NO_TAIL_FOR_PPPOE_CREDENTIALS	46-13 TASK 853
46-911	WWU is failed or has invalid client credentials	46-11 TASK A04
46-912	AIRLAN_CELLULAR_OPC_FAULT	46-11 TASK A05
46-913	The cellular data in the EXCOMM AMI fails validation	46-11 TASK A06
46-914	WWU RF ENABLE~NFS1 DISCRETE FAIL	46-11 TASK A07
46-915	WWU WOW DISCRETE FAIL	46-11 TASK A08

———— **END OF TASK** ————

802. 46-001 Fault Code (ONS NFS-1 FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-001 (ONS NFS-1 FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This is a high-level fault that is triggered by lower level faults and there are no fault isolation procedures for this fault.
- (3) Therefore, it is necessary to do the Initial Evaluation steps that follow. Then, do the fault isolation procedure steps below to find the applicable FIM task to use.

B. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-001 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-001 shows, then look for more fault codes and do the steps that follow.

C. Fault Isolation Procedure

- (1) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-143 also shows at the same time as Fault Code 46-001, then do this task:
46-143 Fault Code (Any hard drive fault [write errors] in File Store Service Message) Shows - Fault Isolation, 46-13 TASK 825
- (2) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-149 also shows at the same time as Fault Code 46-001, then do this task:
46-149 Fault Code (APPLICATION HOSTING SERVICE DIDN'T INITIALIZE Message) Shows - Fault Isolation, 46-13 TASK 830
- (3) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-150 also shows at the same time as Fault Code 46-001, then do this task:
46-150 Fault Code (NFS 1 HAS A LOADED PART THAT FAILS VALIDITY CHECK Message) Shows - Fault Isolation, 46-13 TASK 831
- (4) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-151 also shows at the same time as Fault Code 46-001, then do this task:

EFFECTIVITY
ARO 001-010; ARO 011-013 PRE SB 777-46-0066

46-13 TASKS 801-802

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46-151 Fault Code (NED INSIDE THE NFS1 FAILS Message) Shows - Fault Isolation,
46-13 TASK 832 or 46-151 Fault Code (The NED inside the NFS1 is failed or has invalid client
credentials) Shows - Fault Isolation, 46-13 TASK 890

— END OF TASK —

804. **46-007 Fault Code (FD PRINTER NFS-1 ETHERNET BUS FAIL Message) Shows - Fault Isolation**

A. Description

- (1) Use this task when Fault Code 46-007 (FD PRINTER NFS-1 ETHERNET BUS FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when FLT DECK PRNTR shows in the LRU NAME column.
- (2) This fault shows the interface between the NFS and the flight compartment printer is not found. Possible fault indications related to this fault are you cannot print ONS reports to the Flight Deck Printer or you are not able to print graphics from the EFBs.

B. Possible Causes

- (1) Wiring
- (2) Network File Server (NFS), M46009
- (3) Flight Compartment Printer, M31004

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-007 (FD PRINTER NFS-1 ETHERNET BUS FAIL Message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-007 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the MAT for active maintenance messages associated with the Flight Compartment Printer.
 - (a) If you find active flight compartment printer related maintenance messages, then do the FIM task for the message that shows (31-33 TASKS, PAGEBLOCK 31-33-00/201).
 - 1) After you correct the printer related fault, click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - 2) If Fault Code 46-007 does not show, then you corrected the fault.
 - 3) If Fault Code 46-007 still shows, then continue.
 - (b) If you do not find active flight compartment printer related maintenance messages, then continue.
- (2) Do the steps that follow to examine the wiring.
 - (a) Remove the NFS. Do this task:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - (b) Remove the Flight Compartment Printer. Do this task:
Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801
 - (c) Do this check of the ethernet wiring (WDM 46-13-11):



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E/E Compartment/Flight Compartment

NFS	Flight Deck Printer
DM460009AB	DM31004A
CC-1	G
CC-2	G -
CC-3	H
CC-4	H -

- 1) If you find a problem, repair the wiring.
 - a) Install the NFS. Do this task:
Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - b) Install the Flight Compartment Printer. Do this task:
Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801
 - c) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - d) If Fault Code 46-007 does not show, then you corrected the fault.
- 2) If you do not find a problem with the wiring, then continue.
- (3) Replace the NFS. These are the tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (4) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-007 does not show, then you corrected the fault.
 - (b) If Fault Code 46-007 still shows, then continue.
- (5) Replace the Flight Compartment Printer. These are the tasks:
Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801
Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801
- (6) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-007 does not show, then you corrected the fault.

———— END OF TASK ————

805. 46-008 Fault Code (EU-L NFS-1 ETHERNET BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-008 (EU-L NFS-1 ETHERNET BUS FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when EU-L shows in the LRU NAME column.
- (2) This fault shows the interface between the NFS and the Captains EFB EU is not found. Possible problems related to this fault are the Captain's EFB cannot print or it is not able to establish a connection to any ground servers.

B. Possible Causes

- (1) Wiring
- (2) Network File Server (NFS), M46009

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ARO 001-010; ARO 011-013 PRE SB 777-46-0066

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- (3) Captain's EU, M46102

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
- (a) If Fault Code 46-008 (EU-L NFS-1 ETHERNET BUS FAIL message) does not show, then the fault was intermittent. No action is necessary.
- (b) If Fault Code 46-008 (EU-L NFS-1 ETHERNET BUS FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the Captain's EFB Fault Log page for fault messages (Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801).
- (a) If you find EFB related fault messages, then do the FIM task for the message that shows (46-11 Crew Information System - Tasks, PAGEBLOCK 46-11-00/201).
- 1) After you correct the EFB related fault, click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
- 2) If Fault Code 46-008 does not show, then you corrected the fault.
- 3) If Fault Code 46-008 still shows, then continue.
- (b) If you do not find EFB related fault messages, then continue.
- (2) Do the steps that follow to examine the wiring.
- (a) Remove the NFS. Do this task:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
- (b) Remove the Captain's EU. Do this task:
Electronic Unit Removal, AMM TASK 46-11-03-000-801
- (c) Do this check of the ethernet wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NFS	Captain's EU
DM460009AB	DN46102AA
DD-1	17T
DD-2	14T
DD-3	17TR
DD-4	14TR

- 1) If you find a problem, repair the wiring.
- a) Install the NFS. Do this task:
Network File Server Installation, AMM TASK 46-13-01-400-801-001
- b) Install the Captain's EU. Do this task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801
- c) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
- d) If Fault Code 46-008 does not show, then you corrected the fault.
- 2) If you do not find a problem with the wiring, then continue.
- (3) Replace the NFS. These are the tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001



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Network File Server Installation, AMM TASK 46-13-01-400-801-001

- (4) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-008 does not show, then you corrected the fault.
 - (b) If Fault Code 46-008 still shows, then continue.
- (5) Replace the Captain's EU. These are the tasks:

Electronic Unit Removal, AMM TASK 46-11-03-000-801

Electronic Unit Installation, AMM TASK 46-11-03-400-801
- (6) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-008 does not show, then you corrected the fault.

————— **END OF TASK** —————

806. 46-010 Fault Code (EU-R NFS-1 ETHERNET BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-010 (EU-R NFS-1 ETHERNET BUS FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when EU-R shows in the LRU NAME column.
- (2) This fault shows the interface between the NFS and the First Officer's EFB EU is not found. Possible problems related to this fault are the First Officer's EFB cannot print or it is not able to establish a connection to any ground servers.

B. Possible Causes

- (1) Wiring
- (2) Network File Server (NFS), M46009
- (3) First Officer's EU, M46202

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-010 (EU-R NFS-1 ETHERNET BUS FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-010 (EU-R NFS-1 ETHERNET BUS FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the First Officer's EFB Fault Log page for fault messages (Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801).
 - (a) If you find EFB related fault messages, then do the FIM task for the message that shows (46-11 Crew Information System - Tasks, PAGEBLOCK 46-11-00/201).
 - 1) After you correct the EFB related fault, click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - 2) If Fault Code 46-010 does not show, then you corrected the fault.
 - 3) If Fault Code 46-010 still shows, then continue.
 - (b) If you do not find EFB related fault messages, then continue.
- (2) Do the steps that follow to examine the wiring.
 - (a) Remove the NFS. Do this task:

Network File Server Removal, AMM TASK 46-13-01-000-801-001



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- (b) Remove the First Officer's EU. Do this task:
Electronic Unit Removal, AMM TASK 46-11-03-000-801
- (c) Do this check of the ethernet wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NFS	First Officer's EU
DM460009AB	DN46202AA
EE-1	17T
EE-2	14T
EE-3	17TR
EE-4	14TR

- 1) If you find a problem, repair the wiring.
 - a) Install the NFS. Do this task:
Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - b) Install the First Officer's EU. Do this task:
Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - c) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - d) If Fault Code 46-010 does not show, then you corrected the fault.
- 2) If you do not find a problem with the wiring, then continue.
- (3) Replace the NFS. These are the tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (4) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-010 does not show, then you corrected the fault.
 - (b) If Fault Code 46-010 still shows, then continue.
- (5) Replace the First Officer's EU. These are the tasks:
Electronic Unit Removal, AMM TASK 46-11-03-000-801
Electronic Unit Installation, AMM TASK 46-11-03-400-801
- (6) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-010 does not show, then you corrected the fault.

———— **END OF TASK** ————



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807. 46-013 Fault Code (TWLU NFS-1 BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-013 (TWLU NFS-1 BUS FAIL message) shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > TWLU.

NOTE: The text in this fault code message specifies the terminal wireless LAN unit (TWLU). The wireless wide area network unit (WWU) includes the functions of the TWLU. For this task and this fault code message, TWLU refers only to the WWU, M44630. This condition will be corrected in a future ONS software revision, and is not a fault.
- (2) This fault shows the interface between the NFS and the WWU is not found. Possible problems related to this fault are airplane systems cannot connect to any ground servers using Gatelink.

B. Possible Causes

- (1) Wiring
- (2) Network File Server (NFS), M46009
- (3) WWU, M44630.

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-013 (TWLU NFS-1 BUS FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-013 (TWLU NFS-1 BUS FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do this task to find any TWLU related fault messages on the EFB Fault Log page (Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801).
 - (a) If you find TWLU related fault messages, then do the FIM task for the message that shows (46-11 Crew Information System - Tasks, PAGEBLOCK 46-11-00/201).
 - 1) After you correct the TWLU related fault, click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - 2) If Fault Code 46-013 does not show, then you corrected the fault.
 - 3) If Fault Code 46-013 still shows, then continue.
 - (b) If you do not find TWLU related fault messages, then continue.
- (2) Do the steps that follow to examine the wiring.
 - (a) Remove the NFS. Do this task:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - (b) Remove the WWU. Do this task:
Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - (c) Do this check of the ethernet wiring (WDM 46-13-11):



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E/E Compartment/Airplane Crown

NFS	WWU	
DM460009AB	DM44360B	
FF-1	1-2	0
FF-2	1-1	0
FF-3	1-4	0
FF-4	1-3	0

- 1) If you find a problem, repair the wiring.
 - a) Install the NFS. Do this task:
Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - b) Install the WWU. Do this task:
Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
 - c) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - d) If Fault Code 46-013 does not show, then you corrected the fault.
- 2) If you do not find a problem with the wiring, then continue.
- (3) Replace the NFS. These are the tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (4) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-013 does not show, then you corrected the fault.
 - (b) If Fault Code 46-013 still shows, then continue.
- (5) Remove the WWU, and install a serviceable WWU. Do these tasks: (Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801, and Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801).
- (6) Click refresh on the browser, or exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-013 does not show, then you corrected the fault.

————— **END OF TASK** —————

814. **46-056 Fault Code (ONS SERVICE FAIL Message) Shows - Fault Isolation**

A. Description

- (1) Use this task when Fault Code 46-056 (ONS SERVICE FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This is a high-level fault that is triggered by lower level faults and there are no fault isolation procedures for this fault.
- (3) Therefore, it is necessary to do the Initial Evaluation steps that follow. Then, do the fault isolation procedure steps below to find the applicable FIM task to use.

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B. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-056 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-056 shows, then look for more fault codes and do the steps that follow.

C. Fault Isolation Procedure

- (1) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-073 also shows at the same time as Fault Code 46-056, then do this task:
46-073 Fault Code (NFS-1 AVIONICS SERVICE FAIL Message) Shows - Fault Isolation, 46-13 TASK 819
- (2) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-141 also shows at the same time as Fault Code 46-056, then do this task:
46-141 Fault Code (NTP SERVICE DIDN'T INITIALIZE OR REACHED THE RESTART LIMIT Message) Shows - Fault Isolation, 46-13 TASK 823
- (3) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-142 also shows at the same time as Fault Code 46-056, then do this task:
46-142 Fault Code (SAPS SERVICE DIDN'T INITIALIZE OR REACHED THE RESTART LIMIT Message) Shows - Fault Isolation, 46-13 TASK 824

— END OF TASK —

816. 46-069 Fault Code (NFS-1 FILE STORE SERVICE FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-069 (NFS-1 FILE STORE SERVICE FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the service. One possible problem related to this fault code is for CNAS hosted applications, you cannot save data on the NFS. Also, it is possible you cannot store or retrieve software parts for configuration update of the NFS.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-069 (NFS-1 FILE STORE SERVICE FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-069 (NFS-1 FILE STORE SERVICE FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.



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- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-069 does not show, then you corrected the fault.
 - (b) If Fault Code 46-069 still shows, then continue.
- (3) Reload NetMan, NFS OS and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-069 does not show, then you corrected the fault.
 - (b) If Fault Code 46-069 still shows, then continue.
- (5) Reformat the NFS disk. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-069 does not show, then you corrected the fault.

————— **END OF TASK** —————

817. **46-071 Fault Code (NFS-1 SYSLOG SERVICE FAIL Message) Shows - Fault Isolation**

A. Description

- (1) Use this task when Fault Code 46-071 (NFS-1 SYSLOG SERVICE FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the service. One possible problem related to this fault code is NFS internal software cannot create and save logs.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-071 (NFS-1 SYSLOG SERVICE FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-071 (NFS-1 SYSLOG SERVICE FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-071 does not show, then you corrected the fault.
 - (b) If Fault Code 46-071 still shows, then continue.
- (3) Reload NetMan, NFS OS and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801



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- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-071 does not show, then you corrected the fault.
 - (b) If Fault Code 46-071 still shows, then continue.
- (5) Reformat the NFS drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-071 does not show, then you corrected the fault.

— END OF TASK —

818. 46-072 Fault Code (NFS-1 DNS SERVICE FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-072 (NFS-1 DNS SERVICE FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the service. One possible, observed problem related to this fault code is you cannot get access to certain, specific NFS url sites or IP addresses.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-072 (NFS-1 DNS SERVICE FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-072 (NFS-1 DNS SERVICE FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

ARO 001-004

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-072 does not show, then you corrected the fault.
 - (b) If Fault Code 46-072 still shows, then continue.

ARO 005-010; ARO 011-013 PRE SB 777-46-0066

- (3) Open and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>

ARO 011-013 PRE SB 777-46-0066

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ARO 001-010; ARO 011-013 PRE SB 777-46-0066

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ARO 011-013 PRE SB 777-46-0066 (Continued)

(Continued)

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

ARO 005-010; ARO 011-013 PRE SB 777-46-0066

B	27	C46411	NETWORK FILE SERVER

This circuit breaker is inoperative and should remain open:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>

ARO 005-010

F	23	C46414	NED-DG (INOP)

ARO 005-010; ARO 011-013 PRE SB 777-46-0066

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-072 does not show, then you corrected the fault.
 - (b) If Fault Code 46-072 still shows, then continue.

ARO 001-010; ARO 011-013 PRE SB 777-46-0066

- (5) Reload NetMan, NFS OS and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-072 does not show, then you corrected the fault.
 - (b) If Fault Code 46-072 still shows, then continue.
- (7) Reformat the NFS drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (8) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-072 does not show, then you corrected the fault.

————— **END OF TASK** —————

819. 46-073 Fault Code (NFS-1 AVIONICS SERVICE FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-073 (NFS-1 AVIONICS SERVICE FAIL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the service. One possible, observed problem related to this fault code is CNAS hosted applications cannot get access to ARINC 429 and discrete data.

B. Possible Causes

- (1) Software

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ARO 001-010; ARO 011-013 PRE SB 777-46-0066

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C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-073 (NFS-1 AVIONICS SERVICE FAIL message) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-073 (NFS-1 AVIONICS SERVICE FAIL message) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-073 does not show, then you corrected the fault.
 - (b) If Fault Code 46-073 still shows, then continue.
- (3) Reload NetMan, NFS OS and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-073 does not show, then you corrected the fault.
 - (b) If Fault Code 46-073 still shows, then continue.
- (5) Run Reformat Operational Software Disk task. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-073 does not show, then you corrected the fault.

————— **END OF TASK** —————

820. 46-074 Fault Code (NFS-1 SOFTWARE FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-074 (NFS-1 SOFTWARE FAIL Message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This is a high-level fault that is triggered by lower level faults and there are no fault isolation procedures for this fault.
- (3) Therefore, it is necessary to do the Initial Evaluation steps that follow. Then, do the fault isolation procedure steps below to find the applicable FIM task to use.

B. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-074 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-074 shows, then look for more fault codes and do the steps that follow.



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C. Fault Isolation Procedure

- (1) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-069 also shows at the same time as Fault Code 46-074, then do this task:
46-069 Fault Code (NFS-1 FILE STORE SERVICE FAIL Message) Shows - Fault Isolation, 46-13 TASK 816
- (2) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-071 also shows at the same time as Fault Code 46-074, then do this task:
46-071 Fault Code (NFS-1 SYSLOG SERVICE FAIL Message) Shows - Fault Isolation, 46-13 TASK 817
- (3) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-072 also shows at the same time as Fault Code 46-074, then do this task:
46-072 Fault Code (NFS-1 DNS SERVICE FAIL Message) Shows - Fault Isolation, 46-13 TASK 818
- (4) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-140 also shows at the same time as Fault Code 46-074, then do this task:
46-140 Fault Code (DHCP SERVICE DIDN'T INITIALIZE OR REACHED THE RESTART LIMIT Message) Shows - Fault Isolation, 46-13 TASK 822

————— END OF TASK —————

821. 46-078 Fault Code (SECURITY LOG FULL Message) Shows - Fault Isolation

A. General

- (1) Use this task when Fault Code 46-078 (SECURITY LOG FULL message) shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault is detected by internal monitoring of the security partition. Usage is currently limited to 95% full. When that limit is exceeded, there is a possible loss of security data.

B. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-078 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-078 shows, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Make sure you first talk to your engineering department and then, remove all unnecessary security logs that can be deleted. Do the steps that follow.
- (2) Set the ONS maintenance browser to show the NFS LOGS page.
 - (a) Make your selection: CONDITION MONITORING > NFS > NFS LOGS.
 - (b) When the NFS LOGS box shows, do these steps:
 - 1) Click once on the applicable log type (SECURITY) to highlight.
 - 2) Click once on the CONTINUE button.
- (3) To erase a security log file from the NFS, do the steps that follow.
 - (a) Click once on the target log file(s). You can highlight one, some, or all of the log files.
 - (b) Click once on the DELETE button.
 - (c) When the confirmation box shows, click once on the CONFIRM button.



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- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-078 does not show, then you corrected the fault.

————— END OF TASK —————

822. 46-140 Fault Code (DHCP SERVICE DIDN'T INITIALIZE OR REACHED THE RESTART LIMIT Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-140 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the service and indicates Dynamic Host Configuration Protocol (DHCP) service didn't initialize or it reached the restart limit. It is detected by internal monitoring of the DHCP service.

NOTE: DHCP is the protocol that lets a computer get it's IP address, its default gateway address and Domain Name Server information.

- (3) One possible, observed problem related to this fault code is the laptop cannot connect to the NFS because it is not assigned an IP address.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-140 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-140 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-140 does not show, then you corrected the fault.
 - (b) If Fault Code 46-140 still shows, then continue.
- (3) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-140 does not show, then you corrected the fault.
 - (b) If Fault Code 46-140 still shows, then continue.
- (5) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.



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- (a) If Fault Code 46-140 does not show, then you corrected the fault.

————— END OF TASK —————

823. 46-141 Fault Code (NTP SERVICE DIDN'T INITIALIZE OR REACHED THE RESTART LIMIT Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-141 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the Network Time Protocol (NTP) service.
- (3) Possible problems related to this fault code are improper date and time shows for systems using NFS NTP service. Also, it is possible the wrong date and time shows for NFS logs and faults.

B. Possible Causes

- (1) Software
- (2) Electronic Flight bag (EFB) faults

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-141 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-141 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-141 does not show, then you corrected the fault.
 - (b) If Fault Code 46-141 still shows, then continue.
- (3) Examine the Captain's EFB and First Officer's Fault Log page for fault messages (Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801).
 - (a) If you find EFB related fault messages, then do the FIM task for the message that shows (46-11 Crew Information System - Tasks, PAGEBLOCK 46-11-00/201).
 - 1) After you correct the EFB related fault, click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 2) If Fault Code 46-141 does not show, then you corrected the fault.
 - 3) If Fault Code 46-141 still shows, then continue.
 - (b) If you do not find EFB related fault messages, then continue.
- (4) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801



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- (5) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-141 does not show, then you corrected the fault.
 - (b) If Fault Code 46-141 still shows, then continue.
- (6) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (7) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-141 does not show, then you corrected the fault.

— END OF TASK —

824. 46-142 Fault Code (SAPS SERVICE DIDN'T INITIALIZE OR REACHED THE RESTART LIMIT Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-142 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected with internal monitoring of the Standard Aircraft Parameter Service (SAPS). It indicates SAPS didn't initialize or it reached the restart limit.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-142 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-142 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-142 does not show, then you corrected the fault.
 - (b) If Fault Code 46-142 still shows, then continue.
- (3) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-142 does not show, then you corrected the fault.
 - (b) If Fault Code 46-142 still shows, then continue.
- (5) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801



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- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-142 does not show, then you corrected the fault.

————— END OF TASK —————

825. 46-143 Fault Code (Any hard drive fault [write errors] in File Store Service Message) Shows - Fault Isolation

A. Description

- (1) This procedure gives the steps to correct the Onboard Network System (ONS) fault code 46-143.
 - (a) The fault code text for 46-143 is: Any hard drive fault (write errors) in File Store Service.
- (2) This fault code shows when the NFS1 solid state drive fails to write data. This drive contains the File Store Service.

B. Possible Causes

- (1) Software
- (2) Network File Server (NFS), M46009

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-143 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-143 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-143 does not show, then you corrected the fault.
 - (b) If Fault Code 46-143 still shows, then continue.
- (3) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (4) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-143 does not show, then you corrected the fault.
 - (b) If Fault Code 46-143 still shows, then continue.
- (5) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
- (6) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-143 does not show, then you corrected the fault.
 - (b) If Fault Code 46-143 still shows, then continue.



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- (7) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (8) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-143 does not show, then you corrected the fault.

————— END OF TASK —————

ARO 001-010

826. 46-144 Fault Code (LOAD REQUEST IS REJECTED DUE TO INAPPROPRIATE DATALOAD STATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-144 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code shows when a data load attempt was rejected due to a sensed, incorrect aircraft state. The system does not let you install data or software when the system senses the airplane is not on the ground. This fault code shows when the air/ground discrete indicates the airplane is in the air when a load was attempted.

B. Possible Causes

- (1) AIR/GND Relay, K32120
- (2) Wiring
- (3) NFS, M46009

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-144 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-144 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do the steps that follow to examine the wiring.
 - (a) Apply Electrical Power. This is the task: Supply Electrical Power, AMM TASK 24-22-00-860-805.
 - (b) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - (c) Do a check for continuity to ground at contact K3 on NFS connector DM46009AA (WDM 46-13-11).
 - (d) If the wiring check does not read continuity to ground, then do the steps that follow:
 - 1) Replace Relay K32120 at the P110 Power Management Panel (SSM 46-13-11).
 - 2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - a) If Fault Code 46-144 does not show, then you corrected the fault.
- <1> Install the NFS. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001

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- b) If the fault continues, examine the wiring between contact K3 on NFS connector DM46009AA and contact B2 of connector DK32120 at the P110 power management panel (WDM 46-13-11).
 - <1> If you find a problem with the wiring, repair the wiring.
 - <2> Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - <3> If Fault Code 46-144 does not show, then you corrected the fault.
 - <a> Install the NFS. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (e) If the wiring check reads continuity to ground, then continue.
- (2) If the fault continues, replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (3) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-144 does not show, then you corrected the fault.

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————— **END OF TASK** —————

828. 46-147 Fault Code (INSUFFICIENT STORAGE SPACE Message) Shows - Fault Isolation

A. Description

- (1) This procedure gives the steps to correct the onboard network system (ONS) fault code 46-147.
 - (a) The fault code text for 46-147 is: Insufficient storage space in the ONS MSD for a to-be-loaded LSAP.
- (2) This fault code shows when there is not enough storage space in the ONS Mass Storage Device (MSD). No more loadable software parts (LSAPs) can be staged to the Mass Storage Device (MSD) due to insufficient space available.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-147 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-147 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Delete all unnecessary software parts from the MSD. Do this task:
Mass Storage Device Software Removal, AMM TASK 46-13-00-070-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-147 does not show, then you corrected the fault.

————— **END OF TASK** —————

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ARO 001-010

829. 46-148 Fault Code (VALIDITY CHECKS FAILED FOR A LSAP WHILE ATTEMPTING TO STAGE TO MSD OR DATALOAD Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-148 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code is detected when a Loadable Software Airplane Part (LSAP) has failed validity checks while the Onboard Network System (ONS) is attempting to stage it to the Mass Storage Device (MSD) or to data load it to an Line Replaceable Unit (LRU) that interfaces with ONS.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-148 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-148 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-148 does not show, then you corrected the fault.
 - 2) If Fault Code 46-148 still shows, then continue.
- (2) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. This is the task: Network File Server Software Installation, AMM TASK 46-13-01-470-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-148 does not show, then you corrected the fault.
 - 2) If Fault Code 46-148 still shows, then continue.
- (3) Reformat the NFS Operational Drive. This is the task: Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801.
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-148 does not show, then you corrected the fault.

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———— **END OF TASK** ————

EFFECTIVITY
ARO 001-010; ARO 011-013 PRE SB 777-46-0066

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830. 46-149 Fault Code (APPLICATION HOSTING SERVICE DIDN'T INITIALIZE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-149 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code shows when the internal application hosting service fails to initialize. Also, the system cannot run any CNAS framework applications.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-149 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-149 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-149 does not show, then you corrected the fault.
 - 2) If Fault Code 46-149 still shows, then continue.
- (2) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-149 does not show, then you corrected the fault.
 - 2) If Fault Code 46-149 still shows, then continue.
- (3) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-149 does not show, then you corrected the fault.

————— END OF TASK —————

831. 46-150 Fault Code (NFS 1 HAS A LOADED PART THAT FAILS VALIDITY CHECK Message) Shows - Fault Isolation

A. Description

- (1) This procedure gives the steps to correct onboard network system (ONS) fault code 46-150.
 - (a) The fault code text for 46-150 is: NFS 1 has a loaded part that fails validity check.



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- (2) This fault code shows when a Loadable Software Airplane Part (LSAP) on the NFS-1 fails a boot-time validation check, and is not loaded into memory.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-150 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-150 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

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- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-150 does not show, then you corrected the fault.
 - (b) If Fault Code 46-150 still shows, then continue.

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- (3) Do a check of existing faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-150 does not show, then you corrected the fault.
 - (b) If Fault Code 46-150 still shows, then continue.

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- (4) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-150 does not show, then you corrected the fault.
 - 2) If Fault Code 46-150 still shows, then continue.
- (5) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-150 does not show, then you corrected the fault.

————— **END OF TASK** —————



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832. 46-151 Fault Code (NED INSIDE THE NFS1 FAILS Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-151 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS-1 shows in the LRU NAME column.
- (2) This fault code shows when the internal Network Extension Device (NED) inside the NFS-1 fails. This fault code indicates there is a loss of all ARINC 429 receive and transmit functionality or you cannot get status of Ethernet busses.

B. Possible Causes

- (1) Software
- (2) Network File Server (NFS), M46009

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-151 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-151 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a client rekey of NFS. Do this task:
Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-151 does not show, then you corrected the fault.
 - 2) If Fault Code 46-151 still shows, then continue.
- (2) Install the NED OPS and NED OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-151 does not show, then you corrected the fault.
 - 2) If Fault Code 46-151 still shows, then continue.
- (3) Replace the NFS. Do these tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - 1) If Fault Code 46-151 does not show, then you corrected the fault.

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————— END OF TASK —————

833. 46-152 Fault Code (NETMANAGER AMI HAS FAILED VALIDATION Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-152 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS1 shows in the LRU NAME column.

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- (2) This fault code shows when an Onboard Network System (ONS) Airline Modifiable Information (AMI) software part has failed validation. Examples of AMI software parts are as follows:
 - AIRLINE CERTS AMI
 - AIRLINE CRL AMI
 - AIRPLANE KEYS AMI
 - EXCOMM AMI
- (3) This is a high-level fault that is triggered by lower level faults and there are no fault isolation procedures for this fault.
- (4) Therefore, it is necessary to do the Initial Evaluation steps that follow. Then, do the fault isolation procedure steps below to find the applicable FIM task to use.

B. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-152 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-152 shows, then look for more fault codes and do the steps that follow.

C. Fault Isolation Procedure

- (1) Look in the LRU NAME column. If NFS-1 shows, select it for more detail and if Fault Code 46-166 also shows at the same time as Fault Code 46-152, then do this task:
46-166 Fault Code (SATELLITE DATA IN THE EXCOMM AMI FAILS VALIDATION Message)
Shows - Fault Isolation, 46-13 TASK 841

————— END OF TASK —————

ARO 001-010

834. 46-154 Fault Code (SOURCE IP ADDRESS OF CLIENT DOES NOT MATCH IP ADDRESS IN THE DATABASE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-154 shows on the NFS MESSAGES page.
 - (a) You find this fault when SECURITY shows in the LRU NAME column.
- (2) This fault code shows when an onboard security client (OPKI) has performed an on-board security action with an IP address that does not match an expected IP address in the database.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-154 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-154 shows, then do the Fault Isolation Procedure below.

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ARO 001-010 (Continued)

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-154 does not show, then you corrected the fault.

————— **END OF TASK** —————

835. 46-155 Fault Code (RECEIVED REQUEST FOR NON-EXISTENT CLIENT Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-155 shows on the NFS MESSAGES page.
 - (a) You find this fault when SECURITY shows in the LRU NAME column.
- (2) This fault code shows when an un-registered onboard security client (OPKI), or a client that does not exist, has requested to use ONS services.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-155 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-155 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-155 does not show, then you corrected the fault.

————— **END OF TASK** —————

836. 46-156 Fault Code (CLIENT FAILED TO RESPOND TO RE-KEY NOTIFICATION Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-156 shows on the NFS MESSAGES page.
 - (a) You find this fault when SECURITY shows in the LRU NAME column.

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ARO 001-010 (Continued)

- (2) This fault code shows when an onboard security client (OPKI) has failed to respond to a re-key notification and cannot communicate with the client. There is a possible loss of functionality with the client or error messages from the client.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-156 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-156 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-156 does not show, then you corrected the fault.

————— END OF TASK —————

837. 46-157 Fault Code (CLIENT FAILED TO VALIDATE INSTALLATION OF CREDENTIALS Message)

Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-157 shows on the NFS MESSAGES page.
 - (a) You find this fault when SECURITY shows in the LRU NAME column.
- (2) This fault code shows when an onboard security client (OPKI) has failed to validate the installation of credentials. There is a possible loss of functionality with the client or error messages from the client.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-157 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-157 shows, then do the Fault Isolation Procedure below.



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ARO 001-010 (Continued)

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-157 does not show, then you corrected the fault.

————— **END OF TASK** —————

838. 46-158 Fault Code (SELF MONITOR OF NFS1 INDICATES INTERNAL COMMUNICATION FAILURE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-158 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS1 shows in the LRU NAME column.
- (2) This fault code shows when the NFS-1 self-monitor function senses an internal communication failure.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-158 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-158 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-158 does not show, then you corrected the fault.
 - (b) If Fault Code 46-158 still shows, then continue.
- (3) Reformat the NFS Operational Drive. Do this task:
Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801
 - (a) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.



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- 1) If Fault Code 46-158 does not show, then you corrected the fault.

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END OF TASK

841. 46-166 Fault Code (SATELLITE DATA IN THE EXCOMM AMI FAILS VALIDATION Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-166 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS1 shows in the LRU NAME column.
- (2) This fault code shows when the airplane system cannot connect to the ground servers using SATCOM. The fault is sensed when the SwiftBroad Band data in the ONS EXCOMM AMI software part fails validation.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-166 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-166 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-166 does not show, then you corrected the fault.
 - (b) If Fault Code 46-166 still shows, then continue.
- (3) Do the steps that follow to remove and install the EXCOMM AMI software part.
 - (a) Using the ONS maintenance browser, select LINE MAINTENANCE > SYSTEM CONFIGURATION.
 - (b) Click on UNINSTALL NFS PARTS.
 - (c) Highlight the software part (EXCOMM AMI) to uninstall and click SELECT.
 - (d) Click CONTINUE, and CONTINUE again at the pop up confirmation window.
 - (e) Make sure the page shows SUCCESS.
 - (f) Install the EXCOMM AMI software part. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
 - 1) Make sure you do the software installation check step.
 - (g) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.

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- (h) If Fault Code 46-166 does not show, then you corrected the fault.

————— END OF TASK —————

842. 46-168 Fault Code (NETMANAGER OPC HAS FAILED VALIDATION Message) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-168 shows on the NFS MESSAGES page.
 - (a) You find this fault when NFS1 shows in the LRU NAME column.
- (2) This fault code shows when the ONS network configuration software part fails validation. It is also possible for this fault code to show when you do not see certain, normal expected screen functionality.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Fault Code 46-168 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-168 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Click refresh on the browser or, exit and then re-enter the NFS MESSAGES page.
 - (a) If Fault Code 46-168 does not show, then you corrected the fault.

————— END OF TASK —————

843. ONS Maintenance Browser Connection Problems - Fault Isolation

A. Description

- (1) Use this FIM task when you cannot connect to the NFS web-based server.
 - (a) The conditions that follow can show when a laptop is connected to an NFS port but you cannot get access to the server or maintenance browser. It is possible to see one or more of these messages:
 - HTTP ERROR: 404
 - “The Page cannot be displayed”
 - “Network Timeout”
 - “No Connection to the Internet is currently available”

B. Possible Causes

- (1) NFS web service problem
- (2) Maintenance laptop network configuration settings

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- (3) Cable from laptop to airplane port
- (4) Network File Server, M46009
- (5) Wiring from airplane port to the NFS

C. Related Data

- (1) Onboard Network System Maintenance Laptop Connection, AMM TASK 46-13-00-480-801.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) Let the NFS reboot. Typically, this takes approximately five minutes, but not more than ten.
- (b) Set your web browser to show the ONS Maintenance menu (AMM TASK 46-13-00-480-801).
 - 1) If the ONS Maintenance main menu shows, you corrected the problem.
 - 2) If the ONS Maintenance menu does not show, then continue.
- (2) Remove power from the laptop and re-apply power.
 - (a) If you can connect to the ONS Maintenance Browser, then you corrected the fault.
 - (b) If you cannot connect to the ONS Maintenance Browser, then continue.
- (3) Examine the cables for loose connections or attachments that are not correct.
 - (a) If you can connect to the ONS Maintenance Browser, then you corrected the fault.
 - (b) If you cannot connect to the ONS Maintenance Browser, then continue.
- (4) Make sure of correct maintenance laptop configuration settings:
 - (a) Network Settings - Ethernet Port is enabled.
 - (b) IP Address Automatically is set to YES.
 - (c) DNS is set to AUTOMATIC.
 - (d) Browser Settings - no proxy servers are configured.
 - (e) If you can connect to the ONS Maintenance Browser, then you corrected the fault.
 - (f) If you cannot connect to the ONS Maintenance Browser, then continue.
- (5) Examine the front panel of the NFS, M46009.
 - (a) If the POWER light is not on, do the steps that follow:
 - 1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- 2) If the fault continues, examine the wiring between the circuit breaker and the NFS for 115V ac (volts alternating current) (WDM 46-13-11).
- 3) Repair any wiring problems that you find.
- 4) If you can connect to the ONS Maintenance Browser, then you corrected the fault.



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- (b) If the FAULT light is on, replace the Network File Server. These are the tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - 1) If you can connect to the ONS Maintenance Browser, then you corrected the fault.
 - 2) If you cannot connect to the ONS Maintenance Browser, then continue.
- (6) If the failure to connect was on a cabin port, connect the laptop to the flight deck port.
 - (a) If you can connect to the ONS Maintenance Browser with the flight deck port, then do the steps that follow:
 - 1) Do a software configuration check and make sure the correct NFS and NED OPC parts are installed. Do this task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - 2) Do a check with your engineering department to make sure the laptop is correctly configured to connect to cabin ports.
NOTE: Typically, the cabin ports allow access only using authorized tools.
 - 3) Examine the wiring from the cabin port to the NFS.
WDM 46-13-11
 - 4) Repair any problems that you find.
- (7) If the failure to connect was on the flight deck port, connect the laptop to the NFS front panel port.
 - (a) If you can connect to the ONS Maintenance Browser with the NFS front panel port, then do the steps that follow:
 - 1) Do a software configuration check and make sure the correct NFS and NED OPC parts are installed. Do this task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - 2) Examine the wiring from the flight deck port to the NFS.
WDM 46-13-11
 - 3) Repair any problems that you find.
- (8) If the fault continues, replace the Network File Server, M46009. These are the tasks:
Network File Server Removal, AMM TASK 46-13-01-000-801-001
Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) If you can connect to the ONS Maintenance Browser, then you corrected the fault.

————— END OF TASK —————

845. 46-159 Fault Code (OBEDS Failed To Load OAS Certificates) Shows - Fault Isolation

A. Description

- (1) This task gives the steps to correct ONS Fault Code 46-159.
 - (a) The fault text code for 46-159 is: OBEDS failed to load OAS Certificates and/or private key after 10 minutes.
- (2) This fault shows when this condition is present:
 - (a) ONS is energized for more than ten minutes, but did not receive date and time from the airplane source.

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B. Possible Causes

- (1) Airplane credentials.

C. Related Data

- (1) WDM 46-11-52.

D. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-159 (OBEDS Failed To Load OAS Certificates) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-159 (OBEDS Failed To Load OAS Certificates) shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

ARO 001-010

- (2) Do a check of CONDITION MONITORING > NFS > NFS MESSAGES (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) After your selection, look for the store named NFS1.
 - (b) If NFS1 shows, then select NFS1, and look for 46-159.
 - (c) If 46-159 shows, then continue.

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- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults, (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) After your selection, look for the store named NFS1.
 - (b) If NFS1 shows, then select NFS1, and look for 46-159.
 - 1) If 46-159 does not show, then the problem is corrected.
 - 2) If 46-159 shows, then continue.

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- (4) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credentials, then do the corrective action specified in that task.

F. Repair Confirmation

ARO 001-010

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.



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ARO 011-013 PRE SB 777-46-0066

- (2) When the selection Extended Maintenance > ONS Maintenance > Existing Faults shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— END OF TASK —————

ARO 001-010; ARO 011-013 PRE SB 777-46-0066

846. 46-160 Fault Code (OBEDS Detects Expired or Missing OAS Certificate) Shows - Fault Isolation

A. Description

- (1) This task gives the steps to correct ONS Fault Code 46-160.
 - (a) The fault text code for 46-160 is: OBEDS detects expired or missing OAS certificate.
- (2) This fault shows when this condition is present:
 - (a) An OBEDS internal function found no certificate from OAS.
 - (b) The certificate has expired.

NOTE: The certificate can refer to the airplane certificate, command certificate, crate certificate, SSL certificate, or part certificate.

B. Possible Causes

- (1) Software certificates.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-160 (OBEDS Detects Expired or Missing OAS Certificate) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-160 (OBEDS Detects Expired or Missing OAS Certificate) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credentials, then do the corrective action specified in that task.

E. Repair Confirmation

ARO 001-010

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

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- (2) When the selection Extended Maintenance > ONS Maintenance > Existing Faults shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— END OF TASK —————



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ARO 001-010; ARO 011-013 PRE SB 777-46-0066

847. 46-161 Fault Code (OBEDS Operational Error Detected) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-161 shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > NFS.
- (2) This fault shows when this condition is present:
 - (a) An OBEDS internal function found no certificate from OAS.
 - (b) The certificate has expired.

NOTE: The certificate can refer to the airplane certificate, command certificate, crate certificate, SSL certificate, or part certificate.

B. Possible Causes

- (1) Software certificates.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-161 (OBEDS Operational Error Detected) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-161 (OBEDS Operational Error Detected) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (2) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credentials, then do the corrective action specified in that task.

E. Repair Confirmation

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— **END OF TASK** —————

848. 46-162 Fault Code (OBEDS Cannot Authenticate Ground Server Connection) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-162 shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > NFS.
- (2) This fault shows when one, or more, of these conditions is present:
 - (a) The software part 46 NFS OAS AIRLINE CERTS AML is unserviceable.



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- (b) The ground server configuration is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-162 (OBEDS Cannot Authenticate Ground Server Connection) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-162 (OBEDS Cannot Authenticate Ground Server Connection) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (2) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credentials, then do the corrective action specified in that task.

E. Repair Confirmation

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— END OF TASK —————

849. 46-165 Fault Code (An OAS AMI Has Failed Validation) - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-165 shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > NFS.
- (2) This fault shows when one, or more, of these conditions is present:
 - (a) Two software parts: 46 NFS OAS AIRLINE CERTS AMI, and 46 NFS OAS AIRLINE CRL AMI, do not agree, and are unserviceable when in service at the same time.
 - (b) The ground server configuration is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-165 (An OAS AMI Has Failed Validation) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-165 (An OAS AMI Has Failed Validation) shows, then do the Fault Isolation Procedure below.



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D. Fault Isolation Procedure

- (1) The software parts that follow can be unserviceable. Follow your airline's policy to report this event.
 - 46 NFS OAS AIRLINE CERTS AMI
 - 46 NFS OAS AIRLINE CRL AMI
- (a) If new software parts are made and furnished, then install the two parts (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) If fault code 46-165 does not show, then you corrected the problem.
 - 2) If fault code 46-165 shows again, then continue.
- (2) Do this task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with the configuration, then do the corrective action that follows.
 - 1) Install the correct NFS software parts, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the same software installation again, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (c) Do a check of NFS messages, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If fault code 46-165 does not show, then you corrected the problem.

E. Repair Confirmation

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— END OF TASK —————

852. 46-167 Fault Code (The OBEDS Data in the EXCOMM AMI Fails Validation) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-167 shows on the NFS MESSAGES page.
 - (a) The fault code text for 46-167 is: The OBEDS Data in the EXCOMM AMI Fails Validation.
- (2) This fault shows when the software part ONS EXCOMM AMI is unserviceable.
 - (a)

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - (b) If NFS1 shows, but fault code 46-167 does not show, then the fault was intermittent.
 - (c) If fault code 46-167 shows, then do the Fault Isolation Procedure that follows.

D. Fault Isolation Procedure

- (1) Install the ONS EXCOMM AMI software part from the MSD, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (a) If fault code 46-167 does not show, then you corrected the problem.
 - (b) If fault code 46-167 shows again, then continue.



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- (2) The software part that follows can be unserviceable. Follow your airline's policy to report this event.

- ONS EXCOMM AMI

- (a) If a new software part is made and furnished, then do the installation (Network File Server Software Installation, AMM TASK 46-13-01-470-801).

- 1) If fault code 46-167 does not show, then you corrected the problem.

E. Repair Confirmation

ARO 001-010

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

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- (2) When the selection Extended Maintenance > ONS Maintenance > Existing Faults shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

END OF TASK

ARO 001-010; ARO 011-013 PRE SB 777-46-0066

853. 46-281 Fault Code (NO_TAIL_FOR_PPPOE_CREDENTIALS) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-281 shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES > NFS.
- (2) This fault shows when these two conditions occur:
NOTE: The first condition can cause the second condition.
 - (a) The aircraft tail identification (ID) is unserviceable.
 - (b) The authentication credential for the network extension device (NED) is unserviceable.
 - 1) The NED can be an internal function of the server, or another LRU.
 - 2) The NED uses a protocol identified as point-to-point over Ethernet (PPPoE).

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-281 (NO TAIL FOR PPPoE CREDENTIALS) does not show, then the fault was intermittent. No action is necessary.
 - (b) If Fault Code 46-281 (NO TAIL FOR PPPoE CREDENTIALS) shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

ARO 001-004

- (1) Do a check of the TAIL ID using the captain's, and first officer's EFB. This is the task: (TAIL ID Check, AMM TASK 46-11-03-860-805).

NOTE: The TAIL ID information is recorded in flash memory of the left, and right EFB display units. The two tail ID settings must agree.

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ARO 001-004 (Continued)

- (a) If you find a problem then set the tail ID as specified in that task.

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- (2) Make sure that the EFB EU-L to NFS communication is serviceable, (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If you find a problem, make sure the EFB software is serviceable, (Electronic Unit - Software Check, AMM TASK 46-11-03-860-803).
 - 1) If fault code 46-281 does not show, then you corrected the problem.
 - 2) If fault code 46-281 shows again, then continue.
- (3) Install a serviceable software part, NFS EXCOMM AMI, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (a) If fault code 46-281 does not show, then you corrected the problem.
 - (b) If fault code 46-281 shows again, then continue.
- (4) The software part that follows can be unserviceable. Follow your airline's policy to report the problem.
 - NFS EXCOMM AMI
 - (a) If a new software part is made and furnished, then do the installation (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) If fault code 46-281 does not show, then you corrected the problem.

E. Repair Confirmation

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— END OF TASK —————

857. 46-153 Fault Code (OAS_NON_EXIST_KEY_REQST) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-153 shows on the NFS MESSAGES page.
 - (a) The fault code can show in the Fault Details box, when you set the ONS maintenance browser to CONDITION MONITORING > NFS > NFS MESSAGES.
- (2) This fault shows when this condition is present:
 - (a) The AIRLINE AMI LSAP is missing or unserviceable.
 - (b) The onboard authentication service (OAS) received a network request to use digital security keys that do not exist.

NOTE: The first condition can cause the second condition. The AIRLINE AMI part disables, and masks OAS functions. OAS is not used on 777.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Fault Code 46-153 (OAS_NON_EXIST_KEY_REQST) does not show, then the fault was intermittent. No action is necessary.

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- (b) If Fault Code 46-153 (OAS_NON_EXIST_KEY_REQST) shows, then do the Fault Isolation Procedure that follows.

D. Fault Isolation Procedure

- (1) Install the AIRLINE AMI software part from the MSD, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (a) If fault code 46-153 does not show, then you corrected the problem.
 - (b) If fault code 46-153 shows again, then continue.
- (2) The software part that follows can be unserviceable. Follow your airline's policy to report this event.
 - AIRLINE AMI
 - (a) If a new software part is made and furnished, then do the installation (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) If fault code 46-153 does not show, then you corrected the problem.
 - 2) If fault code 46-153 shows again, then continue.
- (3) Do a check of the ONS software configuration, (Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804).
 - (a) If you find a problem, then do the software part installation (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) If fault code 46-153 does not show again, then you corrected the problem.

E. Repair Confirmation

- (1) When the Fault Results page (CONDITION MONITORING > NFS > NFS MESSAGES) shows no messages, then the NFS is serviceable.

————— END OF TASK —————

ARO 011-013 PRE SB 777-46-0066

860. 46-003 Fault Code (EEMU~NFS1 ETHERNET BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > EEMU shows fault code 46-003.
 - (a) The fault data for 46-003 is: EEMU~NFS1 ETHERNET BUS FAIL.
- (2) The NFS shows this fault when Ethernet communication between the enhanced expansion module (EEMU), and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009.
- (4) Enhanced expansion module, M15671.

C. Related Data

- (1) WDM 46-13-11
- (2) WDM 46-21-11.

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D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > EEMU.
 - 1) If EEMU does not show, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > EEMU shows, but does not show code 46-003, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-003 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > Ethernet (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection EEMU shows the status: DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If End Connection EEMU shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	17	C46602	MAINT ACCESS TERM

- (a) If you closed the breaker, do a check of ONS Existing Faults, (AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > EEMU does not show, then you corrected the problem.
 - 2) If Existing Faults > EEMU shows, but does not show code 46-003, then you corrected the problem.
 - 3) If EEMU shows fault code 46-003, then continue.
- (2) Do this check of the wiring:
 - (a) Remove the EEMU. This is the task: (MAT Enhanced Electronic Modular Unit - Removal, AMM TASK 45-11-05-000-803).
 - (b) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).



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E/E Bay to Flight Deck			
E4-2	M46009, NFS, E4-2		M15671, EEMU, P18
	DM46009AB		DM15671
	BB-2	.....	1 0
	BB-4	.....	2 0
	BB-1	.....	3 0
	BB-3	.....	6 0

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (e) Install the EEMU, M15671. This is the task: (MAT Enhanced Electronic Modular Unit - Installation, AMM TASK 45-11-05-400-803).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > EEMU, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > EEMU does not show, then you corrected the problem.
 - (b) If Existing Faults > EEMU shows, but code 46-003 does not show, then you corrected the problem.
 - (c) If EEMU shows fault code 46-003, then continue.
- (4) Install a new client credential for EEMU, (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (5) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > EEMU, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > EEMU does not show, then you corrected the problem.
 - (b) If Existing Faults > EEMU shows, but code 46-003 does not show, then you corrected the problem.
 - (c) If EEMU shows fault code 46-003, then continue.
- (6) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (7) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > EEMU.
 - (a) If EEMU does not show, then you corrected the fault.
 - (b) If fault code 46-003 does not show, then you corrected the fault.
 - (c) If the Existing Faults page shows no LRUs, with no fault codes, then the NFS is serviceable.
 - (d) If fault code 46-003 shows, then continue.
- (8) Remove the Ground Proximity Warning Computer (GPWC), M652, and install a serviceable GPWC. Do these tasks: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801, and Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801).



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F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > EEMU, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > EEMU does not show, then you corrected the problem.
 - (b) If Existing Faults > EEMU does not show code 46-003, then you corrected the problem.
 - (c) If Existing Faults > EEMU shows fault code 46-003, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > EEMU, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU EEMU does not show, then you corrected the fault.
 - (b) If Existing Faults > EEMU shows, but does not show code 46-003, then you corrected the problem.
NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

861. 46-021 Fault Code (OAS CERTIFICATE MISMATCH Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-021.
 - (a) The fault data for 46-021 is: OAS CERTIFICATE MISMATCH.
- (2) The NFS can show this fault when a certificate for operationally approved software (OAS) does not agree, or is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

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- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-021, then the fault was intermittent.
 - 3) If Fault Code 46-021 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Verify the configuration of the network file server, M46009. This is the task: (Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804).
 - (a) If you find a problem with the configuration, then do these steps:
 - 1) Install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If Fault Code 46-021 does not show, then you corrected the fault.
 - (c) If Fault Code 46-021 shows, then continue.
- (3) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) Make sure you do the steps to generate a credential signing request (CSR), and install the new airplane keys.
- (4) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-021.
 - 1) If 46-021 does not show, then you corrected the fault.

————— END OF TASK —————

862. 46-022 Fault Code (EXPIRED AIRPLANE CERTIFICATE IN RADIUS CHAIN Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-022.
 - (a) The fault data for 46-022 is: EXPIRED AIRPLANE CERTIFICATE IN RADIUS CHAIN.
- (2) This fault shows when the software part signing certificate has expired, or is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.



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- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-022, then the fault was intermittent.
 - 3) If Fault Code 46-022 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) Make sure you do the steps to generate a credential signing request (CST), and install the new airplane keys.
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-022.
 - 1) If 46-022 does not show, then you corrected the fault.

————— END OF TASK —————

863. 46-023 Fault Code (AIRPLANE CERTIFICATE EXPIRING SOON Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-023.
 - (a) The fault data for 46-038 is: AIRPLANE CERTIFICATE EXPIRING SOON.
- (2) This fault shows when the software part signing certificate will expire within 30 days, it is still serviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-023, then the fault was intermittent.
 - 3) If Fault Code 46-023 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) Make sure you do the steps to generate a credential signing request (CSR), and install the new airplane keys.



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- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-023.
 - 1) If 46-023 does not show, then you corrected the fault.

— END OF TASK —

864. 46-027 Fault Code (AIRPLANE DATA DOES NOT MATCH SECURITY CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-027.
 - (a) The fault data for 46-027 is: AIRPLANE DATA DOES NOT MATCH SECURITY CERTIFICATE.
- (2) This fault shows when the data recorded on the ONS airplane identification page, and one or more security certificates, do not agree.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-027, then the fault was intermittent.
 - 3) If Fault Code 46-027 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do a check of the airplane identification data, (Onboard Network System Aircraft Identification Check, AMM TASK 46-13-00-860-801).
 - (a) If you find a problem, then correct the airplane identification data.
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If Fault Code 46-027 does not show, then you corrected the fault.
 - (c) If Fault Code 46-027 shows, then continue.
- (3) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) Make sure you do the steps to generate a credential signing request (CSR), and install the new airplane keys.



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- (4) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-027.
 - 1) If 46-027 does not show, then you corrected the fault.

————— END OF TASK —————

865. 46-028 Fault Code (EXPIRED CRATE SIGNING CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-028.
 - (a) The fault data for 46-028 is: EXPIRED CRATE SIGNING CERTIFICATE.
- (2) This fault shows when one of these conditions is present:
 - (a) An OBEDS internal function found no certificate from OAS.
 - (b) The crated installation file is unserviceable.
 - (c) The certificate has expired, or is unserviceable.

NOTE: The certificate can refer to the airplane certificate, command certificate, crate certificate, SSL certificate, or part certificate.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-028, then the fault was intermittent.
 - 3) If Fault Code 46-028 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration this software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS AMI, then install a new LSAP, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-028.
 - 1) If 46-028 does not show, then you corrected the fault.

————— END OF TASK —————

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866. 46-029 Fault Code (EXPIRED VPN/TLS CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-029.
 - (a) The fault data for 46-029 is: EXPIRED VPN/TLS CERTIFICATE.
- (2) This fault shows when one of these conditions is present:
 - (a) The virtual private network (VPN) certificate has expired, or is unserviceable.
 - (b) The transport layer security (TLS) certificate has expired, or is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-029, then the fault was intermittent.
 - 3) If Fault Code 46-029 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration this software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS AMI, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-029.
 - 1) If 46-029 does not show, then you corrected the fault.

————— END OF TASK —————

867. 46-030 Fault Code (EXPIRED COMMAND SIGNING CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-030.
 - (a) The fault data for 46-030 is: EXPIRED COMMAND SIGNING CERTIFICATE.
- (2) This fault shows when this condition is present:
 - (a) The command signing certificate (CSR) has expired, or is unserviceable.



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B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-030, then the fault was intermittent.
 - 3) If Fault Code 46-030 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration this software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS AMI, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-030.
 - 1) If 46-030 does not show, then you corrected the fault.

————— END OF TASK —————

868. 46-031 Fault Code (EXPIRED SOFTWARE PART SIGNING CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-031.
 - (a) The fault data for 46-031 is: EXPIRED SOFTWARE PART SIGNING CERTIFICATE.
- (2) This fault shows when the software part signing certificate has expired, or is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.

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- 2) If NFS1 does not show Fault Code 46-031, then the fault was intermittent.
- 3) If Fault Code 46-031 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration of the software part: 46 NFS OAS AIRLINE CERTS UMS, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS UMS, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-031.
 - 1) If 46-031 does not show, then you corrected the fault.

————— END OF TASK —————

869. 46-032 Fault Code (EXPIRED GATELINK CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-032.
 - (a) The fault data for 46-032 is: EXPIRED GATELINK CERTIFICATE.
- (2) This fault shows when the software part signing certificate has expired, or is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-032, then the fault was intermittent.
 - 3) If Fault Code 46-032 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration of the software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS AMI, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.



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- (b) If NFS1 shows, then select NFS1 and look for fault code 46-032.
 - 1) If 46-032 does not show, then you corrected the fault.

END OF TASK

870. 46-034 Fault Code (EXPIRED SECURITY TRUST ANCHORS Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-034.
 - (a) The fault data for 46-034 is: EXPIRED SECURITY TRUST ANCHORS.
- (2) This fault shows when the specified software part has expired, or is unserviceable.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-034, then the fault was intermittent.
 - 3) If Fault Code 46-034 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration of the software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS AMI, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-034.
 - 1) If 46-034 does not show, then you corrected the fault.

END OF TASK

871. 46-035 Fault Code (EXPIRED AIRLINE CERTIFICATE AUTHORITY CERTIFICATE Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-035.
 - (a) The fault data for 46-035 is: EXPIRED AIRLINE CERTIFICATE AUTHORITY CERTIFICATE.
- (2) This fault shows when the authority certificate has expired, or is unserviceable.



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B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-035, then the fault was intermittent.
 - 3) If Fault Code 46-035 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration of the software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS UMS, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-035.
 - 1) If 46-035 does not show, then you corrected the fault.

————— END OF TASK —————

872. 46-036 Fault Code (AIRLINE CA CERT WILL EXPIRE WITHIN 30 DAYS OR LESS Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-036.
 - (a) The fault data for 46-036 is: AIRLINE CA CERT WILL EXPIRE WITHIN 30 DAYS OR LESS.
- (2) This fault shows when the airline CA certificate will expire, or become unserviceable, in 30 days or less.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.



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- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-036, then the fault was intermittent.
 - 3) If Fault Code 46-036 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration of the software part: 46 NFS OAS AIRLINE CERTS AMI, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS UMS, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-036.
 - 1) If 46-036 does not show, then you corrected the fault.

————— END OF TASK —————

873. 46-037 Fault Code (NFS-1 UPDOWN SERVICE FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when onboard network server (ONS) Existing Faults for NFS1 shows Fault Code 46-037.
 - (a) The fault data for 46-037 is: NFS-1 UPDOWN SERVICE FAIL.
- (2) The NFS causes this fault code when an internal process named uplink-downlink service (UDS) is unserviceable.
 - (a) Typically, an ONS client uses UDS to send data to the network file server (NFS).
 - (b) UDS can also be part of the process to select a file for transmission to an off-airplane destination.

B. Possible Causes

- (1) Airplane credentials
- (2) Network File Server, M46009.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If Fault Code 46-037 does not show, then the fault was intermittent. No action is necessary.

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- 3) If Fault Code 46-037 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If Fault Code 46-037 does not show, then the fault was intermittent. No action is necessary.
 - 3) If Fault Code 46-037 shows, then do the Fault Isolation Procedure below.
 - (3) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credential, then do these steps:
 - 1) Do the corrective action specified in the AMM task.
 - 2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults.
 - 3) Look for NFS1.
 - a) If NFS1 shows, then select NFS1 and look for 46-037.
 - b) If NFS1 does not show, then you corrected the fault.
 - (b) If you do not find a problem with the credential, then continue.
 - (4) Remove the network file server, M46009, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults.
 - (b) Look for NFS1.
 - 1) If NFS1 shows, then select NFS1 and look for 46-037.
 - a) If 46-037 does not show, then you corrected the fault.
 - 2) If NFS1 does not show, then you corrected the fault.

————— END OF TASK —————

874. 46-039 Fault Code (The TWLU data in the EXCOMM AMI fails validation Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-039.
 - (a) The fault data for 46-039 is: The TWLU data in the EXCOMM AMI fails validation.

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- (2) This fault code, and fault code 46-152 (NetManager AMI has failed validation), can show at the same time.
 - (a) If this occurs, the two fault codes can refer to the same problem.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-039, then the fault was intermittent.
 - 3) If Fault Code 46-039 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the NFS software configuration, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with airline or operator-specified software, then follow your airline's policy to report this condition.
 - (b) If you find a problem with the software configuration, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-039.
 - 1) If 46-039 does not show, then you corrected the fault.

————— END OF TASK —————

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875. 46-040 Fault Code (The cellular data in the EXCOMM AMI Fails validation Message) Shows - Fault Isolation`

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-040.
 - (a) The fault data for 46-040 is: The cellular data in the EXCOMM AMI fails validation.
- (2) This fault code, and fault code 46-152 (NetManager AMI has failed validation), can show at the same time.
 - (a) If this occurs, the two fault codes can refer to the same problem.

B. Possible Causes

- (1) Software.

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C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
 - 2) If NFS1 does not show Fault Code 46-040, then the fault was intermittent.
 - 3) If Fault Code 46-040 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the NFS software configuration, (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with airline or operator-specified software, then follow your airline's policy to report this condition.
 - (b) If you find a problem with the software configuration, then install the correct software for NFS, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.
 - (b) If NFS1 shows, then select NFS1 and look for fault code 46-040.
 - 1) If 46-040 does not show, then you corrected the fault.

————— END OF TASK —————

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876. 46-041 Fault Code (EXPIRED CERTIFICATE REVOCATION LIST Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NFS1 shows fault code 46-041.
 - (a) The fault data for 46-041 is: EXPIRED CERTIFICATE REVOCATION LIST.
- (2) This fault shows when one or more AMI software parts is unserviceable.
 - Airplane AMI
 - Airline AMI
 - CRL AMI.

B. Possible Causes

- (1) Software.

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults for NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.

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- 1) If NFS1 does not show, then the fault was intermittent. No action is necessary.
- 2) If NFS1 does not show Fault Code 46-041, then the fault was intermittent.
- 3) If Fault Code 46-041 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Install the fault-specified ONS AMI software part from the MSD, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - Airplane AMI
 - Airline AMI
 - CRL AMI.
- (a) Make sure you do the installation check specified in that task.
 - 1) If fault code 46-167 does not show, then you corrected the problem.
 - 2) If fault code 46-167 shows again, then continue.
- (2) The software part found on the MSD can be unserviceable. Follow your airline's policy to report this event.
 - Airplane AMI
 - Airline AMI
 - CRL AMI.
- (a) If a new software part is made and furnished, then do the installation (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) If fault code 46-167 does not show, then you corrected the problem.

E. Repair Confirmation

- (1) When the selection CONDITION MONITORING > NFS > NFS MESSAGES shows no NFS1 store, with no NFS messages, then the NFS is serviceable.

————— END OF TASK —————

877. 46-043 Fault Code (NED-DG~NFS1 ETHERNET BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NED-DG shows fault code 46-043.
 - (a) The fault data for 46-043 is: NED-DG~NFS1 ETHERNET BUS FAIL.
- (2) The NFS shows this fault when Ethernet communication between the network extension device-domain guard (NED-DG), and port 11 of the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009
- (4) Network extension device, M46010.

C. Related Data

- (1) WDM 46-13-11.



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D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG.
 - 1) If NED-DG does not show, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > NED-DG shows, but does not show code 46-043, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-043 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > Ethernet (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection NED-DG shows the status: DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If End Connection NED-DG shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - 2) If Existing Faults > NED-DG shows, but does not show code 46-043, then you corrected the problem.
 - 3) If NED-DG shows fault code 46-043, then continue.
- (2) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG
B	27	C46411	NETWORK FILE SERVER



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring:

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- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010, (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
- (b) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).

E/E BAY			
E4-2	M46009, NFS		M46010, NED-DG
	DM46009AB		DM46010B
	LL-1	.....	1-2 0
	LL-3	.....	1-4 0
	LL-2	.....	1-1 0
	LL-4	.....	1-3 0

- (d) Install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
 - (e) Connect the electrical connector, DM46010B to the NED-DG M46010, (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (4) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
---	---	C46414	NED-DG
B	27	C46411	NETWORK FILE SERVER

- (a) Allow approximately five minutes for the NFS to reboot.
- (5) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-043, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-043, then continue.
- (6) Install a new client credential for NED-DG, (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (7) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-043, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-043, then continue.
- (8) Remove the NED-DG, M46010, and install a serviceable NED-DG. Do these tasks: (Network Extension Device Removal, AMM TASK 46-13-02-000-801, and Network Extension Device Installation, AMM TASK 46-13-02-400-801).
-).
- (9) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG.



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- (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
- (b) If Existing Faults > NED-DG shows, but does not show code 46-043, then you corrected the problem.
- (c) If NED-DG shows fault code 46-043, then continue.
- (10) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-043, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-043, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU NED-DG does not show, then you corrected the fault.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-043, then you corrected the problem.
NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

878. 46-045 Fault Code (AIMS-L~NFS1 'GP#1' BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-L shows fault code 46-045.
 - (a) The fault data for 46-045 is: AIMS-L~NFS1 'GP#1' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the (AIMS-L) general purpose bus #1, and the network file server (NFS) is unserviceable.

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B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - 1) If AIMS-L does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-045, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-045 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-L shows the status: DOWN, then do: Fault Isolation Procedure - GP#1 Bus Fail, that follows.
 - (b) If End Connection AIMS-L shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#1 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-045, then you corrected the problem.
 - 3) If AIMS-L shows fault code 46-045, then continue.



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DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Isolate the GP#1-L bus at the AIMS-L cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).
- (d) Remove the left satellite data unit, SDU-LM23106. This is the task: (Satellite Data Unit Removal, AMM TASK 23-15-10-000-801).
- (e) Remove the GPWC, M34004. To remove it, do this task: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801).

E/E BAY			
E4-2	M46009, NFS, E4-2		M31101, AIMS-L, E3-1
	DM46009AA		D6618
	G10	.....	23
	H10	.....	24
			0
			0

- (g) If you find a problem with the wiring, then repair the wiring.
 - (h) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
 - (i) Re-connect the GP#1-L bus at the AIMS-L cabinet, M31101, at connector D6618.
 - (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
 - (k) Re-install the SDU-L, M23106. This is the task: (Satellite Data Unit Installation, AMM TASK 23-15-10-400-801).
 - (l) Re-install the GPWC, M34004. To install it, do this task: (Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-045, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-045, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

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- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-045, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-045, then continue.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-045, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-045, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-L does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-045, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

879. 46-046 Fault Code (AIMS-L~NFS1 `GP#3` BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-L shows fault code 46-046.
 - (a) The fault data for 46-046 is: AIMS-L~NFS1 'GP#3' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the (AIMS-L) general purpose bus #3, and the network file server (NFS) is unserviceable.

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B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - 1) If AIMS-L does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-046, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-046 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-L shows the status: DOWN, then do: Fault Isolation Procedure - GP#3 Bus Fail, that follows.
 - (b) If End Connection AIMS-L shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-046, then you corrected the problem.
 - 3) If AIMS-L shows fault code 46-046, then continue.



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DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the GP#3 bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Isolate the GP#3-L bus at the AIMS-L cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-R, N46202. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).
- (d) Remove transceiver WXR-L, M34116. This is the task: (WXR Transceiver Removal, AMM TASK 34-43-02-000-801).
- (e) Remove ground proximity warning computer (GPWC), M34004. This is the task: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801).
- (f) Remove ATC-L transponder, M34107. This is the task: (ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801).
- (g) Remove the left satellite data unit, SDU-L, M23106. This is the task: (Satellite Data Unit Removal, AMM TASK 23-15-10-000-801).

E/E BAY

	M46009, NFS, E4-2	M31101, AIMS-L, E3-1	
E4-2	DM46009AA	D6618	
	D11	51	0
	E11	52	0

- (i) If you find a problem, then repair the wiring.
- (j) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (k) Re-connect the GP#3-L bus at the AIMS-L cabinet, M31101, at connector D6618.
- (l) Re-install EFB EU-R, N46202. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (m) RE-install transceiver WXR-L, M34116. This is the task: (WXR Transceiver Installation, AMM TASK 34-43-02-400-801).
- (n) Re-install the GPWC, M34004. To install it, do this task: (Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801)
Re-install the ATC-L transponder, M34107. This is the task: (ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801).
- (o) Re-install the SDU-L, M23106. This is the task: (Satellite Data Unit Installation, AMM TASK 23-15-10-400-801).

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ARO 001-010; ARO 011-013 PRE SB 777-46-0066

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- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-046, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-046, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-046, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-046, then continue.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-046, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-046, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-L does not show, then you corrected the fault.



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- (b) If Existing Faults > AIMS-L shows, but does not show code 46-046, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

880. 46-047 Fault Code (AIMS-L~NFS1 `GP#4` BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-L shows fault code 46-047.
 - (a) The fault data for 46-047 is: AIMS-L~NFS1 'GP#4' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the (AIMS-L) general purpose bus #4, and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - 1) If AIMS-L does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-047, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-047 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-L shows the status: DOWN, then do: Fault Isolation Procedure - GP#4 Bus Fail, that follows.
 - (b) If End Connection AIMS-L shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.



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ARO 011-013 PRE SB 777-46-0066 (Continued)

E. Fault Isolation Procedure - GP#4 Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	12	C31609	AIMS L-1
B	13	C31611	AIMS L-2
B	14	C31617	AIMS L-3
B	15	C31619	AIMS L-4

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- 1) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-047, then you corrected the problem.
 - 3) If AIMS-L shows fault code 46-047, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the GP#4 bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Isolate the GP#4-L bus at the AIMS-L cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-L, N46102. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).

E/E BAY

E4-2	M46009, NFS	M31101, AIMS-L, E3-1		
	DM46009AA	D6618		
	D12	53		0
	E12	54		0

- (e) If you find a problem with the wiring, then repair the wiring.
- (f) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (g) Re-connect the GP#4-L bus at the AIMS-L cabinet, M31101, at connector D6618.

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- (h) Re-install EFB EU-L, N46102. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-047, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-047, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-047, then you corrected the problem.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-047, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-047, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-L does not show, then you corrected the fault.



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- (b) If Existing Faults > AIMS-L shows, but does not show code 46-047, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

END OF TASK

881. 46-048 Fault Code (AIMS-L~NFS1 `IRS` BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-L shows fault code 46-048.
 - (a) The fault data for 46-048 is: AIMS-L~NFS1 'IRS' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the AIMS-L inertial reference bus, and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009.

C. Related Data

- (1) WDM 31-41-31
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - 1) If AIMS-L does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-048, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-048 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-L shows the status: DOWN, then do: Fault Isolation Procedure - IRS Bus Fail, that follows.
 - (b) If End Connection AIMS-L shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.



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ARO 011-013 PRE SB 777-46-0066 (Continued)

E. Fault Isolation Procedure - IRS Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	9	C34427	MMR C

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- 1) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-048, then you corrected the problem.
 - 3) If AIMS-L shows fault code 46-048, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the IRS bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- Isolate the inertial reference bus (IRS) at the AIMS-L cabinet, M31101, at connector D6605.
- Remove WXR-L, M34116, and WXR-R, M34216. Do this task: (WXR Transceiver Removal, AMM TASK 34-43-02-000-801).
- Remove the TCAS, M34006. This is the task: (TCAS Computer Removal, AMM TASK 34-45-01-000-801).
- Remove the EFB EU-L, N46102. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).
- Remove the left ATC/Mode S transponder, M34107. This is the task: (ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801).
- Remove the SDU-L, M23106. This is the task: (Satellite Data Unit Removal, AMM TASK 23-15-10-000-801).

EFFECTIVITY
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E/E BAY			
E4-2	M46009, NFS, E4-2		M31101, AIMS-L, E3-1
	DM46009AA		D6606
	G12		34
	H12		58
			0
			0

- (i) If you find a problem with the wiring, then repair the wiring.
- (j) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (k) Re-connect the IRS bus at the AIMS-L cabinet, M31101, at connector D6605.
- (l) Reinstall WXR-L, M34116, and WXR-R, M34216. Do this task: (WXR Transceiver Installation, AMM TASK 34-43-02-400-801).
- (m) Re-install the TCAS, M34006. This is the task: (TCAS Computer Installation, AMM TASK 34-45-01-400-801
- (n) Re-install EFB EU-R, N46102, and EU-R, N46202. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (o) Re-install the left ATC/Mode S transponder, M34107. This is the task: (ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801).
- (p) Re-install the SDU-L, M23106. This is the task: (Satellite Data Unit Installation, AMM TASK 23-15-10-400-801).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-048, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-048, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-048, then you corrected the problem.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.



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- (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-048, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-048, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-L does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-048, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

882. 46-050 Fault Code (AIMS-R~NFS1 `GP#1` BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-R shows fault code 46-050.
 - (a) The fault data for 46-050 is: AIMS-R~NFS1 'GP#1' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the (AIMS-R) general purpose bus #1, and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network File Server, M46009

C. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.



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- 1) If AIMS-R does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-050, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-050 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
- (a) If End Connection AIMS-R shows the status: DOWN, then do: Fault Isolation Procedure - GP#1 Bus Fail, that follows.
 - (b) If End Connection AIMS-R shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#1 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- 1) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-050, then you corrected the problem.
 - 3) If AIMS-R shows fault code 46-050, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Isolate the GP#1R bus at the AIMS-R Cabinet, M31201, at Connector D6706.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).
- (d) Remove the right ATC/Mode S Transponder, M34207. This is the task: (ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801).
- (e) Remove the GPWC, M34004. This is the task: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801).



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ARO 011-013 PRE SB 777-46-0066 (Continued)

E/E BAY			
E4-2	M46009, NFS, E4-2		M31201, AIMS-R, E2-1
	DM46009AA		D6718
	B10	.....	23
	C10	.....	24
			0
			0

- (g) If you find a problem with the wiring, then repair the wiring.
- (h) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (i) Re-connect the GP#1R bus at the AIMS-R Cabinet, M31201, at Connector D6706.
- (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (k) Re-install the left ATC/Mode S Transponder, M34207. This is the task: (ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801).
- (l) Re-install the GPWC, M34004. This is the task: (Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-050, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-050, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-050, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-050, then continue.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).



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- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-050, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-050, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-R does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-050, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

883. 46-051 Fault Code (AIMS-R~NFS1 'GP#3' BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-R shows fault code 46-051.
 - (a) The fault data for 46-051 is: AIMS-R~NFS1 'GP#3' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the (AIMS-R) general purpose bus #3, and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - 1) If AIMS-R does not show in the LRU column, then the fault was intermittent. No action is necessary.

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- 2) If Existing Faults > AIMS-R shows, but does not show code 46-051, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
- 3) If fault code 46-051 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-R shows the status: DOWN, then do: Fault Isolation Procedure - GP#3 Bus Fail, that follows.
 - (b) If End Connection AIMS-R shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-051, then you corrected the problem.
 - 3) If AIMS-R shows fault code 46-051, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the GP#3 bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Isolate the GP#3 R bus at the AIMS-R cabinet, M31201, at connector D6706, (AMM PAGEBLOCK 31-41-11/401).
- (c) Remove two transponders, ATC-L, M34107, and ATC-R, M34207. This is the task: (ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801).
- (d) Remove two transceivers, WXR-L M34116, and WXR-R M34216. This is the task: (WXR Transceiver Removal, AMM TASK 34-43-02-000-801).
- (e) Remove ground proximity warning computer (GPWC), M34004. This is the task: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801).



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ARO 011-013 PRE SB 777-46-0066 (Continued)

E/E BAY			
E4-2	M46009, NFS, E4-2		M31201, AIMS-R, E2-1
	DM46009AA		D6718
	B11	.....	51
	C11	.....	52
			0
			0

- (g) If you find a problem, then repair the wiring.
- (h) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (i) Re-connect the GP#3 R bus at the AIMS-R cabinet, M31201, at connector D6706, (AMM PAGEBLOCK 31-41-11/401).
- (j) Re-install the ATC-L M34107, and ATC-R M34207 transponders. This is the task: (ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801).
- (k) Re-install two transceivers, WXR-L, M34116 and WXR-R, M34216. This is the task: (WXR Transceiver Installation, AMM TASK 34-43-02-400-801).
- (l) Re-install the GPWC, M34004, (Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801)
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-051, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-051, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-051, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-051, then continue.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.

 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).

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- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-051, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-051, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-R does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-051, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

884. 46-052 Fault Code (AIMS-R~NFS1 `GP#4` BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-R shows fault code 46-052.
 - (a) The fault data for 46-052 is: AIMS-R~NFS1 'GP#4' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the (AIMS-R) general purpose bus #4, and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - 1) If AIMS-R does not show in the LRU column, then the fault was intermittent. No action is necessary.



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- 2) If Existing Faults > AIMS-R shows, but does not show code 46-052, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
- 3) If fault code 46-052 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-R shows the status: DOWN, then do: Fault Isolation Procedure - GP#4 Bus Fail, that follows.
 - (b) If End Connection AIMS-R shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#4 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-052, then you corrected the problem.
 - 3) If AIMS-R shows fault code 46-052, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the GP#4 bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Isolate the GP#4 bus at the AIMS-R cabinet, M31201, at connector D6718.
- (c) Remove EFB EU-R, N46202. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).

E/E BAY

	M46009, NFS, E4-2	M31201, AIMS-R, E2-1	
E4-2	DM46009AA	D6718	
	B12	53	0
	C12	54	0

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- (e) If you find a problem with the wiring, then repair the wiring.
- (f) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (g) Re-connect the GP#4 bus at the AIMS-R cabinet, M31201, at connector D6718.
- (h) Re-install EFB EU-R, N46202. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-052, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-052, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-052, then you corrected the problem.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-052, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-052, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

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- (a) If LRU AIMS-R does not show, then you corrected the fault.
- (b) If Existing Faults > AIMS-R shows, but does not show code 46-052, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

885. 46-053 Fault Code (AIMS-R~NFS1 'IRS' BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-R shows fault code 46-053.
 - (a) The fault data for 46-053 is: AIMS-R~NFS1 'IRS' BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 communication between the AIMS-R inertial reference bus, and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 31-41-32
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - 1) If AIMS-R does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-053, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-053 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection AIMS-R shows the status: DOWN, then do: Fault Isolation Procedure - IRS Bus Fail, that follows.
 - (b) If End Connection AIMS-R shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.



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E. Fault Isolation Procedure - IRS Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

Row	Col	Number	Name
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- 1) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-053, then you corrected the problem.
 - 3) If AIMS-R shows fault code 46-053, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the IRS bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- Isolate the inertial reference bus (IRS) at the AIMS-R cabinet, M31201, at connector D6607.
- Remove WXR-L, M34116, and WXR-R, M34216. Do this task: (WXR Transceiver Removal, AMM TASK 34-43-02-000-801).
- Remove the GPWC, M34004. This is the task: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801).
- Remove the MMR-L, M34410. This is the task: (Receiver for ILS - Removal, AMM TASK 34-31-01-000-801).
- Remove the EFB EU-R, N46202. This is the task: (Electronic Unit Removal, AMM TASK 46-11-03-000-801).
- Remove the right-side ATC/Mode S transponder, M34207. This is the task: (ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801).
- Remove the SDU-L, M23106. This is the task: (Satellite Data Unit Removal, AMM TASK 23-15-10-000-801).

E/E BAY

	M46009, NFS, E4-2	M31201, AIMS-R, E2-1
E4-2	DM46009AA	D6706
	G5	34 0
	H5	58 0

EFFECTIVITY
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- (j) If you find a problem with the wiring, then repair the wiring.
- (k) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (l) Re-connect the IRS bus at the AIMS-R cabinet, M31201, at connector D6607.
- (m) Reinstall WXR-L, M34116, and WXR-R, M34216. Do this task: (WXR Transceiver Installation, AMM TASK 34-43-02-400-801).
- (n) Re-install the GPWC, M34004. This is the task: (Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801).
- (o) Re-install the MMR-L, M34410. This is the task: (Receiver for ILS - Installation, AMM TASK 34-31-01-400-801).
- (p) Re-install EFB EU-R, N46102. This is the task: (Electronic Unit Installation, AMM TASK 46-11-03-400-801).
- (q) Re-install the right ATC/Mode S transponder, M34207. This is the task: (ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801).
- (r) Re-install the SDU-L, M23106. This is the task: (Satellite Data Unit Installation, AMM TASK 23-15-10-400-801).
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-053, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-053, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-053, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-053, then continue.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).



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- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-053, then you corrected the problem.
 - (c) If AIMS-R shows fault code 46-053, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-R does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-053, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

886. 46-057 Fault Code (AIMS-L~NFS1 `CMCS C` BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-L shows fault code 46-057.
 - (a) The fault data for 46-057 is: AIMS-L~NFS1 `CMCS C` BUS FAIL.
- (2) The NFS shows this fault when ARINC 429 is unserviceable between communication between the central maintenance computer system (CMCS) center bus, and the network file server (NFS).

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network file server, M46009

C. Related Data

- (1) WDM 45-45-31
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.



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- 1) If AIMS-L does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-057, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-057 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > ARINC 429 (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
- (a) If End Connection CMCS C shows the status: DOWN, then do: Fault Isolation Procedure - CMCS C Bus Fail, that follows.
 - (b) If End Connection CMCS-C shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - CMCS C Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	9	C34427	MMR C

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- 1) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-057, then you corrected the problem.
 - 3) If AIMS-L shows fault code 46-057, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring:

NOTE: You must remove or electrically disconnect all LRUs on the CMCS C bus before you can do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Electrically disconnect or isolate the CMCS center bus at connector D6606, at the left AIMS cabinet, M31101.
- (c) Remove the center Multimode Receiver (MMR), M34610. This is the task: (Receiver for ILS - Removal, AMM TASK 34-31-01-000-801).

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- (d) Remove the center Radio Altimeter (RA), M34312, at shelf E5-3. Do this task: (Radio Altimeter Transceiver Removal, AMM TASK 34-33-01-000-801).
- (e) Remove the GPWC, M34004. To remove it, do this task: (Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801).

E/E BAY			
E4-2	M46009, NFS, E4-2	M31101, AIMS-L, E3-1	
	DM46009AA	D6606	
	G8	51	0
	H8	52	0

- (g) If you find a problem with the wiring, then repair the wiring.
 - (h) Re-install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
 - (i) Re-connect the CMCS center bus at connector D6606, at the left AIMS cabinet, M31101.
 - (j) Re-install the center MMR, M34610. This is the task: (Receiver for ILS - Installation, AMM TASK 34-31-01-400-801).
 - (k) Re-install the center RA, M34312, at shelf E5-3. Do this task: (Radio Altimeter Transceiver Installation, AMM TASK 34-33-01-400-801).
 - (l) Re-install the GPWC, M34004. To install it, do this task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (3) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-057, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-057, then continue.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (5) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
- (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-057, then you corrected the problem.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.



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- (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-057, then you corrected the problem.
 - (c) If AIMS-L shows fault code 46-057, then continue.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-L does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-L shows, but does not show code 46-057, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

887. 46-061 Fault Code (The NED-DG is failed, is in load mode, or has invalid client credentials Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > NED-DG shows fault code 46-061.
 - (a) The fault data for 46-061 is: The NED-DG is failed, is in load mode, or has invalid client credentials Message.
- (2) The NFS shows this fault when Ethernet communication between the network extension device-domain guard (NED-DG), and the network file server (NFS) is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network extension device-domain guard, M46010.
- (4) Network file server, M46009

C. Related Data

- (1) WDM 46-13-11.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.



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- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG.
 - 1) If NED-DG does not show, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > NED-DG shows, but does not show code 46-061, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-061 shows, then continue.
- (2) Using ONS, make your selection: Extended Maintenance > Input Monitoring > NFS > Ethernet (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If End Connection NED-DG shows the status: DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If End Connection NED-DG shows the status: High, Low, Up, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - 2) If Existing Faults > NED-DG shows, but does not show code 46-061, then you corrected the problem.
 - 3) If NED-DG shows fault code 46-061, then continue.
- (2) Make sure the NED-DG load mode switch, S46002, is set to NORMAL.
 - (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
117AL	Main Equipment Center Access Door

 - 1) To find the door, you can refer to (Finding an Access Door or Panel on the Fuselage, AMM TASK 06-41-00-800-801).
 - (b) Set the NED-DG LOAD MODE switch, S46002, to the NORMAL MODE.

NOTE: When the NED-DG is set to load mode, all communication between the MAT and AIMS is unserviceable.
 - (c) If you changed the switch position, then again do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If fault code 46-061 shows, then continue.
- (3) Install a new client credential for NED-DG, (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Again, do a check of Existing Faults > NED-DG.
 - 1) If Existing Faults > NED-DG does not show, then you corrected the problem.



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- 2) If Existing Faults > NED-DG shows, but does not show code 46-061, then you corrected the problem.
- 3) If NED-DG shows fault code 46-061, then continue.
- (4) Do a check of the NED-DG software already installed (Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804, and Network Extension Device Software Check, AMM TASK 46-13-02-720-802).
 - (a) Make sure that all software parts installed on the NED agree with the software specified in your record, as specified by the airline or operator.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (5) Do a check of the Ethernet, and Discrete wiring as follows.
 - (a) Disconnect electrical connector DM46010B from the NED-DG, M46010, (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
 - (b) Remove the NFS, M46009. This is the task: (Network File Server Removal, AMM TASK 46-13-01-000-801-001).

E/E BAY			
E4-2	M46009, NFS	M46010, NED-DG	
	DM46009AB	DM46010B	
	LL-1	1-2	0
	LL-3	1-4	0
	LL-2	1-1	0
	LL-4	1-3	0

- 1) If you find a problem with the Ethernet wiring, then repair the wiring.

E/E BAY-Program Pin Wiring			
STA 453, LBL 99, WL 167	SWITCH, S46002	NED-DG, M46010	
	SWITCH	D46010P	
	3	5	0
	2	15	0
	5	15	TOGGLE SW

- 1) If you find a problem with the toggle switch or discrete wiring, then correct the problem.
- (e) Install the NFS, M46009. This is the task: (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (f) Connect the electrical connector, DM46010B to the NED-DG M46010, (Network Extension Device Installation, AMM TASK 46-13-02-400-801).



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- (6) If you repaired a problem, then again do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-061, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-061, then continue.
- (7) Remove the NED-DG, M46010, and install a serviceable NED-DG. Do these tasks: (Network Extension Device Removal, AMM TASK 46-13-02-000-801, and Network Extension Device Installation, AMM TASK 46-13-02-400-801).
).
- (8) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG.
 - (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-061, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-061, then continue.
- (9) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (10) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117AL	Main Equipment Center Access Door

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (2) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Existing Faults > NED-DG does not show, then you corrected the problem.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-061, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-061, then continue.



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- (3) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

G. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NED-DG, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU NED-DG does not show, then you corrected the fault.
 - (b) If Existing Faults > NED-DG shows, but does not show code 46-061, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

888. 46-064 Fault Code (AIMS-L~NED-DG ETHERNET BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-L shows fault code 46-064.
 - (a) The fault data for 46-064 is: AIMS-L~NED-DG ETHERNET BUS FAIL.
- (2) The NFS shows this fault when Ethernet communication between port 2 of the network extension device-domain guard (NED-DG), and the left Airplane Information Management System (AIMS), cabinet is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network extension device-domain guard, M46010.

C. Related Data

- (1) WDM 46-13-12.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
 - 1) If AIMS-L does not show, then the fault was intermittent.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-064, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-064 shows, then continue.



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E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- 1) If Existing Faults > AIMS-L does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-L shows, but does not show code 46-064, then you corrected the problem.
 - 3) If AIMS-L shows fault code 46-064, then continue.
- (2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring:
- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010, (AMM PAGEBLOCK 46-13-02/401).
 - (b) Disconnect or electrically isolate the Ethernet wiring at electrical connector D6633 from the left AIMS cabinet, M31101, (AMM PAGEBLOCK 31-41-11/401).

E/E BAY			
E3-1, TO STA 453, LBL 99	M31101 AIMS-L	M46010, NED-DG	
	D6633	DM46010B	
	41	2-1	0
	40	2-3	0
	38	2-2	0
	37	2-4	0

- (d) Connect the electrical connector, DM46010B to the NED-DG M46010, (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (e) Re-connect the Ethernet wiring at electrical connector D6633 from the left AIMS cabinet, M31101, (AMM PAGEBLOCK 31-41-11/401).

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- (4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) Allow approximately one minute for the NED-DG to reboot.
- (5) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
- (b) If Existing Faults > AIMS-L shows, but does not show code 46-064, then you corrected the problem.
- (c) If AIMS-L shows fault code 46-064, then continue.
- (6) Install a new client credential for NED-DG, (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (7) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
- (b) If Existing Faults > AIMS-L shows, but does not show code 46-064, then you corrected the problem.
- (c) If AIMS-L shows fault code 46-064, then continue.
- (8) Remove the NED-DG, M46010, and install a serviceable NED-DG. Do these tasks: (Network Extension Device Removal, AMM TASK 46-13-02-000-801, and Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (9) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L.
- (a) If Existing Faults > AIMS-L does not show, then you corrected the problem.
- (b) If Existing Faults > AIMS-L shows, but does not show code 46-064, then you corrected the problem.

F. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-L, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If LRU AIMS-L does not show, then you corrected the fault.
- (b) If Existing Faults > AIMS-L shows, but does not show code 46-064, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— END OF TASK —————

889. 46-065 Fault Code (AIMS-R~NED-DG ETHERNET BUS FAIL Message) Shows - Fault Isolation

A. Description

- (1) Use this task when ONS Existing Faults > AIMS-R shows fault code 46-065.
- (a) The fault data for 46-065 is: AIMS-R~NED-DG ETHERNET BUS FAIL.

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- (2) The NFS shows this fault when Ethernet communication between port 2 of the network extension device-domain guard (NED-DG), and the left AIMS, cabinet is unserviceable.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network extension device-domain guard, M46010.

C. Related Data

- (1) WDM 46-13-12.

D. Initial Evaluation

- (1) Do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, and no fault codes are present.

- (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - 1) If NED-DG does not show, then the fault was intermittent.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-065, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-065 shows, then continue.

E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, do a check of ONS Existing Faults, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - 2) If Existing Faults > AIMS-R shows, but does not show code 46-065, then you corrected the problem.
 - 3) If AIMS-R shows fault code 46-065, then continue.
- (2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG



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DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring:
- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010, (AMM PAGEBLOCK 46-13-02/401).
 - (b) Disconnect or electrically isolate the Ethernet wiring at electrical connector D5994J from the right AIMS cabinet, M31201, (AMM PAGEBLOCK 31-41-11/401).

E/E BAY			
E2-1, TO STA 453, LBL 99	M31201 AIMS-R	M46010, NED-DG	
	D5994J	DM46010B	
	35	3-1	0
	34	3-3	0
	32	3-2	0
	31	3-4	0

- (d) Connect the electrical connector, DM46010B to the NED-DG M46010, (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
 - (e) Re-connect the Ethernet wiring at electrical connector D5994J from the right AIMS cabinet, M31201, (AMM PAGEBLOCK 31-41-11/401).
- (4) Remove the safety tag and close this circuit breaker:
- Left Power Management Panel, P110**
- | <u>Row</u> | <u>Col</u> | <u>Number</u> | <u>Name</u> |
|------------|------------|---------------|-------------|
| --- | --- | C46414 | NED-DG |
- (a) Allow approximately one minute for the NED-DG to reboot.
- (5) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-065, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-065, then continue.
- (6) Install a new client credential for NED-DG, (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (7) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-065, then you corrected the problem.
 - (c) If NED-DG shows fault code 46-065, then continue.

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- (8) Remove the NED-DG, M46010, and install a serviceable NED-DG. Do these tasks: (Network Extension Device Removal, AMM TASK 46-13-02-000-801, and Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (9) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R.
 - (a) If Existing Faults > AIMS-R does not show, then you corrected the problem.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-065, then you corrected the problem.

F. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > AIMS-R, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If LRU AIMS-R does not show, then you corrected the fault.
 - (b) If Existing Faults > AIMS-R shows, but does not show code 46-065, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— **END OF TASK** —————

890. 46-151 Fault Code (The NED inside the NFS1 is failed or has invalid client credentials) Shows - Fault Isolation

A. Description

- (1) Use this task when Fault Code 46-151 shows on the NFS MESSAGES page.
 - (a) The fault code text for 46-151 is: The NED inside the NFS1 is failed or has invalid client credentials.
- (2) This fault code shows when the internal Network Extension Device (NED) inside the NFS-1 is unserviceable. Fault code 46-151 can show when one or both of these conditions occurs:
 - (a) ARINC 429 receive and transmit communication is unserviceable through the NED-DG.
 - (b) The NFS does not give the status of the Ethernet busses.

B. Possible Causes

- (1) Software
- (2) Network File Server (NFS), M46009

C. Initial Evaluation

- (1) Do this task: (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - (b) If Existing Faults > NFS1 shows, but does not show code 46-151, then the fault is intermittent.
 - 1) Corrective action for other fault codes shown is necessary.
 - (c) If fault code 46-151 shows, then continue.



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D. Fault Isolation Procedure

- (1) Look at the NED indicator lights on the face of the NFS, M46009. If one or more of these conditions exist, then replace the NFS.
 - (a) If the amber LED adjacent to the word FAULT is on, then replace the NFS.
 - (b) If the green LED below to the word LINK is off, replace the NFS.
 - (c) If the green LED above the word ACT is off, then replace the NFS.
 - (d) These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).
 - (e) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show in the LRU column, then the fault was intermittent. No action is necessary.
 - 2) If Existing Faults > NFS1 shows, but does not show code 46-151, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-151 shows, then continue.
- (2) Make new client credential for the NFS. Do this task: (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Set the browser to show Extended Maintenance > ONS Maintenance > Existing Faults > NFS1.
 - 1) If NFS1 does not show in the LRU column, then you corrected the problem.
 - 2) If Existing Faults > NFS1 shows, but does not show code 46-151, then the fault is intermittent.
 - a) Corrective action for other fault codes shown is necessary.
 - 3) If fault code 46-151 shows, then continue.
- (3) Do a check of ONS software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801)
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (4) Replace the NFS. Do these tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

E. Repair Confirmation

- (1) Do a check of Extended Maintenance > ONS Maintenance > Existing Faults > NFS1, (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If NFS1 does not show, then you corrected the fault.

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46-13 TASK 890

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- (b) If Existing Faults > NFS1 shows, but does not show code 46-151, then you corrected the problem.

NOTE: ONS is serviceable only when the Existing Faults page shows no LRUs, with no fault codes present.

————— **END OF TASK** —————

891. Dataload State Problems

A. Description

- (1) Use this task when a data load page shows the words: Load request is rejected due to inappropriate dataload state.
- (2) This on-screen message can show when a data load attempt was rejected, because the NFS did not receive the aircraft-on-ground discrete signal.
 - (a) The system rejects data and software installation when it senses the airplane is not on the ground.
 - (b) The message can show when the air/ground discrete indicates the airplane is in the air when an installation was attempted.
- (3) This problem does not cause a fault log message.

B. Possible Causes

- (1) Wiring
- (2) AIR/GND Relay, K32120
- (3) Network File Server (NFS), M46009

C. Related Data

- (1) WDM 32-09-15
- (2) WDM 46-13-11.

D. Initial Evaluation

- (1) During a software installation, (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801) , the installation failed, and shows the message: Load request is rejected due to inappropriate dataload state.
 - (a) To correct this problem, then do the fault isolation procedure that follows.

E. Fault Isolation Procedure

- (1) Open this circuit breaker:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	13	C32628	AIR/GROUND 1

- (2) Do a check of ONS Input Discretes for the NFS, (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803). These are the steps:
 - (a) Make your selections: Home > Extended Maintenance > Input Monitoring > NFS.
 - (b) In the Confirmation box, make your selection: Continue.
 - (c) Make your selection: Input Discretes.

NOTE: Allow up to 60 seconds for the result to show.

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- (d) Make sure that the row showing discrete 6, AIR/GND RELAY, shows the word OPEN.
- (3) Remove the safety tag and close this circuit breaker:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	13	C32628	AIR/GROUND 1

- (4) Again, do a check of ONS Input Discretes for the NFS, (AMM TASK 46-13-00-720-803). These are the steps:
- (a) Make your selections: Home > Extended Maintenance > Input Monitoring > NFS.
- (b) In the Confirmation box, make your selection: Continue.
- (c) Make your selection: Input Discretes.
- NOTE: Allow up to 60 seconds for the result to show.
- (d) If the row showing discrete 6, AIR/GND RELAY, shows the word GROUND, then the NFS and wiring are serviceable, and the fault is intermittent.
- (e) If the result shows OPEN, or Unavailable, then continue.
- (5) Do the wiring check that follows.
- (a) Remove the NFS, M46009 (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (b) Remove the Air/Ground Relay, K32119 (Weight-on-Wheels (WOW) Card Removal, AMM TASK 32-09-02-000-801).

E/E BAY to P110 Breaker Panel			
	M46009, E4-2	A/G RLY, K32119	
E4-2	DM46009AA	DK32119	
	K3	B1	0

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS, M46009 (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (e) Install the Air/Ground Relay, K32119 (Weight-on-Wheels (WOW) Card Installation, AMM TASK 32-09-02-400-801).
- (6) Repeat the software installation, or the process that caused the message (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801).
- (a) If the software installation is successful, then you corrected the problem.
- (b) If the message shows again, then continue.
- (7) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

F. Repair Confirmation

- (1) When a software installation process is successful, and does not show the message: Load request is rejected due to inappropriate dataload state, then you corrected the problem.

————— END OF TASK —————

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892. Staging Screens Problems

A. Description

- (1) Use this task when the MSD staging, or data load page shows the message that follows:
 - (a) Validity checks failed for a LSAP while attempting to stage to MSD or Dataload.
- (2) This condition does not cause a fault log message.
- (3) This message can show when a loadable software airplane part (LSAP) fails validation. Typically, the message shows during one of these steps:
 - (a) When you stage an LSAP to the Mass Storage Device (MSD).
 - (b) When you data-load an LSAP to an LRU that interfaces with ONS.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) During a software installation or staging, (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801, or Mass Storage Device Software Part Installation, AMM TASK 46-13-00-470-802), the installation failed, and shows the message: Validity checks failed for a LSAP while attempting to stage to MSD or Dataload.
 - (a) To correct this problem, then do the fault isolation procedure that follows.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (2) Repeat the software installation or staging that caused the problem (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801, or Mass Storage Device Software Part Installation, AMM TASK 46-13-00-470-802).
 - (a) If the software installation is successful, then you corrected the problem.
 - (b) If the message shows again, then continue.
- (3) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task:
Network File Server Software Installation, AMM TASK 46-13-01-470-801
- (4) Repeat the software installation or staging that caused the problem (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801, or Mass Storage Device Software Part Installation, AMM TASK 46-13-00-470-802).
 - (a) If the software installation is successful, then you corrected the problem.
 - (b) If the message shows again, then continue.
- (5) Reformat the NFS Operational Drive. Do this task: (Network File Server Drive Reformat Procedure, AMM TASK 46-13-01-070-801).



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- (6) Repeat the software installation or staging that caused the problem (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801, or Mass Storage Device Software Part Installation, AMM TASK 46-13-00-470-802).
 - (a) If the software installation is successful, then you corrected the problem.
 - (b) If the message shows again, then continue.
- (7) Remove the NFS, and install a serviceable NFS. These are the tasks: (Network File Server Removal, AMM TASK 46-13-01-000-801-001, and Network File Server Installation, AMM TASK 46-13-01-400-801-001).

E. Repair Confirmation

- (1) When a software installation, or MSD staging process is successful, and does not show the message: Validity checks failed for a LSAP while attempting to stage to MSD or Dataload, then you corrected the problem.

————— END OF TASK —————

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901. Onboard Network System (ONS) Maintenance Message Table

A. Description

- (1) This task includes the Maintenance Message Numbers, Message Text and the applicable Fault Isolation Manual (FIM) Tasks for the Maintenance Messages that show on the Onboard Network System EXISTING FAULTS Page.
- (2) The EXISTING FAULTS page shows when you select EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > 46 Onboard Network System > FAULTS.

NOTE: Only LRUs/Systems that have an interface with ONS and that have Maintenance Messages show on the ONS EXISTING FAULTS page. If an LRU/System that has an interface with ONS does not have a Maintenance Message, that LRU/System will not show on the EXISTING FAULTS page.

B. Fault Isolation Procedure

- (1) Look in the Table below for the Maintenance Messages that show on the EXISTING FAULTS page. The EXISTING FAULTS page shows when you select EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > 46 Onboard Network System > FAULTS.
- (2) Go to the applicable FIM Task indicated in the "Onboard Network System Maintenance Messages" Table below for the messages that show.

NOTE: Only LRUs/Systems that have an interface with ONS and that have Maintenance Message(s) and Fault Message(s) show on the ONS EXISTING FAULTS page. If an LRU/System that has an interface with ONS does not have a Maintenance Message/Fault Message, that LRU/System will not show on the EXISTING FAULTS page.

Onboard Network System Maintenance Messages

MAINT. MSG No.	MAINTENANCE MESSAGE TEXT	GO TO FIM TASK
46001	ONS NFS-1 FAIL	46-13 TASK 902
46003	EEMU~NFS1 ETHERNET BUS FAIL	46-13 TASK 904
46007	FD PRINTER~NFS1 ETHERNET BUS FAIL	46-13 TASK 905
46008	EU-L~NFS1 ETHERNET BUS FAIL	46-13 TASK 906
46010	EU-R~NFS1 ETHERNET BUS FAIL	46-13 TASK 907
46013	WWU~NFS1 ETHERNET BUS FAIL	46-13 TASK 908
46021	OAS CERTIFICATE MISMATCH	46-13 TASK 909
46022	EXPIRED CERTIFICATE IN OAS UMS	46-13 TASK 910
46023	AIRPLANE CERTIFICATE EXPIRING SOON	46-13 TASK 911
46027	AIRPLANE DATA DOES NOT MATCH SECURITY CERTIFICATE	46-13 TASK 912
46028	EXPIRED CERTIFICATE IN AIRLINE KEYS UMS	46-13 TASK 913
46036	AIRLINE CA CERT WILL EXPIRE WITHIN 30 DAYS OR LESS	46-13 TASK 914
46039	EXCOMM UMS VALIDATION FAIL	46-13 TASK 915
46041	EXPIRED CERTIFICATE REVOCATION LIST	46-13 TASK 916
46043	NED-DG~NFS1 ETHERNET BUS FAIL	46-13 TASK 918
46045	AIMS-L~NFS1 'GP#1' BUS FAIL	46-13 TASK 920

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Onboard Network System Maintenance Messages (Continued)

MAINT. MSG No.	MAINTENANCE MESSAGE TEXT	GO TO FIM TASK
46046	AIMS-L~NFS1 'GP#3' BUS FAIL	46-13 TASK 921
46047	AIMS-L~NFS1 'GP#4' BUS FAIL	46-13 TASK 922
46048	AIM-L~NFS1 'IRS' BUS FAIL	46-13 TASK 923
46050	AIMS-R~NFS1 'GP#1' BUS FAIL	46-13 TASK 925
46051	AIMS-R~NFS1 'GP#3' BUS FAIL	46-13 TASK 926
46052	AIMS-R~NFS1 'GP#4' BUS FAIL	46-13 TASK 927
46053	AIMS-R~NFS1 'IRS' BUS FAIL	46-13 TASK 928
46055	MMR-L~NFS-1 'OUT #3' BUS FAIL	46-13 TASK 930
46057	AIMS-L~NFS1 'CMCS C' BUS FAIL	46-13 TASK 931
46061	The NED-DG is failed, is in load mode, or has invalid client credentials	46-13 TASK 932
46064	AIMS-L~NED-DG ETHERNET BUS FAIL	46-13 TASK 933
46065	AIMS-R~NED-DG ETHERNET BUS FAIL	46-13 TASK 934
46078	SECURITY LOG FULL	46-13 TASK 939
46120	Flight Deck Printer Fault	31-33 TASK 807
46121	Flight Deck Printer Offline	31-33 TASK 808
46147	Insufficient storage space in the ONS MSD for a to-be loaded LSAP	46-13 TASK 943
46150	NFS 1 has a loaded part that fails validity check	46-13 TASK 944
46151	The NED inside the NFS1 is failed or has invalid client credentials	46-13 TASK 945
46159	OBEDS failed to load OAS Certificates and/or private key after 10 minutes	46-13 TASK 946
46160	OBEDS detects expired or missing OAS certificate	46-13 TASK 947
46161	OBEDS operational error detected	46-13 TASK 948
46162	OBEDS cannot authenticate ground server connection	46-13 TASK 949
46165	OAS AIRPLANE UMS FAIL	46-13 TASK 950
46911	WWU is failed or has invalid client credentials	46-13 TASK 951
46914	WWU RF ENABLE~NFS1 DISCRETE FAIL	46-13 TASK 952
46915	WWU WOW DISCRETE FAIL	46-13 TASK 953

————— END OF TASK —————

902. Maintenance Message 46001 (ONS NFS-1 FAIL) - Fault Isolation

A. Description

- (1) Use this task when Maintenance Message 46001 (ONS NFS-1 FAIL) shows on the EXISTING FAULTS page.

NOTE: If possible, for all instances of this Maintenance Message, send the log files to Boeing Engineering.

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B. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46001 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46001 shows, then look for more Maintenance Messages and do the steps that follow.

C. Fault Isolation Procedure

- (1) The Boeing Company recommends that you make a back-up copy of the applicable files from the NFS. This is the Task: Network File Server Log File Check, AMM TASK 46-13-01-800-802.
NOTE: Know and follow your airline or operator's procedure for record retention.
- (2) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) If the Part Number is not correct, then re-install the software. This is the task: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
 - (b) If the Part Number is correct, then continue.
- (3) Do the Network File Server Reimage Procedure, AMM TASK 46-13-01-470-802.
NOTE: This step removes all customer data, file logs, and most software parts from the server. Back up all data as necessary.
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Do the Network File Server Reimage Procedure, AMM TASK 46-13-01-470-802.
NOTE: This step removes all customer data, file logs, and most software parts from the server. Back up all data as necessary.
 - (a) Do the Repair Confirmation at the end of this task.

D. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46001 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46001 still shows, then continue the Fault Isolation Procedure at the subsequent step.

————— END OF TASK —————

904. Maintenance Message 46003 (EEMU~NFS1 ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between the Enhanced Expansion Module (EEMU), and the NFS is unserviceable.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46003.
 - (a) The fault data for Maintenance Message 46003 is: EEMU~NFS1 ETHERNET BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009
- (4) Enhanced Expansion Module Unit (EEMU), M15671

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C. Related Data

- (1) WDM 46-13-11
- (2) WDM 46-21-11

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.
 - (a) If Maintenance Message 46003 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46003 shows, then continue.
- (2) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING> NFS > ETHERNET (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION EEMU shows the status DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If END CONNECTION EEMU shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	17	C46602	MAINT ACCESS TERM

- (a) Do the Repair Confirmation at the end of this task.
- (2) Do the steps that follow to examine the wiring:
 - (a) Remove the EEMU, M15671. This is the task: MAT Enhanced Electronic Modular Unit - Removal, AMM TASK 45-11-05-000-803.
 - (b) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (c) Do this check of the Ethernet Wiring (WDM 46-21-11):

E/E Bay to Flight Deck

NFS, M46009,	EEMU, M15671,
E4-2	P18
DM46009AB	DM15671
pin BB-2	pin 1
pin BB-4	pin 2
pin BB-1	pin 3
pin BB-3	pin 6

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- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the EEMU, M15671. This is the task: MAT Enhanced Electronic Modular Unit - Installation, AMM TASK 45-11-05-400-803.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Examine the Client Credential for the EEMU (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.
- (5) Remove the GPWC, M652, and install a serviceable GPWC. These are the tasks:
 - Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801
 - Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801
 - (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46003 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46003 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

905. Maintenance Message 46007 (FD PRINTER~NFS1 ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) This Maintenance Message shows the interface between the NFS and the Flight Deck Printer is not found. Possible fault indications related to this fault are:
 - (a) You cannot print ONS Reports to the Flight Deck Printer
 - (b) You are not able to print graphics from the EFBs.
- (2) Use this task when Maintenance Message 46007 shows on the EXISTING FAULTS page.

B. Possible Causes

- (1) Wiring
- (2) NFS, M46009
- (3) Flight Deck Printer, M31004

C. Related Data

- (1) WDM 46-13-11



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D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46007 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46007 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Examine the Maintenance Access Terminal (MAT) for active maintenance messages associated with the Flight Deck Printer.
 - (a) If you find active Flight Deck Printer related maintenance messages, then do the applicable FIM Tasks for the messages that show (31-33 TASKS, PAGEBLOCK 31-33-00/201).
 - 1) After you correct the printer related faults, do the Repair Confirmation at the end of this task..
 - (b) If you do not find active Flight Deck Printer related maintenance messages, then continue.
- (2) Do the steps that follow to examine the wiring.
 - (a) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (b) Remove the Flight Deck Printer. This is the task: Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801.
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NFS	FD Printer
DM46009AB	DM31004A
pin CC-1	pin G
pin CC-2	pin G -
pin CC-3	pin H
pin CC-4	pin H -

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. Do this task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the Flight Deck Printer. Do this task: Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the Flight Compartment Printer. These are the tasks:
 - Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801
 - Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801

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- (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46007 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46007 still shows, continue the Fault Isolation Procedure at the subsequent step.
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

906. Maintenance Message 46008 (EU-L~NFS1 ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) This Maintenance Message shows if the interface between the NFS and the Captain's EFB Electronic Unit (EU) is not found. Possible problems related to this fault are:
 - (a) Captain's EFB EU cannot print.
 - (b) Captain's EFB EU is not able to establish a connection to any Ground Servers.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46008.

B. Possible Causes

- (1) Wiring
- (2) NFS, M46009
- (3) Captain's EU, M46102

C. Related Data

- (1) WDM 46-13-11

D. Initial Evaluation

- (1) Do the Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Maintenance Message 46008 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46008 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Examine the Captain's EFB Fault Log Page for Maintenance Messages (46-19 TASK 801).
 - (a) If you find EFB related Maintenance Messages, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the EFB related problems, do the Repair Confirmation at the end of this task.
 - (b) If you do not find EFB related fault messages, then continue.
- (2) Do the steps that follow to examine the wiring:
 - (a) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (b) Remove the Captain's EU. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

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NFS	Captain's EU
DM46009AB	DN46102AA
pin DD-1	pin 17T
pin DD-2	pin 14T
pin DD-3	pin 17TR
pin DD-4	pin 14TR

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the Captain's EU. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the Captain's EU. These are the tasks:
 - Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - Electronic Unit Installation, AMM TASK 46-11-03-400-801
- (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46008 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46008 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

907. Maintenance Message 46010 (EU-R~NFS1 ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when the interface between the NFS and the First Officer (F/O)'s EFB Electronic Unit (EU) is not found. Possible problems related to this fault are:
 - (a) F/O's EFB EU cannot print.
 - (b) F/O's EFB EU is not able to establish a connection to any Ground Servers.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46010.

B. Possible Causes

- (1) Wiring
- (2) NFS, M46009

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- (3) F/O's EU, M46202

C. Related Data

- (1) WDM 46-13-11

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46010 does not show, then the fault was intermittent. No action is necessary.
- (b) If Maintenance Message 46010 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Examine the F/O's EFB Fault Log Page (Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801).
- (a) If you find EFB related Maintenance Messages, then do the applicable FIM Tasks for the messages that show.
- 1) After you correct the EFB related problems, do the Repair Confirmation at the end of this task.
- (b) If you do not find EFB related Maintenance Messages, then continue.
- (2) Do the steps that follow to examine the wiring:
- (a) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Remove the F/O's EU. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NFS	F/O EU
DM46009AB	DN46202AA
pin EE-1	pin 17T
pin EE-2	pin 14T
pin EE-3	pin 17TR
pin EE-4	pin 14TR

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the F/O's EU. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the F/O's EU. These are the tasks:

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- Electronic Unit Removal, AMM TASK 46-11-03-000-801
- Electronic Unit Installation, AMM TASK 46-11-03-400-801
- (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46010 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46010 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

908. Maintenance Message 46013 (WWU~NFS1 ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when the interface between the NFS and the Wireless Wide Area Network Unit (WWU) is not found. Possible problems related to this fault are:
 - (a) Airplane Systems cannot connect to any Ground Servers using Gatelink.
- (2) Use this task when Maintenance Message 46013 shows on the EXISTING FAULTS page.

B. Possible Causes

- (1) Wiring
- (2) NFS, M46009
- (3) Wireless Wide Area Network Unit (WWU), M44630

C. Related Data

- (1) WDM 46-13-11

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46013 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46013 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do the Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801 to find Terminal Wireless LAN Unit (TWLU) related maintenance messages on the EFB Fault Log Page.
 - (a) If you find TWLU related maintenance messages, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the TWLU related problems, do the Repair Confirmation at the end of this task.
 - (b) If you do not find TWLU related maintenance messages, then continue.
- (2) Do the steps that follow to examine the wiring:

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- (a) Remove the NFS. Do this task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Remove the WWU. Do this task: Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801.
- (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Airplane Crown

NFS	WWU
DM46009AB	DM44360B
pin FF-1	pin 1-2
pin FF-2	pin 1-1
pin FF-3	pin 1-4
pin FF-4	pin 1-3

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. Do this task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the WWU. Do this task: Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (4) Remove the WWU, and install a serviceable WWU. Do these tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
- (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46013 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46013 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

909. Maintenance Message 46021 (OAS CERTIFICATE MISMATCH) - Fault Isolation

A. Description

- (1) The NFS can show this Maintenance Message when a Certificate for Operationally Approved Software (OAS) does not agree, or is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46021.

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B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46021 does not show, then the fault was intermittent.
- (b) If Maintenance Message 46021 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Verify the configuration of the NFS, M46009. This is the task: Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804.
 - (a) If you find a problem with the configuration, then install the correct NFS Software: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure that you do the steps to generate a Credential Signing Request (CSR), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46021 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46021 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

910. Maintenance Message 46022 (EXPIRED CERTIFICATE IN OAS UMS) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when the Software Part Signing Certificate has expired, or is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46022.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.



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- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46022 does not show, then the fault was intermittent.
 - 2) If Maintenance Message 46022 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure you do the steps to generate a Credential Signing Request (CST), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this Task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46022 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

911. Maintenance Message 46023 (AIRPLANE CERTIFICATE EXPIRING SOON) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when the Software Part Signing Certificate is serviceable, but it will expire in 30 days or less.
- (2) Use this Task when ONS EXISTING FAULTS shows Maintenance Message 46023.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46023 does not show, then the fault was intermittent.
 - 2) If Maintenance Message 46023 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure that you do the steps to generate a Credential Signing Request (CSR), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46023 does not show, then you corrected the fault.

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- (b) If Maintenance Message 46023 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

**912. Maintenance Message 46027 (AIRPLANE DATA DOES NOT MATCH SECURITY CERTIFICATE) -
Fault Isolation**

A. Description

- (1) This Maintenance Message shows when the data recorded on the ONS Airplane Identification Page does not agree with one or more Security Certificates.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46027.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA System > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46027 does not show, then the fault was intermittent.
 - 2) If Maintenance Message 46027 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do the Onboard Network System Aircraft Identification Check, AMM TASK 46-13-00-860-801.
 - (a) If you find a problem, then correct the Airplane Identification Data.
 - (b) Do the Repair Confirmation at the end of this task.
- (2) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) Make sure that you do the steps to generate a Credential Signing Request (CSR), and install the new airplane keys.
 - (b) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46027 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46027 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————



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913. Maintenance Message 46028 (EXPIRED CERTIFICATE IN AIRLINE KEYS UMS) - Fault Isolation

A. Description

(1) This Maintenance Message shows when one or more of these conditions is present:

- (a) An OBEDS Internal Function found no certificate from OAS.
- (b) The Crated Installation File is unserviceable.
- (c) The certificate has expired, or is unserviceable.

NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.

(2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46028 .

B. Possible Causes

- (1) Software

C. Initial Evaluation

(1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

(a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA System > "46 Onboard Network System" > FAULTS.

- 1) If Maintenance Message 46028 does not show, then the fault was intermittent.
- 2) If Maintenance Message 46028 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

(1) Examine the configuration for this software part: 46 NFS OAS AIRLINE CERTS AMI (Network File Server Software Check, AMM TASK 46-13-01-860-801).

(a) If you find a problem with 46 NFS OAS AIRLINE CERTS AMI, then install a new LSAP (Network File Server Software Installation, AMM TASK 46-13-01-470-801).

(b) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

(1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

(a) If Maintenance Message 46028 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

914. Maintenance Message 46036 (AIRLINE CA CERT WILL EXPIRE IN 30 DAYS OR LESS) - Fault Isolation

A. Description

(1) This Maintenance Message shows when the Airline CA Certificate will expire, or become unserviceable, in 30 days or less.

(2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46036.

B. Possible Causes

- (1) Software

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C. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46036 does not show, then the fault was intermittent.
 - 2) If Maintenance Message 46036 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Examine the configuration of the software part: 46 NFS OAS AIRLINE CERTS AMI (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS UMS, then install the correct software for NFS (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the Repair Confirmation at the end of this Task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46036 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46036 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

915. Maintenance Message 46039 (EXCOMM UMS VALIDATION FAIL) - Fault Isolation

A. Description

- (1) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46039.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46039 does not show, then the fault was intermittent.
 - 2) If Maintenance Message 46039 shows, then do the Fault Isolation Procedure below.



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D. Fault Isolation Procedure

- (1) Examine the NFS Software Configuration (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with airline or operator-specified software, then follow your airline's policy to report this condition.
 - (b) If you find a problem with the software configuration, then install the correct software for NFS (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (c) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46039 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

916. Maintenance Message 46041 (EXPIRED CERTIFICATE REVOCATION LIST) Shows - Fault Isolation

A. Description

- (1) This Maintenance Message shows when one or more AMI Software Parts is unserviceable:
 - (a) Airplane AMI
 - (b) Airline AMI
 - (c) CRL AMI
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46041.
 - (a) The fault data for Maintenance Message 46041 is: EXPIRED CERTIFICATE REVOCATION LIST.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of ONS Existing Faults (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA System > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46041 does not show, then the fault was intermittent.
 - 2) If Maintenance Message 46041 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Install the fault-specified ONS AMI Software Part from the MSD (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - Airplane AMI
 - Airline AMI
 - CRL AMI



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- (a) Make sure you do the installation check specified in the task.
- (b) Do the Repair Confirmation at the end of this task.
- (2) The software part found on the MSD can be unserviceable. Follow your airline's policy to report this event.
 - Airplane AMI
 - Airline AMI
 - CRL AMI
- (a) If a new software part is made and furnished, then install it (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46041 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46041 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

918. Maintenance Message 46043 (NED-DG~NFS1 ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between the Network Extension Device-Domain Guard (NED-DG) and Port 11 of the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46043.
 - (a) The fault data for Maintenance Message 46043 is: NED-DG~NFS1 ETHERNET BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009
- (4) Network Extension Device, M46010

C. Related Data

- (1) WDM 46-13-11

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no LRUs, and no Maintenance Messages are present.
- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.

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- 1) If EXISTING FAULTS does not show Maintenance Message 46043, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46043 shows, then continue.
- (2) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > ETHERNET (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
- (a) If END CONNECTION NED-DG shows the status: DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If END CONNECTION NED-DG shows the status: HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, then do the Repair Confirmation at the end of this task.
- (2) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG
B	27	C46411	NETWORK FILE SERVER



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do the steps that follow to examine the wiring:
- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
 - (b) Remove the NFS, M46009 (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11, WDM 46-13-12):

E/E BAY

NFS, M46009		NED-DG, M46010	
M46009AB		DM46010B	
pin LL-1	.....	pin 1-2	
pin LL-3		pin 1-4	
pin LL-2		pin 1-1	
pin LL-4		pin 1-3	

- 1) If you find a problem, then repair the wiring.

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- (d) Install the NFS, M46009 (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
 - (e) Connect the electrical connector, DM46010B to the NED-DG M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (4) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG
B	27	C46411	NETWORK FILE SERVER

- (a) Allow approximately five minutes for the NFS to reboot.
 - (b) Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (a) Do the Repair Confirmation at the end of this task.
- (6) Remove the NED-DG, M46010, and install a serviceable NED-DG. These are the tasks:
- Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (7) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
- (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
- NOTE:** At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- 1) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 2) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46043 does not show, then you corrected the problem.



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- (b) If Maintenance Message 46043 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

— END OF TASK —

920. Maintenance Message 46045 (AIMS-L~NFS1 'GP#1' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 communication between the (AIMS-L) General Purpose BUS#1, and the NFS is unserviceable.
- (2) Use this task when ONS Existing Faults shows Maintenance Message 46045 .
 - (a) The fault data for Maintenance Message 46045 is: AIMS-L~NFS1 'GP#1' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46045 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46045 still shows, then continue.
 - (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46045 does not show, then you corrected the fault.
 - b) If Maintenance Message 46045 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
 - (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).

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- (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - GP#1 Bus Fail, that follows.
- (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#1 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Maintenance Message 46045 does not show, then you corrected the problem.
 - 2) If Maintenance Message 46045 still shows, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 Bus before you do a continuity check. Use the Wiring Diagram Manual (WDM) to tell which LRUs are on the bus. After the check, then re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#1-L BUS at the AIMS-L Cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove the Left Satellite Data Unit, SDU-LM23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009, E4-2 DM46009AA	AIMS-L, M31101, E3-1 D6618
pin G10	pin 23
pin H10	pin 24

- (g) If you find a problem with the wiring, then repair the connection.
- (h) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (i) Re-connect the GP#1-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.

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- (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (k) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
- (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (m) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - 1) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (d) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46045 does not show, then you corrected the problem.
 - (b) If Maintenance Message 46045 still shows, continue the Fault Isolation Procedure at the subsequent step.
NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

921. Maintenance Message 46046 (AIMS-L~NFS1 'GP#3' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-L) General Purpose BUS #3 and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46046.
 - (a) The fault data for Maintenance Message 46046 is: AIMS-L~NFS1 'GP#3' BUS FAIL.

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B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46046 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46046 still shows, then continue.
- (2) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) If Maintenance Message 46046 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46046 still shows, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - GP#3 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the breaker, then do the Repair Confirmation at the end of this task.



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DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#3 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#3-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove Transceiver WXR-L, M34116. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (e) Remove GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Remove ATC-L Transponder, M34107. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (g) Remove the Left Satellite Data Unit, SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (h) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009,	AIMS-L,
E4-2	M31101, E3-1
DM46009AA	D6618
pin D11	pin 51
pin E11	pin 52

- (i) If you find a problem, then repair the connection.
- (j) Re-install the NFS, M46009. This is the Task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (k) Re-connect the GP#3-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (l) Re-install EFB EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (m) Re-install Transceiver WXR-L, M34116. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
- (n) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801
Re-install the ATC-L Transponder, M34107. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
- (o) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
- (p) Do the Repair Confirmation at the end of this task.

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- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure that the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (e) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46046 does not show, then you corrected the problem.
 - (b) If Maintenance Message 46046 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

922. Maintenance Message 46047 (AIMS-L~NFS1 'GP#4' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-L) General Purpose BUS #4 and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46047.
 - (a) The fault data for Maintenance Message 46047 is: AIMS-L~NFS1 'GP#4' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

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C. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46047 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46047 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46047 does not show, then you corrected the fault.
 - b) If Maintenance Message 46047 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - GP#4 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#4 Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	12	C31609	AIMS L-1
B	13	C31611	AIMS L-2
B	14	C31617	AIMS L-3
B	15	C31619	AIMS L-4

- (a) If you closed the circuit breakers, then do the Repair Confirmation at the end of this Task.



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DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#4 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#4-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-L, N46102. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009,	AIMS-L,
E4-2	M31101, E3-1
DM46009AA	D6618
pin D12	pin 53
pin E12	pin 54

- (e) If you find a problem, then repair the connection.
 - (f) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (g) Re-connect the GP#4-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
 - (h) Re-install EFB EU-L, N46102. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (i) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
- (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
- NOTE:** At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (e) Do the Repair Confirmation at the end of this task.

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- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46047 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46047 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

923. Maintenance Message 46048 (AIMS-L~NFS1 'IRS' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the AIMS-L Inertial Reference Bus and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46048.
 - (a) The fault data for Maintenance Message 46048 is: AIMS-L~NFS1 'IRS' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-31
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) If Maintenance Message 46048 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46048 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.

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- a) If Maintenance Message 46048 does not show, then you corrected the fault.
 - b) If Maintenance Message 46048 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - IRS Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - IRS Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	9	C34427	MMR C

- (a) If you closed the circuit breakers, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do these steps to examine the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the IRS Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the Inertial Reference System (IRS) BUS at the AIMS-L Cabinet, M31101, at connector D6605.
- (c) Remove Weather Radar (WXR)-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (d) Remove the Traffic Alert and Collision Avoidance System (TCAS), M34006. This is the task: TCAS Computer Removal, AMM TASK 34-45-01-000-801.
- (e) Remove the EFB EU-L, N46102. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (f) Remove the Left ATC/Mode S Transponder, M34107. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (g) Remove the SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.



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- (h) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

**NFS, M46009,
E4-2
DM46009AA**

**AIMS-L,
M31101, E3-1
D6606**

pin G12 pin 34
pin H12 pin 58

- (i) If you find a problem, then repair the connection.
- (j) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (k) Re-connect the IRS Bus at the AIMS-L Cabinet, M31101, at connector D6605.
- (l) Re-install WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
- (m) Re-install the TCAS, M34006. This is the task: TCAS Computer Installation, AMM TASK 34-45-01-400-801.
- (n) Re-install EFB EU-R, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (o) Re-install the left ATC/Mode S Transponder, M34107. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
- (p) Re-install the SDU-L, M23106. This is the Task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
- (q) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
- (a) Make sure that 46 NED OPC is serviceable.
- (b) Make sure that 46 NFS OPC is serviceable.
- (c) Make sure the two parts agree with your airline's required software record.
- NOTE:** At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.



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G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46048 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46048 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

925. Maintenance Message 46050 (AIMS-R~NFS1 'GP#1' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-R) General Purpose BUS #1, and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46050.
 - (a) The fault data for Maintenance Message 46050 is: AIMS-R~NFS1 'GP#1' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) If Maintenance Message 46050 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46050 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46050 does not show, then you corrected the fault.
 - b) If Maintenance Message 46050 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.

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- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
- (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - GP#1 Bus Fail, that follows.
- (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#1 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

Row	Col	Number	Name
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#1R Bus at the AIMS-R Cabinet, M31201, at connector D6706.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove the Right ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009,	AIMS-R,
E4-2	M31201, E2-1
DM46009AA	D6718
pin B10	pin 23
pin C10	pin 24

- (g) If you find a problem, then repair the connection.
- (h) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (i) Re-connect the GP#1R Bus at the AIMS-R Cabinet, M31201, at connector D6706.



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- (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (k) Re-install the left ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
- (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (m) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46050 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46050 still shows, continue the Fault Isolation Procedure at the subsequent step.
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

926. Maintenance Message 46051 (AIMS-R~NFS1 'GP#3' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-R) General Purpose BUS #3 and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46051.
 - (a) The fault data for Maintenance Message 46051 is: AIMS-R~NFS1 'GP#3' BUS FAIL.

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B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46051 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46051 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46051 does not show, then you corrected the fault.
 - b) If Maintenance Message 46051 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - GP#3 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.

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DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11).

NOTE: You must remove or electrically disconnect all LRUs on the GP#3 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#3 R Bus at the AIMS-R Cabinet, M31201, at connector D6706 (AMM PAGEBLOCK 31-41-11/401).
- (c) Remove two transponders, Air Traffic Control (ATC)-L, M34107, and ATC-R, M34207. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (d) Remove two transceivers, WXR-L M34116, and WXR-R M34216. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (e) Remove GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009, E4-2 DM46009AA	AIMS-R, M31201, E2-1 D6718
pin B11	pin 51
pin C11	pin 52

- (g) If you find a problem, then repair the connection.
 - (h) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (i) Re-connect the GP#3 R Bus at the AIMS-R Cabinet, M31201, at connector D6706 (AMM PAGEBLOCK 31-41-11/401).
 - (j) Re-install the ATC-L M34107, and ATC-R M34207 Transponders. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
 - (k) Re-install two transceivers, WXR-L, M34116 and WXR-R, M34216. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
 - (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801
 - (m) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

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F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46051 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46051 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

— END OF TASK —

927. Maintenance Message 46052 (AIMS-R~NFS1 'GP#4' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-R) General Purpose BUS #4, and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46052.
 - (a) The fault data for Maintenance Message 46052 is: AIMS-R~NFS1 'GP#4' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11
- (3) SSM 46-13-11



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D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46052 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46052 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related faults, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46052 does not show, then you corrected the fault.
 - b) If Maintenance Message 46052 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - GP#4 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - GP#4 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#4 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install the or connect the LRUs.



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- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#4 Bus at the AIMS-R Cabinet, M31201, at connector D6718.
- (c) Remove EFB EU-R, N46202. This is the Task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009, E4-2 DM46009AA	AIMS-R, M31201, E2-1 D6718
pin B12	pin 53
pin C12	pin 54

- (e) If you find a problem, then repair the connection.
 - (f) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (g) Re-connect the GP#4 Bus at the AIMS-R Cabinet, M31201, at connector D6718.
 - (h) Re-install EFB EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (i) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
- (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
- NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.



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G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46052 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46052 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

———— END OF TASK ————

928. Maintenance Message 46053 (AIMS-R~NFS1 'IRS' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the AIMS-R Inertial Reference Bus and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46053.
 - (a) The fault data for Maintenance Message 46053 is: AIMS-R~NFS1 'IRS' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 31-41-32
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > “46 Onboard Network System” > FAULTS.
 - 1) If Maintenance Message 46053 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46053 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related faults, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46053 does not show, then you corrected the fault.
 - b) If Maintenance Message 46053 still shows, then continue.



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- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - IRS Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - IRS Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the IRS Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install the or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the IRS Bus at the AIMS-R Cabinet, M31201, at connector D6607.
- (c) Remove WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (d) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (e) Remove the MMR-L, M34410. This is the task: Receiver for ILS - Removal, AMM TASK 34-31-01-000-801.
- (f) Remove the EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (g) Remove the Right ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (h) Remove the SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (i) Do this ARINC 429 check (SSM 46-13-11):



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E/E BAY

**NFS, M46009,
E4-2
DM46009AA**

**AIMS-R,
M31201, E2-1
D6706**

pin G5 pin 34
pin H5 pin 58

- (j) If you find a problem with the wiring, then repair the connection.
- (k) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (l) Re-connect the IRS Bus at the AIMS-R Cabinet, M31201, at connector D6607.
- (m) Re-install WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
- (n) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (o) Re-install the MMR-L, M34410. This is the task: Receiver for ILS - Installation, AMM TASK 34-31-01-400-801.
- (p) Re-install EFB EU-R, N46102. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (q) Re-install the Right ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
- (r) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
- (s) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure that the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001



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- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46053 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46053 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

930. Maintenance Message 46055 (MMR-L~NFS1 'OUT #3' BUS FAIL) - Fault Isolation

A. Description

- (1) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46055.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) MMR-L, M34410
- (4) NFS, M46009

C. Related Data

- (1) WDM 46-13-11
- (2) WDM 34-58-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46055 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46055 shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the MMR and ARINC 429.
 - (a) If you find active maintenance messages associated with the MMR and ARINC 429, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46055 does not show, then you corrected the fault.
 - b) If Maintenance Message 46055 still shows, then continue.



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- (b) If there are no active maintenance messages associated with the MMR and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION MMR-L shows the status DOWN, then do: Fault Isolation Procedure - OUT#3 Bus Fail, that follows.
 - (b) If END CONNECTION MMR-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - OUT#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 34-58-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the OUT#3 BUS at the MMR-L Cabinet, M34410, at connector DM34410AB.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove the Left Satellite Data Unit, SDU-LM23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009,	MMR-L, M34410,
E4-2	E1-2
DM46009AA	D6618
pin G7	pin E9
pin H7	pin F9

- (g) If you find a problem with the wiring, then repair the connection.
- (h) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.

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- (i) Re-connect the OUT#3 Bus at the MMR-L Cabinet, M34410, at connector DM34410AB.
- (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (k) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
- (l) Re-install the GPWC, M34004. To install it, do this task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (m) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the Tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.

 - 1) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (d) Do the Repair Confirmation at the end of this task.
- (2) Replace the MMR-L, M34410. These are the tasks:
 - Receiver for ILS - Removal, AMM TASK 34-31-01-000-801
 - Receiver for ILS - Installation, AMM TASK 34-31-01-400-801
 - (a) Do the Repair Confirmation at the end of the task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of the task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46055 does not show, then you corrected the problem.
 - (b) If Maintenance Message 46055 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

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931. Maintenance Message 46057 (AIMS-L~NFS1 'CMCS C' BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 is unserviceable between communication between the Central Maintenance Computer System (CMCS) Center Bus and the NFS.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46057.
 - (a) The fault data for Maintenance Message 46057 is: AIMS-L~NFS1 'CMCS C' BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46009

C. Related Data

- (1) WDM 45-45-31
- (2) WDM 46-13-11
- (3) SSM 46-13-11

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46057 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46057 still shows, then continue.
 - (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46057 does not show, then you corrected the fault.
 - b) If Maintenance Message 46057 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
 - (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION CMCS C shows the status DOWN, then do: Fault Isolation Procedure - CMCS C Bus Fail, that follows.
 - (b) If END CONNECTION CMCS-C shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.



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E. Fault Isolation Procedure - CMCS C Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	9	C34427	MMR C

- (a) If you closed the circuit breakers, then do the Repair Confirmation at the end of this Task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the CMCS C Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Electrically disconnect or isolate the CMCS Center Bus at connector D6606, at the Left AIMS Cabinet, M31101.
- (c) Remove the Center MMR, M34610. This is the task: Receiver for ILS - Removal, AMM TASK 34-31-01-000-801.
- (d) Remove the Center RA, M34312, at shelf E5-3. This is the task: Radio Altimeter Transceiver Removal, AMM TASK 34-33-01-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46009,	AIMS-L,
E4-2	M31101, E3-1
DM46009AA	D6606
pin G8	pin 51
pin H8	pin 52

- (g) If you find a problem with the wiring, then repair the connection.
- (h) Re-install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (i) Re-connect the CMCS Center Bus at connector D6606, at the Left AIMS Cabinet, M31101.
- (j) Re-install the Center MMR, M34610. This is the task: Receiver for ILS - Installation, AMM TASK 34-31-01-400-801.

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- (k) Re-install the Center RA, M34312, at shelf E5-3. This is the task: Radio Altimeter Transceiver Installation, AMM TASK 34-33-01-400-801.
- (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (m) Do the Repair Confirmation at the end of this task.
- (3) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46057 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46057 still shows, continue the Fault Isolation Procedure at the subsequent step.
NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

932. Maintenance Message 46061 (The NED-DG is failed, is in load mode or has invalid client credentials) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when Ethernet communication between the Network Extension Device-Domain Guard (NED-DG), and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46061.
 - (a) The fault data for Maintenance Message 46061 is: The NED-DG is failed, is in LOAD Mode, or has invalid Client Credentials.

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B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network Extension Device-Domain Guard (NED-DG), M46010
- (4) NFS, M46009

C. Related Data

- (1) WDM 46-13-11
- (2) WDM 46-13-12

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46061 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46061 still shows, then continue.
- (2) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > ETHERNET (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION NED-DG shows the status DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If END CONNECTION NED-DG shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

E. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, then do the Repair Confirmation at the end of this task.
- (2) Make sure that the NED-DG Load Mode Switch, S46002, is set to NORMAL.

- (a) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
117AL	Main Equipment Center Access Door

- 1) To find the door, you can refer to (Finding an Access Door or Panel on the Fuselage, AMM TASK 06-41-00-800-801).
- (b) Set the NED-DG LOAD MODE Switch, S46002, to the NORMAL MODE.

NOTE: When the NED-DG is set to LOAD Mode, all communication between the MAT and AIMS is unserviceable.



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- (c) If you changed the switch position, then do the Repair Confirmation at the end of the task.
- (3) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of the task.
- (4) Do a check of the NED-DG Software already installed (Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804, and Network Extension Device Software Check, AMM TASK 46-13-02-720-802).
 - (a) Make sure that all software parts installed on the NED agree with the software specified in your record, as specified by the airline or operator.
 - 1) If necessary, re-install the software (Network File Server Software Installation, AMM TASK 46-13-01-470-801 and Network Extension Device Software Installation, AMM TASK 46-13-02-470-801).
 - 2) Do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (5) Do a check of the Ethernet and Discrete Wiring as follows (WDM 46-13-11, WDM 46-13-12).
 - (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
 - (b) Remove the NFS, M46009. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E BAY

NFS, M46009	NED-DG,
M46009AB	M46010
	M46010B
pin LL-1	pin 1-2
pin LL-3	pin 1-4
pin LL-2	pin 1-1
pin LL-4	pin 1-3

- 1) If you find a problem with the Ethernet Wiring, then repair the wiring.
- (d) Do this check of the Program Pin Wiring as follows (WDM 46-13-12):



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E/E BAY

NED-DG LOAD

Switch	NED-DG	Resistance
S46002	D46010P	
pin 3	pin 5	CONTINUITY
pin 2	pin 15	CONTINUITY
pin 3	pin 15	OPEN (LOAD Mode) CONT (NORMAL Mode)
pin 1	pin 15	OPEN (NORMAL Mode) CONT (LOAD Mode)

- 1) If you find a problem with the Toggle Switch or Discrete Wiring, then correct the problem.
- (e) Install the NFS, M46009. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (f) Connect the electrical connector, DM46010B to the NED-DG M46010, Network Extension Device Installation, AMM TASK 46-13-02-400-801.
- (g) Do the Repair Confirmation at the end of this task.
- (6) Remove the NED-DG, M46010, and install a serviceable NED-DG. These are the tasks:
 - Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (7) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (8) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117AL	Main Equipment Center Access Door

F. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Remove the NFS, and install a serviceable NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001



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- Network File Server Installation, AMM TASK 46-13-01-400-801-001

(a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

(1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

(a) If Maintenance Message 46061 does not show, then you corrected the fault.

(b) If Maintenance Message 46061 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

933. Maintenance Message 46064 (AIMS-L~NED-DG ETHERNET BUS FAIL) - Fault Isolation

A. Description

(1) The NFS shows this Maintenance Message when Ethernet Communication between Port 2 of the Network Extension Device-Domain Guard (NED-DG) and the Left AIMS Cabinet is unserviceable.

(2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46064.

(a) The fault data for Maintenance Message 46064 is: AIMS-L~NED-DG ETHERNET BUS FAIL.

B. Possible Causes

(1) Software

(2) Wiring

(3) Network Extension Device-Domain Guard (NED-DG), M46010

C. Related Data

(1) WDM 46-13-12

D. Initial Evaluation

(1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

(a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.

1) If Maintenance Message 46064 does not show, then the fault is intermittent.

a) Corrective action for other Maintenance Messages shown is necessary.

2) If Maintenance Message 46064 still shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

(1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

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- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of the task.
- (2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring (WDM 46-13-12):
- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
- (b) Disconnect or electrically isolate the Ethernet Wiring at electrical connector D6633 from the left AIMS Cabinet, M31101 (Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801).
- (c) Do a check of the Ethernet Wiring between the AIMS-L and NED-DG as follows (WDM 46-13-12):

E/E BAY

AIMS-L, M31101 D6633	NED-DG, M46010 DM46010B
pin 41	pin 2-1
pin 40	pin 2-3
pin 38	pin 2-2
pin 37	pin 2-4

- (d) Connect the electrical connector, DM46010B to the NED-DG, M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (e) Re-connect the Ethernet Wiring at electrical connector D6633 from the Left AIMS Cabinet, M31101 (Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801).
- (4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) Allow approximately one minute for the NED-DG to reboot.
- (b) Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (a) Do the Repair Confirmation at the end of this task.
- (6) Remove the NED-DG, M46010, and install a serviceable NED-DG. Do these tasks:
- Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801



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- (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46064 does not show, then you corrected the fault.
- (b) If Maintenance Message 46064 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

934. Maintenance Message 46065 (AIMS-R~NED-DG ETHERNET BUS FAIL) - Fault Isolation

A. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between Port 2 of the Network Extension Device-Domain Guard (NED-DG) and the Left AIMS Cabinet is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46064.
- (a) The fault data for Maintenance Message 46064 is: AIMS-L~NED-DG ETHERNET BUS FAIL.

B. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network Extension Device-Domain Guard (NED-DG), M46010

C. Related Data

- (1) WDM 46-13-12

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
- 1) If Maintenance Message 46064 does not show, then the fault is intermittent.
- a) Corrective action for other Maintenance Messages shown is necessary.
- 2) If Maintenance Message 46064 still shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of the task.

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- (2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG



CAUTION

DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring (WDM 46-13-12):
- Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
 - Disconnect or electrically isolate the Ethernet Wiring at electrical connector D6633 from the left AIMS Cabinet, M31101 (Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801).
 - Do a check of the Ethernet Wiring between the AIMS-L and NED-DG as follows (WDM 46-13-12):

E/E BAY

AIMS-L, M31101 D6633	NED-DG, M46010 DM46010B
pin 41	pin 2-1
pin 40	pin 2-3
pin 38	pin 2-2
pin 37	pin 2-4

- Connect the electrical connector, DM46010B to the NED-DG, M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
 - Re-connect the Ethernet Wiring at electrical connector D6633 from the Left AIMS Cabinet, M31101 (Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801).
- (4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- Allow approximately one minute for the NED-DG to reboot.
 - Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- Do the Repair Confirmation at the end of this task.
- (6) Remove the NED-DG, M46010, and install a serviceable NED-DG. Do these tasks:
- Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
- Do the Repair Confirmation at the end of this task.

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F. Repair Confirmation

- (1) Do a check of the EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46064 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46064 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

939. Maintenance Message 46078 (SECURITY LOG FULL) - Fault Isolation

A. Description

- (1) This Maintenance Message is detected by internal monitoring of the security partition.
- (2) Usage is currently limited to 95% full. When that limit is exceeded, there is a possible loss of Security Data.
- (3) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46078.

B. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46078 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46078 shows, then do the fault isolation procedure below.

C. Fault Isolation Procedure

- (1) Make sure that you first talk to your engineering department, and then transfer or remove all unnecessary Security Logs that can be deleted. Do the steps that follow:
- (2) Set the ONS Maintenance Browser to show the LINE MAINTENANCE > DOWNLOAD MANAGER page.
 - (a) When the DOWNLOAD MANAGER box shows, do these steps:
 - 1) Click on the applicable log type (LOG:SECURITY) to highlight.
 - 2) Click on the FILES tab.
- (3) To transfer a Security Log File from the NFS, do the steps that follow:
 - (a) Click on the Target Log File(s). You can highlight one, some, or all of the Log Files.
 - (b) Click the TRANSFER button to send the file(s) to the Portable Maintenance Device.
 - (c) Click SEND and use the browser dialog boxes to choose a location to save the file(s).
- (4) To erase a Security Log file from the NFS, do the steps that follow:
 - (a) Click on the Target Log File(s). You can highlight one, some, or all of the Log Files.
 - (b) Click the DELETE button.
 - (c) When the confirmation box shows, click once on the CONFIRM button.
- (5) Click refresh on the browser or, exit and then re-enter the ONS EXISTING FAULTS page (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46078 does not show, then you corrected the fault.

————— END OF TASK —————

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943. Maintenance Message 46147 (Insufficient storage space in the ONS MSD for a to-be-loaded LSAP)
- Fault Isolation

A. Description

- (1) This Maintenance Message shows when there is not enough storage space in the ONS Mass Storage Device (MSD). No more LSAPs can be staged to the ONS MSD due to insufficient space available.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46147.
 - (a) The fault data for Maintenance Message 46147 is: Insufficient storage space in the ONS MSD for a to-be-loaded LSAP.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46147 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46147 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Delete all unnecessary software parts from the MSD. Do this task: Mass Storage Device Software Removal, AMM TASK 46-13-00-070-801.
 - (a) Click refresh on the browser, or exit and then re-enter the ONS EXISTING FAULTS page.
 - 1) If Maintenance Message 46147 does not show, then you corrected the fault.

————— **END OF TASK** —————

944. Maintenance Message 46150 (NFS 1 has a loaded part that fails validity check) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when a LSAP on the NFS-1 fails a boot-time validation check, and is not loaded into memory.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46150.
 - (a) The fault data for Maintenance Message 46150 is: NFS 1 has a loaded part that fails validity check.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46150 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46150 shows, then do the Fault Isolation Procedure below.



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D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
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NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (a) Do the Repair Confirmation at the end of this task.
- (2) Install NFS NetManager, NFS Operating System (OS) and NFS OPC Software Parts. Do this task: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
 - (a) Do the Repair Confirmation at the end of this task.
- (3) Do this task: Network File Server Reimage Procedure, AMM TASK 46-13-01-470-802.
 - (a) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46150 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46150 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

945. Maintenance Message 46151 (The NED inside the NFS1 is failed or has invalid client credentials) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when the Internal Network Extension Device (NED) inside the NFS-1 is unserviceable. Maintenance Message 46151 can show when one or both of these conditions occurs:
 - (a) ARINC 429 Receive and Transmit Communication is unserviceable through the NED-DG.
 - (b) The NFS does not give the status of the Ethernet Busses.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46151.
 - (a) The fault data for Maintenance Message 46151 is: The NED inside the NFS1 is failed or has invalid client credentials.

B. Possible Causes

- (1) Software
- (2) NFS, M46009

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46151 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.



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- (b) If Maintenance Message 46151 shows, then continue.

D. Fault Isolation Procedure

- (1) Look at the NED Indicator Lights on the face of the NFS, M46009.
- (2) If one or more of these conditions exist, then replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Amber LED adjacent to the word FAULT is ON.
- (b) Green LED below to the word LINK is OFF.
- (c) Green LED above the word ACT is OFF.
- (3) Do the Repair Confirmation at the end of this task.
- (4) Make a new Client Credential for the NFS. Do this task: (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of this task.
- (5) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (6) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of the task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46151 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46151 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

946. Maintenance Message 46159 (OBEDS failed to load OAS Certificates and/or private key after 10 minutes) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when the ONS is energized for more than ten minutes, but does not receive Date and Time from the airplane source.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46159.

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- (a) The fault data for Maintenance Message 46159 is: OBEDS failed to load OAS Certificates and/or private key after 10 minutes.

B. Possible Causes

- (1) Airplane Credentials

C. Related Data

- (1) WDM 46-11-52

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46159 does not show, then the fault was intermittent. No action is necessary.
- (b) If Maintenance Message 46159 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
- (a) If you find a problem with the credentials, then do the corrective action specified in the task.
- 1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46159 does not show, then you corrected the fault.
- (b) If Maintenance Message 46159 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

947. Maintenance Message 46160 (OBEDS detects expired or missing OAS certificate) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when one or both of these conditions is present:
- (a) An OBEDS Internal Function found no certificate from OAS.
- (b) The certificate has expired.

NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.

- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46160.



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- (a) The fault data for Maintenance Message 46160 is: OBEDS detects expired or missing OAS certificate.

B. Possible Causes

- (1) Software Certificates

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46160 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46160 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) If you find a problem with the credentials, then do the corrective action specified in the task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46160 does not show, then you corrected the fault.
NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

948. Maintenance Message 46161 (OBEDS Operational Error Detected) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when one or both of these conditions is present:
 - (a) An OBEDS Internal Function found no certificate from OAS.
 - (b) The certificate has expired.
NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.
- (2) Use this Task when the ONS EXISTING FAULTS shows Maintenance Message 46161.
 - (a) The fault data for Maintenance Message 46161 is: OBEDS Operational Error Detected.

B. Possible Causes

- (1) Software Certificates

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46161 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46161 shows, then do the Fault Isolation Procedure below.



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D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) If you find a problem with the credentials, then do the corrective action specified in the task.
 - 1) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46161 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46161 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

949. Maintenance Message 46162 (OBEDS Cannot Authenticate Ground Server Connection) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when one, or more, of these conditions is present:
 - (a) The software part 46 NFS OAS AIRLINE CERTS AMI is unserviceable.
 - (b) The Ground Server Configuration is unserviceable.
- (2) Use this Task when the ONS EXISTING FAULTS shows Maintenance Message 46162.
 - (a) The fault data for Maintenance Message 46162 is: OBEDS cannot authenticate ground server connection.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46162 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46162 shows, then do the Fault Isolation Procedure below.



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D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

- (a) Do the Repair Confirmation at the end of this Task.
- (2) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credentials, then do the corrective action specified in the task.
 - 1) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46162 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46162 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

950. Maintenance Message 46165 (OAS AIRPLANE UMS FAIL) - Fault Isolation

A. Description

- (1) This Maintenance Message shows when one or more of these conditions is present:
 - (a) Two software parts: 46 NFS OAS AIRLINE CERTS AMI, and 46 NFS OAS AIRLINE CRL AMI, do not agree, and are unserviceable when in service at the same time.
 - (b) The Ground Server Configuration is unserviceable.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46165.
 - (a) The fault data for Maintenance Message 46165 is: OAS AIRPLANE KEYS UMS FAIL.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46165 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46165 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) The software parts that follow can be unserviceable. Follow your airline's policy to report this event.
 - 46 NFS OAS AIRLINE CERTS AMI
 - 46 NFS OAS AIRLINE CRL AMI

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- (a) If new software parts are made and furnished, then install the two parts (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) If you find a problem with the configuration, then do the corrective action that follows.
 - 1) Install the correct NFS Software Parts (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the same software installation again (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (c) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46165 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46165 still shows, continue the Fault Isolation Procedure at the subsequent step.
- NOTE:** ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

951. Maintenance Message 46911 (WWU is failed or has invalid client credentials) - Fault Isolation

A. Description

- (1) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46911.

B. Possible Causes

- (1) Wiring
- (2) Wireless WAN Unit (WWU), M44360
- (3) NFS, M46009

C. Initial Evaluation

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (2) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46911 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46911 shows, then do the Fault Isolation Procedure below.



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D. Fault Isolation Procedure

- (1) Do these steps to examine the wiring:
 - (a) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (b) Disconnect or electrically isolate the Ethernet Wiring at electrical connector DM44360B from the WWU, M44360 (WDM 46-13-11).
- (c) Disconnect or electrically isolate the Ethernet Wiring at electrical connector DM46009AB from the NFS, M46009 (WDM 46-13-21).
- (d) Do a check of the Ethernet Wiring between the NFS and the WWU as follows (WDM 46-13-21):

E/E BAY

NFS, M46009	WWU, M44360
DM46009AB	DM44360B
pin FF-1	pin 1-2
pin FF-3	pin 1-4
pin FF-4	pin 1-3
pin FF-2	pin 1-1

- 1) If you find a problem, then repair the wiring.
- (e) Connect the Ethernet Wiring at electrical connector DM44360 to the WWU, M44360 (WDM 46-13-21).
- (f) Connect the Ethernet Wiring at electrical connector DM46009AB to the NFS, M46009 (WDM 46-13-21).
- (g) Disconnect electrical connector DM44360P from the WWU, M44360 (WDM 46-13-11).
- (h) Disconnect electrical connector DM46009AA from the NFS, M46009 (WDM 46-13-11).
- (i) Do a check for continuity between the NFS and the WWU as follows (WDM 46-13-11):

E/E BAY

NFS, M46009	WWU, M44360
DM46009AA	DA44360P
pin J9	pin 17
pin J3	pin 3
pin K2	pin 4
pin K9	pin 24

- 1) If you find a problem, then repair the wiring.
- (j) Connect electrical connector DM44360P to the WWU, M44360 (WDM 46-13-11).
- (k) Connect electrical connector DM46009AA to the NFS, M46009 (WDM 46-13-11).



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- (l) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (m) Wait approximately 5 minutes for the NFS to reboot.
- (n) Do the Repair Confirmation at the end of this task.
- (2) Replace the WWU. These are the tasks:
- Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46911 does not show, then you corrected the fault.
- (b) If Maintenance Message 46911 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

952. Maintenance Message 46914 (WWU RF ENABLE~NFS1 DISCRETE FAIL) - Fault Isolation

A. Description

- (1) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46914.

B. Possible Causes

- (1) Wiring
- (2) Wireless WAN Unit (WWU), M44360
- (3) NFS, M46009

C. Related Data

- (1) WDM 46-11-52

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D. Initial Evaluation

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (2) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46914 does not show, then the fault was intermittent. No action is necessary.
- (b) If Maintenance Message 46914 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do these steps to examine the wiring (WDM 46-11-52):

- (a) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (b) Disconnect electrical connector DM44360P from the WWU, M44360.
- (c) Disconnect electrical connector DM46009AA from the NFS, M46009.
- (d) Do a check for continuity between the NFS and the WWU as follows (WDM 46-11-52):

E/E BAY

NFS, M46009	WWU, M44360
DM46009AA	DA44360P
pin J9	pin 17
pin J3	pin 3
pin K2	pin 4
pin K9	pin 24

- 1) If you find a problem, then repair the wiring.
- (e) Connect electrical connector DM44360P to the WWU, M44360.
- (f) Connect electrical connector DM46009AA to the NFS, M46009.
- (g) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

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<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (h) Wait approximately 5 minutes for the NFS to reboot.
- (i) Do the Repair Confirmation at the end of this task.
- (2) Replace the WWU. These are the tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (4) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46914 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46914 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

953. Maintenance Message 46915 (WWU WOW DISCRETE FAIL) - Fault Isolation

A. Description

- (1) Use this Task when the ONS EXISTING FAULTS shows Maintenance Message 46915.

B. Possible Causes

- (1) Wiring
- (2) Wireless WAN Unit (WWU), M44360
- (3) NFS, M46009

C. Related Data

- (1) WDM 46-11-52

D. Initial Evaluation

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER



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Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (2) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46915 does not show, then the fault was intermittent. No action is necessary.
 - (b) If Maintenance Message 46915 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do these steps to examine the wiring:
 - (a) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (b) On the WWU, do a check for ground at connector DA44360P, pin 23 (WDM 46-11-52).
 - 1) If you do not find ground, then repair the wiring.
 - 2) If you find ground, then continue.
- (2) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46411	NETWORK FILE SERVER

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

- (a) Do the Repair Confirmation at the end of this task.
- (3) Replace the WWU. These are the tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.



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F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46915 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46915 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

———— **END OF TASK** ————

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A01. Onboard Network System (ONS) Fault Message Table

A. Description

- (1) This task includes the Maintenance Message Numbers, Message Text and the applicable FIM Tasks for the Maintenance Messages that show on the Onboard Network System EXISTING FAULTS Page.
- (2) The EXISTING FAULTS page shows when you select EXTENDED MAINTENANCE > EXISTING FAULTS > 46 - Onboard Network System > CONTINUE.

NOTE: Only LRUs/Systems that have an interface with ONS and that have Maintenance Messages show on the ONS EXISTING FAULTS page. If an LRU/System that has an interface with ONS does not have a Maintenance Message, that LRU/System will not show on the EXISTING FAULTS page.

B. Fault Isolation Procedure

- (1) Look in the Table below for the Maintenance Messages that show on the EXISTING FAULTS page. The EXISTING FAULTS page shows when you select EXTENDED MAINTENANCE > EXISTING FAULTS > 46 - Onboard Network System > CONTINUE.
- (2) Go to the applicable FIM Task indicated in the "Onboard Network System Maintenance Messages" Table below for the messages that show.

NOTE: Only LRUs/Systems that have an interface with ONS and that have Maintenance Message(s) and Fault Message(s) show on the ONS EXISTING FAULTS page. If an LRU/System that has an interface with ONS does not have a Maintenance Message/Fault Message, that LRU/System will not show on the EXISTING FAULTS page.

Onboard Network System Maintenance Messages

MAINT. MSG No.	MAINTENANCE MESSAGE TEXT	GO TO FIM TASK
46-10010	Network File Server (Left) SSP is failed	46-13 TASK A02
46-10020	Network File Server (Left) NSP is failed	46-13 TASK A03
46-10030	Network File Server (Left) ExComm UMS has incompatible software	46-13 TASK A04
46-10050	Network File Server (Left) Security Log Storage is nearing or at capacity	46-13 TASK A05
46-10060	Network File Server (Left) UMS certificates are incompatible	46-13 TASK A06
46-10070	Network File Server (Left) Airline Certs UMS certificate is expired	46-13 TASK A07
46-10080	Network File Server (Left) UMS certificate does not agree with ground server	46-13 TASK A08
46-10090	Network File Server (Left) UMS certificate is expiring soon	46-13 TASK A09
46-10100	Network File Server (Left) UMS certificate does not agree with aircraft information	46-13 TASK A10
46-10110	Network File Server (Left) and Network Extension Device - Domain Guard have incorrect OPC configuration	46-13 TASK A11
46-10130	Network File Server (Left) Airplane Keys UMS certificate is expired	46-13 TASK A13
46-10140	Network File Server (Left) Airline CRL UMS certificate is expired	46-13 TASK A14
46-10150	Network File Server (Left) MEF UMS is failed	46-13 TASK A15
46-10160	Network File Server (Left) OAS UMS has missing information	46-13 TASK A16

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Onboard Network System Maintenance Messages (Continued)

MAINT. MSG No.	MAINTENANCE MESSAGE TEXT	GO TO FIM TASK
46-10170	Network File Server (Left) Airplane Keys UMS is failed	46-13 TASK A17
46-10200	Network Extension Device - Domain Guard is failed	46-13 TASK A18
46-10400	Wireless WAN Unit is failed	46-13 TASK A20
46-10410	Network File Server (Left) WWU RF Enable Discrete does not agree with WWU RF Status	46-13 TASK A21
46-10420	Network File Server (Left) WOW Discrete does not agree with WWU WOW Status	46-13 TASK A22
46-10500	Flight Deck Printer is failed	46-13 TASK A23
46-10510	Flight Deck Printer is offline	46-13 TASK A24
46-15002	Network Extension Device - Domain Guard has no input from Enhanced Electronic Module Unit on Ethernet Bus 9	46-13 TASK A31
46-15012	Network Extension Device - Domain Guard has no input from Flight Deck Printer on Ethernet Bus 8	46-13 TASK A32
46-15020	Network File Server (Left) has no input from Captain Electronic Flight Bag EU on Ethernet Bus NSP SP9	46-13 TASK A33
46-15030	Network File Server (Left) has no input from F/O Electronic Flight Bag EU on Ethernet Bus NSP SP10	46-13 TASK A34
46-15040	Network File Server (Left) has no input from Wireless WAN Unit on Ethernet Bus NSP SP11	46-13 TASK A35
46-15060	Network File Server (Left) has no input from Network Extension Device - Domain Guard on Ethernet Bus NSP SP16	46-13 TASK A37
46-15082	Network Extension Device - Domain Guard has no input from Left AIMS on Ethernet Bus 2	46-13 TASK A39
46-15092	Network Extension Device - Domain Guard has no input from Right AIMS on Ethernet Bus 3	46-13 TASK A40
46-15102	Network Extension Device - Domain Guard has no input from Ground Proximity Warning Computer on Ethernet Bus 4	46-13 TASK A41
46-16010	Network File Server (Left) has no input from Left AIMS on General Purpose #1 Bus (429)	46-13 TASK A45
46-16020	Network File Server (Left) has no input from Left AIMS on General Purpose #3 Bus (429)	46-13 TASK A46
46-16030	Network File Server (Left) has no input from Left AIMS on General Purpose #4 Bus (429)	46-13 TASK A47
46-16040	Network File Server (Left) has no input from Left AIMS on IRS Bus (429)	46-13 TASK A48
46-16060	Network File Server (Left) has no input from Left AIMS on CMCS Center Bus (429)	46-13 TASK A50
46-16110	Network File Server (Left) has no input from Right AIMS on General Purpose #1 Bus (429)	46-13 TASK A51
46-16120	Network File Server (Left) has no input from Right AIMS on General Purpose #3 Bus (429)	46-13 TASK A52

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Onboard Network System Maintenance Messages (Continued)

MAINT. MSG No.	MAINTENANCE MESSAGE TEXT	GO TO FIM TASK
46-16130	Network File Server (Left) has no input from Right AIMS on General Purpose #4 Bus (429)	46-13 TASK A53
46-16140	Network File Server (Left) has no input from Right AIMS on IRS Bus (429)	46-13 TASK A54
46-16270	Network File Server (Left) has no input from Multi-Mode Receiver (left) on Output Bus 3 (429)	46-13 TASK A56

————— END OF TASK —————

A02. Maintenance Message 46-10010 (Network File Server (Left) SSP is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10010.

B. Description

- (1) Use this task when Maintenance Message 46-10010 (Network File Server (Left) SSP is failed) shows on the EXISTING FAULTS page.

NOTE: If possible, for all instances of this Maintenance Message, send the log files to Boeing Engineering.

C. Possible Causes

- (1) Software Part Numbers
- (2) Software Certificates

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10010 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10010 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure - Software Part Numbers

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) Do the Repair Confirmation at the end of this task.
- (2) The Boeing Company recommends that you make a back-up copy of the applicable files from the NFS. This is the Task: Network File Server Log File Check, AMM TASK 46-13-01-800-802.

NOTE: Know and follow your airline or operator's procedure for record retention.

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- (3) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) If the Part Number is not correct, then re-install the software. This is the task: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
 - (b) If the Part Number is correct, then continue.
- (4) Do the Network File Server Reimage Procedure, AMM TASK 46-13-01-470-802.

NOTE: This step removes all customer data, file logs, and most software parts from the server. Back up all data as necessary.

 - (a) Do the Repair Confirmation at the end of this task.

F. Fault Isolation Procedure - Software Certificates

- (1) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) If you find a problem with the credentials, then do the corrective action specified in the task.
 - 1) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10010 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10010 still shows, then continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A03. Maintenance Message 46-10020 (Network File Server (Left) NSP is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10020.

B. Description

- (1) This Maintenance Message shows when the Internal Network Extension Device (NED) inside the NFS-L is unserviceable. Maintenance Message 46-10020 can show when one or both of these conditions occurs:
 - (a) ARINC 429 Receive and Transmit Communication is unserviceable through the NED-DG.
 - (b) The NFS does not give the status of the Ethernet Busses.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-10020.
 - (a) The fault data for Maintenance Message 46-10020 is: The NED inside the NFS-L is failed or has invalid client credentials.

C. Possible Causes

- (1) Software
- (2) NFS, M46013

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10020 does not show, then the fault is intermittent.

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- 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-10020 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Look at the NED Indicator Lights on the face of the NFS, M46013.
- (2) If one or more of these conditions exist, then replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Amber LED adjacent to the word FAULT is ON.
- (b) Green LED below to the word LINK is OFF.
- (c) Green LED above the word ACT is OFF.
- (3) Do the Repair Confirmation at the end of this task.
- (4) Make a new Client Credential for the NFS. Do this task: (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of this task.
- (5) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
 - (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (6) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of the task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10020 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10020 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A04. Maintenance Message 46-10030 (Network File Server (Left) ExComm UMS has incompatible software) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10030.

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B. Description

- (1) This Maintenance Message shows when a LSAP on the NFS-L fails a boot-time validation check, and is not loaded into memory.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-10030.
 - (a) The fault data for Maintenance Message 46-10030 is: Network File Server (Left) ExComm UMS has incompatible software.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10030 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10030 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (a) Do the Repair Confirmation at the end of this task.
- (2) Install NFS NetManager, NFS Operating System (OS) and NFS OPC Software Parts. Do this task: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
 - (a) Do the Repair Confirmation at the end of this task.
- (3) Do this task: Network File Server Reimage Procedure, AMM TASK 46-13-01-470-802.
 - (a) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10030 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10030 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

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A05. Maintenance Message 46-10050 (Network File Server (Left) Security Log Storage is nearing or at capacity) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10050.

B. Description

- (1) This Maintenance Message is detected by internal monitoring of the security partition.
- (2) Usage is currently limited to 95% full. When that limit is exceeded, there is a possible loss of Security Data.
- (3) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10050.

C. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10050 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10050 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Make sure that you first talk to your engineering department, and then transfer or remove all unnecessary Security Logs that can be deleted. Do the steps that follow:
- (2) Set the ONS Maintenance Browser to show the LINE MAINTENANCE > DOWNLOAD MANAGER page.
 - (a) When the DOWNLOAD MANAGER box shows, do these steps:
 - 1) Click on the applicable log type (LOG:SECURITY) to highlight.
 - 2) Click on the FILES tab.
- (3) To transfer a Security Log File from the NFS, do the steps that follow:
 - (a) Click on the Target Log File(s). You can highlight one, some, or all of the Log Files.
 - (b) Click the REPORT button to send the file(s) to the Portable Maintenance Device.
 - (c) Click SEND and use the browser dialog boxes to choose a location to save the file(s).
- (4) To erase a Security Log file from the NFS, do the steps that follow:
 - (a) Click on the Target Log File(s). You can highlight one, some, or all of the Log Files.
 - (b) Click the DELETE button.
 - (c) When the confirmation box shows, click once on the CONFIRM button.
- (5) Click refresh on the browser or, exit and then re-enter the ONS EXISTING FAULTS page (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10050 does not show, then you corrected the fault.

————— **END OF TASK** —————

A06. Maintenance Message 46-10060 (Network File Server (Left) UMS certificates are incompatible) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10060.

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B. Description

- (1) The NFS can show this Maintenance Message when a Certificate for Operationally Approved Software (OAS) does not agree, or is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10060.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10060 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10060 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Verify the configuration of the NFS, M46013. This is the task: Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804.
 - (a) If you find a problem with the configuration, then install the correct NFS Software: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure that you do the steps to generate a Credential Signing Request (CSR), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10060 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10060 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A07. Maintenance Message 46-10070 (Network File Server (Left) Airline Certs UMS certificate is expired) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10070.

B. Description

- (1) This Maintenance Message shows when one or more of these conditions is present:
 - (a) An OBEDS Internal Function found no certificate from OAS.
 - (b) The Crated Installation File is unserviceable.

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- (c) The certificate has expired, or is unserviceable.

NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.

- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10070.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10070 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10070 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Examine the configuration for this software part: 46 NFS OAS AIRLINE CERTS UMS (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS OAS AIRLINE CERTS UMS, then install a new LSAP (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10070 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A08. Maintenance Message 46-10080 (Network File Server (Left) UMS certificate does not agree with ground server) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10080.

B. Description

- (1) This Maintenance Message shows when one, or more, of these conditions is present:
 - (a) The software part 46 NFS OAS AIRLINE CERTS UMS is unserviceable.
 - (b) The Ground Server Configuration is unserviceable.
- (2) Use this Task when the ONS EXISTING FAULTS shows Maintenance Message 46-10080.
 - (a) The fault data for Maintenance Message 46-10080 is: Network File Server (Left) UMS certificate does not agree with ground server.

C. Possible Causes

- (1) Software

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D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10080 does not show, then the fault was intermittent. No action is necessary.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10080 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) Do the Repair Confirmation at the end of this Task.
- (2) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) If you find a problem with the credentials, then do the corrective action specified in the task.
 - 1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10080 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10080 still shows, continue the Fault Isolation Procedure at the subsequent step.
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A09. Maintenance Message 46-10090 (Network File Server (Left) UMS certificate is expiring soon) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10090.

B. Description

- (1) This Maintenance Message shows when the Software Part Signing Certificate is serviceable, but it will expire in 30 days or less.
- (2) Use this Task when ONS EXISTING FAULTS shows Maintenance Message 46-10090.

C. Possible Causes

- (1) Software

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D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10090 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10090 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do the Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802.
 - (a) Make sure you do the steps to generate a new client credential.
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Server Credentials Check, AMM TASK 46-13-00-750-801.
 - (a) Make sure you do the steps to generate a new server credential.
 - 1) Do the Repair Confirmation at the end of this task.
- (3) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure that you do the steps to generate a Credential Signing Request (CSR), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10090 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10090 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A10. Maintenance Message 46-10100 (Network File Server (Left) UMS certificate does not agree with aircraft information) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10100.

B. Description

- (1) This Maintenance Message shows when the data recorded on the ONS Airplane Identification Page does not agree with one or more Security Certificates.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10100.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10100 does not show, then the fault was intermittent.

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- 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-10100 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do the Onboard Network System Aircraft Identification Check, AMM TASK 46-13-00-860-801.
 - (a) If you find a problem, then correct the Airplane Identification Data.
 - (b) Do the Repair Confirmation at the end of this task.
- (2) Do this task: (Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803).
 - (a) Make sure that you do the steps to generate a Credential Signing Request (CSR), and install the new airplane keys.
 - (b) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10100 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10100 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A11. Maintenance Message 46-10110 (Network File Server (Left) and Network Extension Device - Domain Guard have incorrect OPC configuration) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10110.

B. Description

- (1) This Maintenance Message shows when one or more of these conditions is present:
 - (a) The Software Part Signing Certificate has expired, or is unserviceable.
 - (b) An OBEDS Internal Function found no certificate from OAS.
 - (c) The Crated Installation File is unserviceable.
 - (d) The certificate has expired, or is unserviceable.

NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.

- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10110.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10110 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.

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- (b) If Maintenance Message 46-10110 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Examine the configuration for these software parts: 46 NFS NSP OPC, 46 NED OPS, and 46 NED-DG OPC (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS NSP OPC, 46 NED OPS, or 46 NED-DG OPC, then install a new LSAP (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802.
 - (a) Make sure you do the steps to generate a new client credential.
 - 1) Do the Repair Confirmation at the end of this task.
- (3) Do the Onboard Network System Server Credentials Check, AMM TASK 46-13-00-750-801.
 - (a) Make sure you do the steps to generate a new server credential.
 - 1) Do the Repair Confirmation at the end of this task.
- (4) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure you do the steps to generate a Credential Signing Request (CST), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10140 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10140 shows, then continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A13. Maintenance Message 46-10130 (Network File Server (Left) Airplane Keys UMS certificate is expired) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10130.

B. Description

- (1) This Maintenance Message shows when the Software Part Signing Certificate has expired, or is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10130.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10130 does not show, then the fault was intermittent.

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- 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-10130 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure you do the steps to generate a Credential Signing Request (CST), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this Task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10130 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A14. Maintenance Message 46-10140 (Network File Server (Left) Airline CRL UMS certificate is expired) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10140.

B. Description

- (1) This Maintenance Message shows when one or more of these conditions is present:
 - (a) The Software Part Signing Certificate has expired, or is unserviceable.
 - (b) An OBEDS Internal Function found no certificate from OAS.
 - (c) The Crated Installation File is unserviceable.
 - (d) The certificate has expired, or is unserviceable.

NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.

- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10140.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10140 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10140 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Examine the configuration for this software part: 46 NFS AIRLINE CRL UMS (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) If you find a problem with 46 NFS AIRLINE CRL UMS, then install a new LSAP (Network File Server Software Installation, AMM TASK 46-13-01-470-801).

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- (b) Do the Repair Confirmation at the end of this task.
- (2) Do the Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802.
 - (a) Make sure you do the steps to generate a new client credential.
 - 1) Do the Repair Confirmation at the end of this task.
- (3) Do the Onboard Network System Server Credentials Check, AMM TASK 46-13-00-750-801.
 - (a) Make sure you do the steps to generate a new server credential.
 - 1) Do the Repair Confirmation at the end of this task.
- (4) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) Make sure you do the steps to generate a Credential Signing Request (CST), and install the new airplane keys.
 - 1) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10140 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10140 shows, then continue the Fault Isolation Procedure at the subsequent step.
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A15. Maintenance Message 46-10150 (Network File Server (Left) MEF UMS is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10150.

B. Description

- (1) This Maintenance Message shows when one or more of these conditions is present:
 - (a) Software part: 46 NFS MEF UMS is unserviceable.
 - (b) The Ground Server Configuration is unserviceable.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-10150.
 - (a) The fault data for Maintenance Message 46-10150 is: Network File Server (Left) MEF UMS is failed.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10150 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10150 shows, then do the Fault Isolation Procedure below.

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E. Fault Isolation Procedure

- (1) The software part 46 NFS MEF UMS can be unserviceable. Follow your airline's policy to report this event.
 - (a) If new a software part is made and furnished, then install the part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) If you find a problem with the configuration, then do the corrective action that follows.
 - 1) Install the correct NFS Software Parts (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the same software installation again (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (c) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10150 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10150 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A16. Maintenance Message 46-10160 (Network File Server (Left) OAS UMS has missing information) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10160.

B. Description

- (1) This Maintenance Message shows when one or both of these conditions is present:
 - (a) An OBEDS Internal Function found no certificate from OAS.
 - (b) The certificate has expired.

NOTE: The certificate can refer to the Airplane Certificate, Command Certificate, Crate Certificate, SSL Certificate, or Part Certificate.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10160.
 - (a) The fault data for Maintenance Message 46-10160 is: Network File Server (Left) OAS UMS has missing information.

C. Possible Causes

- (1) Software Certificates

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10160 does not show, then the fault was intermittent.

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- 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-10160 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do the Onboard Network System Airplane Credentials Check, AMM TASK 46-13-00-750-803.
 - (a) If you find a problem with the credentials, then do the corrective action specified in the task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10160 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A17. Maintenance Message 46-10170 (Network File Server (Left) Airplane Keys UMS is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10170.

B. Description

- (1) This Maintenance Message shows when one or more of these conditions is present:
 - (a) Two software parts: 46 NFS AIRLINE CERTS UMS, and 46 NFS AIRLINE CRL UMS, do not agree, and are unserviceable when in service at the same time.
 - (b) The Ground Server Configuration is unserviceable.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46165.
 - (a) The fault data for Maintenance Message 46-10170 is: Network File Server (Left) Airplane Keys UMS is failed.

C. Possible Causes

- (1) Software

D. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10170 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10170 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) The software parts that follow can be unserviceable. Follow your airline's policy to report this event.
 - 46 NFS AIRLINE CERTS UMS
 - 46 NFS AIRLINE CRL UMS
 - (a) If new software parts are made and furnished, then install the two parts (Network File Server Software Installation, AMM TASK 46-13-01-470-801).

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- 1) Do the Repair Confirmation at the end of this task.
- (2) Do the Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) If you find a problem with the configuration, then do the corrective action that follows.
 - 1) Install the correct NFS Software Parts (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (b) Do the same software installation again (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (c) Do the Repair Confirmation at the end of this task.

F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10170 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10170 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

— END OF TASK —

A18. Maintenance Message 46-10200 (Network Extension Device - Domain Guard is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10200.

B. Description

- (1) The NFS shows this Maintenance Message when Ethernet communication between the Network Extension Device-Domain Guard (NED-DG), and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10200.
 - (a) The fault data for Maintenance Message 46-10200 is: Network Extension Device - Domain Guard is failed.

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network Extension Device-Domain Guard (NED-DG), M46010
- (4) NFS, M46013

D. Related Data

- (1) WDM 46-13-11
- (2) WDM 46-13-12

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10200 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10200 still shows, then continue.

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- (2) Use ONS to select: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > ETHERNET (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION NED-DG shows the status DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If END CONNECTION NED-DG shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) Do the Repair Confirmation at the end of this task.
- (2) Open this access panel:

<u>Number</u>	<u>Name/Location</u>
117AL	Main Equipment Center Access Door

 - (a) Refer to (Finding an Access Door or Panel on the Fuselage, AMM TASK 06-41-00-800-801).
- (3) Make sure that the NED-DG LOAD MODE Switch, S46002, is set to NORMAL.

NOTE: When the NED-DG is set to LOAD Mode, all communication between the MAT and AIMS is unserviceable.

 - (a) Do the Repair Confirmation at the end of the task.
- (4) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of the task.
- (5) Do a check of the NED-DG Software already installed (Onboard Network System Configuration Check, AMM TASK 46-13-00-720-804, and Network Extension Device Software Check, AMM TASK 46-13-02-720-802).

NOTE: Make sure that all software parts installed on the NED agree with the software specified in your record, as specified by the airline or operator.

 - (a) If necessary, re-install the software (Network File Server Software Installation, AMM TASK 46-13-01-470-801 and Network Extension Device Software Installation, AMM TASK 46-13-02-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (6) Replace the NED-DG, M46010. These are the tasks:
 - Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
 - (a) Do the Repair Confirmation at the end of this task.
- (7) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001

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- (a) Do the Repair Confirmation at the end of this task.
- (8) Close this access panel:

<u>Number</u>	<u>Name/Location</u>
117AL	Main Equipment Center Access Door



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (9) Do a check of the Ethernet and Discrete Wiring as follows (WDM 46-13-11, WDM 46-13-12).
- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
- (b) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E BAY

NFS, M46013	NED-DG, M46010
M46013AB	M46010B
pin LL-1	pin 1-2
pin LL-3	pin 1-4
pin LL-2	pin 1-1
pin LL-4	pin 1-3

- 1) If you find a problem with the Ethernet Wiring, then repair the wiring.
- (d) Do this check of the Program Pin Wiring as follows (WDM 46-13-12):

E/E BAY

NED-DG LOAD

Switch	NED-DG	Resistance
S46002	D46010P	
pin 3	pin 5	CONTINUITY
pin 2	pin 15	CONTINUITY
pin 3	pin 15	OPEN (LOAD Mode) / CONT (NORMAL Mode)
pin 1	pin 15	OPEN (NORMAL Mode) / CONT (LOAD Mode)

- 1) If you find a problem with the Toggle Switch or Discrete Wiring, then correct the problem.
- (e) Install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (f) Connect the electrical connector, DM46010B to the NED-DG M46010, Network Extension Device Installation, AMM TASK 46-13-02-400-801.
- (g) Do the Repair Confirmation at the end of this task.

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G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10200 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10200 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A20. Maintenance Message 46-10400 (Wireless WAN Unit is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10400.

B. Description

- (1) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-10400.

C. Possible Causes

- (1) Wiring
- (2) Wireless WAN Unit (WWU), M44360
- (3) NFS, M46013

D. Initial Evaluation

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

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Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (2) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10400 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10400 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Do these steps to examine the wiring:
 - (a) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (b) Disconnect or electrically isolate the Ethernet Wiring at electrical connector DM44360B from the WWU, M44360 (WDM 46-13-11).
- (c) Disconnect or electrically isolate the Ethernet Wiring at electrical connector DM46013AB from the NFS, M46013 (WDM 46-13-21).
- (d) Do a check of the Ethernet Wiring between the NFS and the WWU as follows (WDM 46-13-21):

E/E BAY

NFS, M46013 DM46013AB	WWU, M44360 DM44360B
pin FF-1	pin 1-2
pin FF-3	pin 1-4
pin FF-4	pin 1-3
pin FF-2	pin 1-1

- 1) If you find a problem, then repair the wiring.

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- (e) Connect the Ethernet Wiring at electrical connector DM44360 to the WWU, M44360 (WDM 46-13-21).
- (f) Connect the Ethernet Wiring at electrical connector DM46013AB to the NFS, M46013 (WDM 46-13-21).
- (g) Disconnect electrical connector DM44360P from the WWU, M44360 (WDM 46-13-11).
- (h) Disconnect electrical connector DM46013AA from the NFS, M46013 (WDM 46-13-11).
- (i) Do a check for continuity between the NFS and the WWU as follows (WDM 46-13-11):

E/E BAY

NFS, M46013 DM46013AA	WWU, M44360 DA44360P
pin J9	pin 17
pin J3	pin 3
pin K2	pin 4
pin K9	pin 24

- 1) If you find a problem, then repair the wiring.
- (j) Connect electrical connector DM44360P to the WWU, M44360 (WDM 46-13-11).
- (k) Connect electrical connector DM46013AA to the NFS, M46013 (WDM 46-13-11).
- (l) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (m) Wait approximately 5 minutes for the NFS to reboot.
- (n) Do the Repair Confirmation at the end of this task.
- (2) Replace the WWU. These are the tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

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F. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10400 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10400 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A21. Maintenance Message 46-10410 (Network File Server (Left) WWU RF Enable Discrete does not agree with WWU RF Status) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10410.

B. Description

- (1) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-10410.

C. Possible Causes

- (1) Wiring
- (2) Wireless WAN Unit (WWU), M44360
- (3) NFS, M46013

D. Related Data

- (1) WDM 46-11-52

E. Initial Evaluation

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (2) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10410 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10410 shows, then do the Fault Isolation Procedure below.

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F. Fault Isolation Procedure

- (1) Do these steps to examine the wiring (WDM 46-11-52):
 - (a) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (b) Disconnect electrical connector DM44360P from the WWU, M44360.
- (c) Disconnect electrical connector DM46013AA from the NFS, M46013.
- (d) Do a check for continuity between the NFS and the WWU as follows (WDM 46-11-52):

E/E BAY

NFS, M46013		WWU, M44360	
DM46013AA		DA44360P	
pin H1	.....	pin 17	
pin G4	.....	pin 3	
pin H4	.....	pin 4	
pin G1	.....	pin 24	

- 1) If you find a problem, then repair the wiring.
- (e) Connect electrical connector DM44360P to the WWU, M44360.
- (f) Connect electrical connector DM46013AA to the NFS, M46013.
- (g) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (h) Wait approximately 5 minutes for the NFS to reboot.

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- (i) Do the Repair Confirmation at the end of this task.
- (2) Replace the WWU. These are the tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (4) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10410 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10410 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

— END OF TASK —

A22. Maintenance Message 46-10420 (Network File Server (Left) WOW Discrete does not agree with WWU WOW Status) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10420.

B. Description

- (1) Use this Task when the ONS EXISTING FAULTS shows Maintenance Message 46-10420.

C. Possible Causes

- (1) Wiring
- (2) Wireless WAN Unit (WWU), M44360
- (3) NFS, M46013

D. Related Data

- (1) WDM 46-11-52

E. Initial Evaluation

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

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This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (2) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10420 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10420 shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Do these steps to examine the wiring:
 - (a) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (b) On the WWU, do a check for ground at connector DA44360P, pin 23 (WDM 46-11-52).
 - 1) If you do not find ground, then repair the wiring.
 - 2) If you find ground, then continue.
- (2) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	3	C44404	WWU POWER

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) Do the Repair Confirmation at the end of this task.

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- (3) Replace the WWU. These are the tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-10420 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-10420 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A23. Maintenance Message 46-10500 (Flight Deck Printer is failed) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-10500.

B. Description

- (1) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-10500.
- (2) This fault is sensed when the Flight Deck Printer cannot communicate with the Onboard Network System (ONS). Also, it is possible that you cannot print from the Flight Deck Printer.

C. Possible Causes

- (1) Flight Deck Printer, M31004.

D. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Maintenance Message 46-10500 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10500 shows, then do the Fault Isolation Procedure below.

E. Fault Isolation Procedure

- (1) Replace the Flight Deck Printer, M31004
- (2) These are the tasks:
 - Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801
 - Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801
- (3) Do the Repair Confirmation at the end of this task.

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F. Repair Confirmation

- (1) Click refresh on the browser or, exit and then re-enter the ONS EXISTING FAULTS page.
 - (a) If Maintenance Message 46-10500 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A24. Maintenance Message 46-10510 (Flight Deck Printer is offline) Shows - Fault Isolation

A. Description

- (1) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-10510.
- (2) This fault is sensed when the Flight Deck Printer is offline and cannot communicate with the Onboard Network System (ONS).

B. Possible Causes

- (1) Flight Deck Printer, M31004

C. Initial Evaluation

- (1) Do this task: Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Maintenance Message 46-10510 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-10510 shows, then do the Fault Isolation Procedure below.

D. Fault Isolation Procedure

- (1) Bring the Flight Deck Printer online.
- (2) Do the Repair Confirmation at the end of this task.

E. Repair Confirmation

- (1) Click refresh on the browser or, exit and then re-enter the ONS EXISTING FAULTS page.
 - (a) If Maintenance Message 46-10510 does not show, then you corrected the fault.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A31. Maintenance Message 46-15002 (Network Extension Device - Domain Guard has no input from Enhanced Electronic Module Unit on Ethernet Bus 9) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15002.

B. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between the Enhanced Expansion Module (EEMU), and the NFS is unserviceable.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-15002.
 - (a) The fault data for Maintenance Message 46-15002 is: Network Extension Device - Domain Guard has no input from Enhanced Electronic Module Unit on Ethernet Bus 9.

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C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013
- (4) Enhanced Expansion Module Unit (EEMU), M15671

D. Related Data

- (1) WDM 46-13-11
- (2) WDM 46-21-11

E. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15002 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-15002 shows, then continue.
- (2) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING> NFS > ETHERNET (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION EEMU shows the status DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If END CONNECTION EEMU shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
F	17	C46602	MAINT ACCESS TERM

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) Do the Repair Confirmation at the end of this task.
- (2) Do the steps that follow to examine the wiring:
 - (a) Remove the EEMU, M15671. This is the task: MAT Enhanced Electronic Modular Unit - Removal, AMM TASK 45-11-05-000-803.
 - (b) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (c) Do this check of the Ethernet Wiring (WDM 46-21-11):

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E/E Bay to Flight Deck

NED-DG, M46010, E4-2 DM46010B	EEMU, M15671, P18 DM15671
pin 9-2	pin 1
pin 9-4	pin 2
pin 9-1	pin 3
pin 9-3	pin 6

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the EEMU, M15671. This is the task: MAT Enhanced Electronic Modular Unit - Installation, AMM TASK 45-11-05-400-803.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Examine the Client Credential for the EEMU (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.
- (5) Replace the GPWC, M652. These are the tasks:
 - Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801
 - Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801
 - (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15002 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15002 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A32. Maintenance Message 46-15012 (Network Extension Device - Domain Guard has no input from Flight Deck Printer on Ethernet Bus 8) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15012.

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B. Description

- (1) This Maintenance Message shows the interface between the NFS and the Flight Deck Printer is not found. Possible fault indications related to this fault are:
 - (a) You cannot print ONS Reports to the Flight Deck Printer
 - (b) You are not able to print graphics from the EFBs.
- (2) Use this task when Maintenance Message 46-15012 shows on the EXISTING FAULTS page.

C. Possible Causes

- (1) Wiring
- (2) NFS, M46013
- (3) Flight Deck Printer, M31004

D. Related Data

- (1) WDM 46-13-11

E. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15012 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-15012 shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Examine the MAT for active maintenance messages associated with the Flight Deck Printer.
 - (a) If you find active Flight Deck Printer related maintenance messages, then do the applicable FIM Tasks for the messages that show (31-33 TASKS, PAGEBLOCK 31-33-00/201).
 - 1) After you correct the printer related faults, do the Repair Confirmation at the end of this task..
 - (b) If you do not find active Flight Deck Printer related maintenance messages, then continue.
- (2) Do the steps that follow to examine the wiring.
 - (a) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (b) Remove the Flight Deck Printer. This is the task: Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801.
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NED-DG	FD Printer
DM46010B	DM31004A
pin 8-1	pin G
pin 8-3	pin H
pin 8-2	pin G -
pin 8-4	pin H -

- 1) If you find a problem, then repair the wiring.

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- (d) Install the NFS. Do this task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the Flight Deck Printer. Do this task: Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the Flight Compartment Printer. These are the tasks:
 - Flight Compartment Printer Removal, AMM TASK 31-33-01-000-801
 - Flight Compartment Printer Installation, AMM TASK 31-33-01-400-801
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15012 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15012 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A33. Maintenance Message 46-15020 (Network File Server (Left) has no input from Captain Electronic Flight Bag EU on Ethernet Bus NSP SP9) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15020.

B. Description

- (1) This Maintenance Message shows if the interface between the NFS and the Captain's EFB Electronic Unit (EU) is not found. Possible problems related to this fault are:
 - (a) Captain's EFB EU cannot print.
 - (b) Captain's EFB EU is not able to establish a connection to any Ground Servers.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-15020.

C. Possible Causes

- (1) Wiring
- (2) NFS, M46013
- (3) Captain's EU, M46102

D. Related Data

- (1) WDM 46-13-11

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E. Initial Evaluation

- (1) Do the Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801.
 - (a) If Maintenance Message 46-15020 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-15020 shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Examine the Captain's EFB Fault Log Page for Maintenance Messages (46-19 TASK 801).
 - (a) If you find EFB related Maintenance Messages, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the EFB related problems, do the Repair Confirmation at the end of this task.
 - (b) If you do not find EFB related fault messages, then continue.
- (2) Do the steps that follow to examine the wiring:
 - (a) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (b) Remove the Captain's EU. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NFS	Captain's EU
DM46013AB	DN46102AA
pin DD-1	pin 17T
pin DD-2	pin 14T
pin DD-3	pin 17TR
pin DD-4	pin 14TR

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the Captain's EU. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the Captain's EU. These are the tasks:
 - Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - Electronic Unit Installation, AMM TASK 46-11-03-400-801
 - (a) Do the Repair Confirmation at the end of this task.



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G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15020 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15020 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

———— END OF TASK ————

A34. Maintenance Message 46-15030 (Network File Server (Left) has no input from F/O Electronic Flight Bag EU on Ethernet Bus NSP SP10) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15030.

B. Description

- (1) This Maintenance Message shows when the interface between the NFS and the F/O's EFB Electronic Unit (EU) is not found. Possible problems related to this fault are:
 - (a) F/O's EFB EU cannot print.
 - (b) F/O's EFB EU is not able to establish a connection to any Ground Servers.
- (2) Use this task when the ONS EXISTING FAULTS shows Maintenance Message 46-15030.

C. Possible Causes

- (1) Wiring
- (2) NFS, M46013
- (3) F/O's EU, M46202

D. Related Data

- (1) WDM 46-13-11

E. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15030 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-15030 shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Examine the F/O's EFB Fault Log Page (Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801).
 - (a) If you find EFB related Maintenance Messages, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the EFB related problems, do the Repair Confirmation at the end of this task.
 - (b) If you do not find EFB related Maintenance Messages, then continue.
- (2) Do the steps that follow to examine the wiring:

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- (a) Remove the NFS. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Remove the F/O's EU. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Flight Compartment

NFS	F/O EU
DM46013AB	DN46202AA
pin EE-1	pin 17T
pin EE-2	pin 14T
pin EE-3	pin 17TR
pin EE-4	pin 14TR

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (e) Install the F/O's EU. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the F/O's EU. These are the tasks:
 - Electronic Unit Removal, AMM TASK 46-11-03-000-801
 - Electronic Unit Installation, AMM TASK 46-11-03-400-801
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15030 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15030 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A35. Maintenance Message 46-15040 (Network File Server (Left) has no input from Wireless WAN Unit on Ethernet Bus NSP SP11) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15040.

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B. Description

- (1) This Maintenance Message shows when the interface between the NFS and the Wireless Wide Area Network Unit (WWU) is not found. Possible problems related to this fault are:
 - (a) Airplane Systems cannot connect to any Ground Servers using Gatelink.
- (2) Use this task when Maintenance Message 46-15040 shows on the EXISTING FAULTS page.

C. Possible Causes

- (1) Wiring
- (2) NFS, M46013
- (3) Wireless Wide Area Network Unit (WWU), M44630

D. Related Data

- (1) WDM 46-13-11

E. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15040 does not show, then the fault was intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-15040 shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Do the Message Shows on the EFB Fault Log Page - Fault Isolation, 46-11 TASK 801 to find TWLU related maintenance messages on the EFB Fault Log Page.
 - (a) If you find TWLU related maintenance messages, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the TWLU related problems, do the Repair Confirmation at the end of this task.
 - (b) If you do not find TWLU related maintenance messages, then continue.
- (2) Do the steps that follow to examine the wiring:
 - (a) Remove the NFS. Do this task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (b) Remove the WWU. Do this task: Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801.
 - (c) Do this check of the Ethernet Wiring (WDM 46-13-11):

E/E Compartment/Airplane Crown

NFS	WWU
DM46013AB	DM44360B
pin FF-1	pin 1-2
pin FF-2	pin 1-1
pin FF-3	pin 1-4
pin FF-4	pin 1-3

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS. Do this task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.

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- (e) Install the WWU. Do this task: Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801.
- (f) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the WWU. Do these tasks:
 - Wireless WAN Unit - Removal, AMM TASK 46-11-07-000-801
 - Wireless WAN Unit - Installation, AMM TASK 46-11-07-400-801
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15040 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15040 still shows, continue the Fault Isolation Procedure at the subsequent step.
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A37. Maintenance Message 46-15060 (Network File Server (Left) has no input from Network Extension Device - Domain Guard on Ethernet Bus NSP SP16) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15060.

B. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between the Network Extension Device-Domain Guard (NED-DG) and Ethernet Bus NSP SP16 of the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-15060.
 - (a) The fault data for Maintenance Message 46-15060 is: Network File Server (Left) has no input from Network Extension Device - Domain Guard on Ethernet Bus NSP SP16.

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013
- (4) Network Extension Device, M46010

D. Related Data

- (1) WDM 46-13-11

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E. Initial Evaluation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no LRUs, and no Maintenance Messages are present.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If EXISTING FAULTS does not show Maintenance Message 46-15060, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-15060 shows, then continue.
- (2) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > ETHERNET (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION NED-DG shows the status: DOWN, then do: Fault Isolation Procedure - Ethernet Bus, that follows.
 - (b) If END CONNECTION NED-DG shows the status: HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - Ethernet Bus

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the breaker, then do the Repair Confirmation at the end of this task.
- (2) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do the steps that follow to examine the wiring:
 - (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).



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- (b) Remove the NFS, M46013 (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
- (c) Do this check of the Ethernet Wiring (WDM 46-13-11, WDM 46-13-12):

E/E BAY

NFS, M46013 M46013AB	NED-DG, M46010 DM46010B
pin LL-1	pin 1-2
pin LL-3	pin 1-4
pin LL-2	pin 1-1
pin LL-4	pin 1-3

- 1) If you find a problem, then repair the wiring.
- (d) Install the NFS, M46013 (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (e) Connect the electrical connector, DM46010B to the NED-DG M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
- (4) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) Allow approximately five minutes for the NFS to reboot.
- (b) Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
 - (a) Do the Repair Confirmation at the end of this task.
- (6) Replace the NED-DG, M46010. These are the tasks:
 - Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
 - (a) Do the Repair Confirmation at the end of this task.
- (7) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.

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- (a) Make sure that 46 NED OPC is serviceable.
- (b) Make sure that 46 NFS OPC is serviceable.
- (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.

- 1) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 2) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46-15060 does not show, then you corrected the problem.
 - (b) If Maintenance Message 46-15060 still shows, continue the Fault Isolation Procedure at the subsequent step.
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A39. Maintenance Message 46-15082 (Network Extension Device - Domain Guard has no input from Left AIMS on Ethernet Bus 2) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15082.

B. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between Port 2 of the Network Extension Device-Domain Guard (NED-DG) and the Left AIMS Cabinet is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-15082.
- (a) The fault data for Maintenance Message 46-15082 is: Network Extension Device - Domain Guard has no input from Left AIMS on Ethernet Bus 2.

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network Extension Device-Domain Guard (NED-DG), M46010

D. Related Data

- (1) WDM 46-13-12

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E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15082 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-15082 still shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of the task.
- (2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring (WDM 46-13-12):
 - (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
 - (b) Disconnect or electrically isolate the Ethernet Wiring at electrical connector D6633 from the left AIMS Cabinet, M31101 (Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801).
 - (c) Do a check of the Ethernet Wiring between the AIMS-L and NED-DG as follows (WDM 46-13-12):

E/E BAY

AIMS-L, M31101	NED-DG, M46010
D6633	DM46010B
pin 41	pin 2-1
pin 40	pin 2-3
pin 38	pin 2-2
pin 37	pin 2-4

- (d) Connect the electrical connector, DM46010B to the NED-DG, M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
 - (e) Re-connect the Ethernet Wiring at electrical connector D6633 from the Left AIMS Cabinet, M31101 (Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801).

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- (4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) Allow approximately one minute for the NED-DG to reboot.
- (b) Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (a) Do the Repair Confirmation at the end of this task.
- (6) Replace the NED-DG, M46010. Do these tasks:
- Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46-15082 does not show, then you corrected the fault.
- (b) If Maintenance Message 46-15082 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A40. Maintenance Message 46-15092 (Network Extension Device - Domain Guard has no input from Right AIMS on Ethernet Bus 3) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15092.

B. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between Port 3 of the Network Extension Device-Domain Guard (NED-DG) and the Right AIMS Cabinet is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-15092.
- (a) The fault data for Maintenance Message 46-15092 is: Network Extension Device - Domain Guard has no input from Right AIMS on Ethernet Bus 3.

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) Network Extension Device-Domain Guard (NED-DG), M46010

D. Related Data

- (1) WDM 46-13-12

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E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46-15092 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-15092 still shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of the task.
- (2) Open this circuit breaker and install safety tag:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring (WDM 46-13-12):
 - (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
 - (b) Disconnect or electrically isolate the Ethernet Wiring at electrical connector D6733 from the right AIMS Cabinet, M31201 (Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801).
 - (c) Do a check of the Ethernet Wiring between the AIMS-R and NED-DG as follows (WDM 46-13-12):

E/E BAY

AIMS-R, M31201	NED-DG, M46010
D6733	DM46010B
pin 35	pin 3-1
pin 34	pin 3-3
pin 32	pin 3-2
pin 31	pin 3-4

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- (d) Connect the electrical connector, DM46010B to the NED-DG, M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
 - (e) Re-connect the Ethernet Wiring at electrical connector D6733 from the Left AIMS Cabinet, M31201 (Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801).
- (4) Remove the safety tag and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

- (a) Allow approximately one minute for the NED-DG to reboot.
 - (b) Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (a) Do the Repair Confirmation at the end of this task.
- (6) Replace the NED-DG, M46010. Do these tasks:
- Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
- (a) Do the Repair Confirmation at the end of this task.

G. Repair Confirmation

- (1) Do a check of the EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15092 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15092 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

— END OF TASK —

A41. Maintenance Message 46-15102 (Network Extension Device - Domain Guard has no input from Ground Proximity Warning Computer on Ethernet Bus 4) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-15102.

B. Description

- (1) The NFS shows this Maintenance Message when Ethernet Communication between Port 4 of the Network Extension Device-Domain Guard (NED-DG) and the Ground Proximity Warning Computer is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-15102.
 - (a) The fault data for Maintenance Message 46-15102 is: Network Extension Device - Domain Guard has no input from Ground Proximity Warning Computer on Ethernet Bus 4.

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C. Possible Causes

- (1) Software
- (2) Wiring
- (3) Ground Proximity Warning Computer (GPWC), M34004

D. Related Data

- (1) WDM 46-13-12

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46-15102 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-15102 still shows, then do the Fault Isolation Procedure below.

F. Fault Isolation Procedure

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	12	C34442	GROUND PROX WARNING COMPUTER

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of the task.

- (2) Open these circuit breakers and install safety tags:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
---	---	C46414	NED-DG

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
E	12	C34442	GROUND PROX WARNING COMPUTER



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (3) Do this check of the wiring (WDM 46-13-12):

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- (a) Disconnect electrical connector DM46010B from the NED-DG, M46010 (Network Extension Device Removal, AMM TASK 46-13-02-000-801).
- (b) Disconnect or electrically isolate the Ethernet Wiring at electrical connector DM34004AB from the GPWC, M34004 (Input/Output Module (IOM) Removal, AMM TASK 31-41-11-000-801).
- (c) Do a check of the Ethernet Wiring between the GPWC and NED-DG as follows (WDM 46-13-12):

E/E BAY

GPWC, M34004 DM34004AB	NED-DG, M46010 DM46010B
pin B4	pin 4-1
pin A5	pin 4-3
pin A4	pin 4-2
pin B5	pin 4-4

- (d) Connect the electrical connector, DM46010B to the NED-DG, M46010 (Network Extension Device Installation, AMM TASK 46-13-02-400-801).
 - (e) Re-connect the Ethernet Wiring at electrical connector D6733 from the Left AIMS Cabinet, M31201 (Input/Output Module (IOM) Installation, AMM TASK 31-41-11-400-801).
- (4) Remove the safety tags and close these circuit breakers:

Left Power Management Panel, P110

Row	Col	Number	Name
---	---	C46414	NED-DG

Overhead Circuit Breaker Panel, P11

Row	Col	Number	Name
E	12	C34442	GROUND PROX WARNING COMPUTER

- (a) Allow approximately one minute for the NED-DG and GPWC to reboot.
 - (b) Do the Repair Confirmation at the end of this task.
- (5) Install a new Client Credential for NED-DG and GPWC (Onboard Network System Client Credentials Check, AMM TASK 46-13-00-750-802).
- (a) Do the Repair Confirmation at the end of this task.
- (6) Replace the GPWC, M34004. Do these tasks:
- Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801
 - Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (7) Replace the NED-DG, M46010. Do these tasks:
- Network Extension Device Removal, AMM TASK 46-13-02-000-801
 - Network Extension Device Installation, AMM TASK 46-13-02-400-801
- (a) Do the Repair Confirmation at the end of this task.

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G. Repair Confirmation

- (1) Do a check of the EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-15102 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-15102 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

———— END OF TASK ————

A45. Maintenance Message 46-16010 (Network File Server (Left) has no input from Left AIMS on General Purpose #1 Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16010.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 communication between the (AIMS-L) General Purpose BUS#1, and the NFS is unserviceable.
- (2) Use this task when ONS Existing Faults shows Maintenance Message 46-16010.
 - (a) The fault data for Maintenance Message 46-16010 is: Network File Server (Left) has no input from Left AIMS on General Purpose #1 Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46-16010 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-16010 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.

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- 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46-16010 does not show, then you corrected the fault.
 - b) If Maintenance Message 46-16010 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - GP#1 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - GP#1 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the breaker, do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - 1) If Maintenance Message 46-16010 does not show, then you corrected the problem.
 - 2) If Maintenance Message 46-16010 still shows, then continue.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#1-L BUS at the AIMS-L Cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove the Left Satellite Data Unit, SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.

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- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46013, E4-2 DM46013AC	AIMS-L, M31101, E3-1 D6618
pin A1	pin 23
pin B1	pin 24

- (g) If you find a problem with the wiring, then repair the connection.
 - (h) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (i) Re-connect the GP#1-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
 - (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (k) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
 - (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
 - (m) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801
- (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
- NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- 1) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (d) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.



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H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16010 does not show, then you corrected the problem.
 - (b) If Maintenance Message 46-16010 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A46. Maintenance Message 46-16020 (Network File Server (Left) has no input from Left AIMS on General Purpose #3 Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16020.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-L) General Purpose BUS #3 and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16020.
 - (a) The fault data for Maintenance Message 46-16020 is: Network File Server (Left) has no input from Left AIMS on General Purpose #3 Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46-16020 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-16020 still shows, then continue.
- (2) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46-16020 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.

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- (b) If Maintenance Message 46-16020 still shows, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - GP#3 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - GP#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#3 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#3-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove Transceiver WXR-L, M34116. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (e) Remove GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Remove ATC-L Transponder, M34107. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (g) Remove the Left Satellite Data Unit, SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (h) Do this ARINC 429 check (SSM 46-13-11):

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E/E BAY

**NFS, M46013,
E4-2
DM46013AC**

**AIMS-L,
M31101, E3-1
D6618**

pin A2 pin 51

pin B2 pin 52

- (i) If you find a problem, then repair the connection.
- (j) Re-install the NFS, M46013. This is the Task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (k) Re-connect the GP#3-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (l) Re-install EFB EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (m) Re-install the ATC-L Transponder, M34107. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
- (n) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (o) Re-install Transceiver WXR-L, M34116. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
- (p) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
- (q) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure that the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (e) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

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H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16020 does not show, then you corrected the problem.
 - (b) If Maintenance Message 46-16020 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A47. Maintenance Message 46-16030 (Network File Server (Left) has no input from Left AIMS on General Purpose #4 Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16030.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-L) General Purpose BUS #4 and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16030.
 - (a) The fault data for Maintenance Message 46-16030 is: Network File Server (Left) has no input from Left AIMS on General Purpose #4 Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-21
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46-16030 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-16030 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.

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- a) If Maintenance Message 46-16030 does not show, then you corrected the fault.
 - b) If Maintenance Message 46-16030 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - GP#4 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - GP#4 Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	12	C31609	AIMS L-1
B	13	C31611	AIMS L-2
B	14	C31617	AIMS L-3
B	15	C31619	AIMS L-4

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breakers, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#4 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#4-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (c) Remove the EFB EU-L, N46102. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.

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- (d) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46013, E4-2 DM46013AC	AIMS-L, M31101, E3-1 D6618
pin A3	pin 53
pin B3	pin 54

- (e) If you find a problem, then repair the connection.
- (f) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (g) Re-connect the GP#4-L Bus at the AIMS-L Cabinet, M31101, at connector D6618.
- (h) Re-install EFB EU-L, N46102. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (i) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
- (a) Make sure that 46 NED OPC is serviceable.
- (b) Make sure that 46 NFS OPC is serviceable.
- (c) Make sure the two parts agree with your airline's required software record.
- NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- (d) If you find a problem, then install the correct software part, (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- (e) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46-16030 does not show, then you corrected the fault.



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- (b) If Maintenance Message 46-16030 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

———— **END OF TASK** ————

A48. Maintenance Message 46-16040 (Network File Server (Left) has no input from Left AIMS on IRS Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16040.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the AIMS-L Inertial Reference Bus and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16040.
- (a) The fault data for Maintenance Message 46-16040 is: Network File Server (Left) has no input from Left AIMS on IRS Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-31
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46-16040 does not show, then the fault is intermittent.
- 1) Corrective action for other Maintenance Messages shown is necessary.
- (b) If Maintenance Message 46-16040 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
- (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the applicable FIM Tasks for the messages that show.
- 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
- a) If Maintenance Message 46-16040 does not show, then you corrected the fault.
- b) If Maintenance Message 46-16040 still shows, then continue.

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- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-L shows the status DOWN, then do: Fault Isolation Procedure - IRS Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - IRS Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	9	C34427	MMR C

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breakers, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do these steps to examine the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the IRS Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the IRS BUS at the AIMS-L Cabinet, M31101, at connector D6605.
- (c) Remove WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (d) Remove the TCAS, M34006. This is the task: TCAS Computer Removal, AMM TASK 34-45-01-000-801.
- (e) Remove the EFB EU-L, N46102. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (f) Remove the Left ATC/Mode S Transponder, M34107. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.

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- (g) Remove the SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (h) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

**NFS, M46013,
E4-2
DM46013AC**

**AIMS-L,
M31101, E3-1
D6606**

pin A4	.....	pin 34
pin B4	.....	pin 58

- (i) If you find a problem, then repair the connection.
 - (j) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (k) Re-connect the IRS Bus at the AIMS-L Cabinet, M31101, at connector D6605.
 - (l) Re-install WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
 - (m) Re-install the TCAS, M34006. This is the task: TCAS Computer Installation, AMM TASK 34-45-01-400-801.
 - (n) Re-install EFB EU-R, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (o) Re-install the left ATC/Mode S Transponder, M34107. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
 - (p) Re-install the SDU-L, M23106. This is the Task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
 - (q) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.

NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001

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- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16040 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-16040 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A50. Maintenance Message 46-16060 (Network File Server (Left) has no input from Left AIMS on CMCS Center Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16060.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 is unserviceable between communication between the Central Maintenance Computer System (CMCS) Center Bus and the NFS.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16060.
 - (a) The fault data for Maintenance Message 46-16060 is: Network File Server (Left) has no input from Left AIMS on CMCS Center Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 45-45-31
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46-16060 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-16060 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.

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- (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46-16060 does not show, then you corrected the fault.
 - b) If Maintenance Message 46-16060 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION CMCS C shows the status DOWN, then do: Fault Isolation Procedure - CMCS C Bus Fail, that follows.
 - (b) If END CONNECTION CMCS-C shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - CMCS C Bus Fail

- (1) Make sure that these circuit breakers are closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
A	9	C34427	MMR C

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breakers, then do the Repair Confirmation at the end of this Task.



CAUTION

DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the CMCS C Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

 - (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
 - (b) Electrically disconnect or isolate the CMCS Center Bus at connector D6606, at the Left AIMS Cabinet, M31101.

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- (c) Remove the Center MMR, M34610. This is the task: Receiver for ILS - Removal, AMM TASK 34-31-01-000-801.
- (d) Remove the Center RA, M34312, at shelf E5-3. This is the task: Radio Altimeter Transceiver Removal, AMM TASK 34-33-01-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46013, E4-2 DM46013AC	AIMS-L, M31101, E3-1 D6606
pin C4	pin 51
pin D4	pin 52

- (g) If you find a problem with the wiring, then repair the connection.
 - (h) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (i) Re-connect the CMCS Center Bus at connector D6606, at the Left AIMS Cabinet, M31101.
 - (j) Re-install the Center MMR, M34610. This is the task: Receiver for ILS - Installation, AMM TASK 34-31-01-400-801.
 - (k) Re-install the Center RA, M34312, at shelf E5-3. This is the task: Radio Altimeter Transceiver Installation, AMM TASK 34-33-01-400-801.
 - (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
 - (m) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001

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- Network File Server Installation, AMM TASK 46-13-01-400-801-001

(a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16060 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-16060 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A51. Maintenance Message 46-16110 (Network File Server (Left) has no input from Right AIMS on General Purpose #1 Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16110.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-R) General Purpose BUS #1, and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16110.
 - (a) The fault data for Maintenance Message 46-16110 is: Network File Server (Left) has no input from Right AIMS on General Purpose #1 Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) If Maintenance Message 46-16110 does not show, then the fault is intermittent.
 - 1) Corrective action for other Maintenance Messages shown is necessary.
 - (b) If Maintenance Message 46-16110 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the applicable FIM Tasks for the messages that show.

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- 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46-16110 does not show, then you corrected the fault.
 - b) If Maintenance Message 46-16110 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - GP#1 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - GP#1 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install the or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#1R Bus at the AIMS-R Cabinet, M31201, at connector D6706.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove the Right ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

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E/E BAY

NFS, M46013, E4-2 DM46013AC	AIMS-R, M31201, E2-1 D6718
pin A6	pin 23
pin B6	pin 24

- (g) If you find a problem, then repair the connection.
- (h) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (i) Re-connect the GP#1R Bus at the AIMS-R Cabinet, M31201, at connector D6706.
 - (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (k) Re-install the left ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
 - (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (m) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16110 does not show, then you corrected the fault.

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- (b) If Maintenance Message 46-16110 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

———— **END OF TASK** ————

A52. Maintenance Message 46-16120 (Network File Server (Left) has no input from Right AIMS on General Purpose #3 Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16120.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-R) General Purpose BUS #3 and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16120.
- (a) The fault data for Maintenance Message 46-16120 is: Network File Server (Left) has no input from Right AIMS on General Purpose #3 Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
- 1) If Maintenance Message 46-16120 does not show, then the fault is intermittent.
- a) Corrective action for other Maintenance Messages shown is necessary.
- 2) If Maintenance Message 46-16120 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
- (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
- 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
- a) If Maintenance Message 46-16120 does not show, then you corrected the fault.

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- b) If Maintenance Message 46-16120 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - GP#3 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - GP#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11).

NOTE: You must remove or electrically disconnect all LRUs on the GP#3 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#3 R Bus at the AIMS-R Cabinet, M31201, at connector D6706 (AMM PAGEBLOCK 31-41-11/401).
- (c) Remove two transponders, ATC-L, M34107, and ATC-R, M34207. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (d) Remove two transceivers, WXR-L M34116, and WXR-R M34216. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (e) Remove GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):



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E/E BAY

**NFS, M46013,
E4-2
DM46013AC**

**AIMS-R,
M31201, E2-1
D6718**

pin A7 pin 51

pin B7 pin 52

- (g) If you find a problem, then repair the connection.
 - (h) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (i) Re-connect the GP#3 R Bus at the AIMS-R Cabinet, M31201, at connector D6706 (AMM PAGEBLOCK 31-41-11/401).
 - (j) Re-install the ATC-L M34107, and ATC-R M34207 Transponders. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
 - (k) Re-install two transceivers, WXR-L, M34116 and WXR-R, M34216. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
 - (l) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
 - (m) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
- (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
- NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46-16120 does not show, then you corrected the fault.

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- (b) If Maintenance Message 46-16120 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A53. Maintenance Message 46-16130 (Network File Server (Left) has no input from Right AIMS on General Purpose #4 Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16130.

B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the (AIMS-R) General Purpose BUS #4, and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16130.
- (a) The fault data for Maintenance Message 46-16130 is: Network File Server (Left) has no input from Right AIMS on General Purpose #4 Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-23
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.
- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
- 1) If Maintenance Message 46-16130 does not show, then the fault is intermittent.
- a) Corrective action for other Maintenance Messages shown is necessary.
- 2) If Maintenance Message 46-16130 still shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
- (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the FIM Tasks for the messages that show.
- 1) After you correct the AIMS and ARINC 429 related faults, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
- a) If Maintenance Message 46-16130 does not show, then you corrected the fault.

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- b) If Maintenance Message 46-16130 still shows, then continue.
- (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - GP#4 Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - GP#4 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#4 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install the or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the GP#4 Bus at the AIMS-R Cabinet, M31201, at connector D6718.
- (c) Remove EFB EU-R, N46202. This is the Task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46013,	AIMS-R,
E4-2	M31201, E2-1
DM46013AC	D6718
pin A8	pin 53
pin B8	pin 54

- (e) If you find a problem, then repair the connection.

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- (f) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
- (g) Re-connect the GP#4 Bus at the AIMS-R Cabinet, M31201, at connector D6718.
- (h) Re-install EFB EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
- (i) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16130 does not show, then you corrected the fault.
 - (b) If Maintenance Message 46-16130 still shows, continue the Fault Isolation Procedure at the subsequent step.
NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— END OF TASK —————

A54. Maintenance Message 46-16140 (Network File Server (Left) has no input from Right AIMS on IRS Bus (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16140.

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B. Description

- (1) The NFS shows this Maintenance Message when ARINC 429 Communication between the AIMS-R Inertial Reference Bus and the NFS is unserviceable.
- (2) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16140.
 - (a) The fault data for Maintenance Message 46-16140 is: Network File Server (Left) has no input from Right AIMS on IRS Bus (429).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) NFS, M46013

D. Related Data

- (1) WDM 31-41-32
- (2) WDM 46-13-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

 - (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46-16140 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-16140 still shows, then continue.
 - (2) Go to the MAT and look for active maintenance messages associated with the AIMS and ARINC 429.
 - (a) If you find active maintenance messages associated with the AIMS and ARINC 429, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related faults, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46-16140 does not show, then you corrected the fault.
 - b) If Maintenance Message 46-16140 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the AIMS and ARINC 429, then continue.
 - (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
 - (a) If END CONNECTION AIMS-R shows the status DOWN, then do: Fault Isolation Procedure - IRS Bus Fail, that follows.
 - (b) If END CONNECTION AIMS-R shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

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F. Fault Isolation Procedure - IRS Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 46-13-11):

NOTE: You must remove or electrically disconnect all LRUs on the IRS Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, re-install the or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the IRS Bus at the AIMS-R Cabinet, M31201, at connector D6607.
- (c) Remove WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Removal, AMM TASK 34-43-02-000-801.
- (d) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (e) Remove the MMR-L, M34410. This is the task: Receiver for ILS - Removal, AMM TASK 34-31-01-000-801.
- (f) Remove the EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (g) Remove the Right ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Removal, AMM TASK 34-53-01-000-801.
- (h) Remove the SDU-L, M23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (i) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46013,	AIMS-R,
E4-2	M31201, E2-1
DM46013AC	D6706
pin C1	pin 34
pin D1	pin 58

- (j) If you find a problem with the wiring, then repair the connection.

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- (k) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (l) Re-connect the IRS Bus at the AIMS-R Cabinet, M31201, at connector D6607.
 - (m) Re-install WXR-L, M34116, and WXR-R, M34216. This is the task: WXR Transceiver Installation, AMM TASK 34-43-02-400-801.
 - (n) Re-install the GPWC, M34004. This is the task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
 - (o) Re-install the MMR-L, M34410. This is the task: Receiver for ILS - Installation, AMM TASK 34-31-01-400-801.
 - (p) Re-install EFB EU-R, N46102. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (q) Re-install the Right ATC/Mode S Transponder, M34207. This is the task: ATC/Mode S Transponder Installation, AMM TASK 34-53-01-400-801.
 - (r) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
 - (s) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801.
- (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure that the two parts agree with your airline's required software record.
- NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
- (d) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
- 1) Do the Repair Confirmation at the end of this task.
- (2) Replace the NFS. These are the tasks:
- Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
- (a) If Maintenance Message 46-16140 does not show, then you corrected the fault.

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- (b) If Maintenance Message 46-16140 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

— END OF TASK —

A56. Maintenance Message 46-16270 (Network File Server (Left) has no input from Multi-Mode Receiver (left) on Output Bus 3 (429)) Shows - Fault Isolation

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16270.

B. Description

- (1) Use this task when ONS EXISTING FAULTS shows Maintenance Message 46-16270.

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) MMR-L, M34410
- (4) NFS, M46013

D. Related Data

- (1) WDM 46-13-11
- (2) WDM 34-58-11
- (3) SSM 46-13-11

E. Initial Evaluation

- (1) Do a check of ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

- (a) Set the browser to show EXTENDED MAINTENANCE > EXISTING FAULTS > ATA SYSTEM > "46 Onboard Network System" > FAULTS.
 - 1) If Maintenance Message 46-16270 does not show, then the fault is intermittent.
 - a) Corrective action for other Maintenance Messages shown is necessary.
 - 2) If Maintenance Message 46-16270 shows, then continue.
- (2) Go to the MAT and look for active maintenance messages associated with the MMR and ARINC 429.
 - (a) If you find active maintenance messages associated with the MMR and ARINC 429, then do the applicable FIM Tasks for the messages that show.
 - 1) After you correct the AIMS and ARINC 429 related problems, click refresh on the browser, or exit and re-enter the ONS EXISTING FAULTS page.
 - a) If Maintenance Message 46-16270 does not show, then you corrected the fault.
 - b) If Maintenance Message 46-16270 still shows, then continue.
 - (b) If there are no active maintenance messages associated with the MMR and ARINC 429, then continue.

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- (3) Using ONS, make your selection: EXTENDED MAINTENANCE > INPUT MONITORING > NFS > 429 RECEIVE (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803).
- (a) If END CONNECTION MMR-L shows the status DOWN, then do: Fault Isolation Procedure - OUT#3 Bus Fail, that follows.
- (b) If END CONNECTION MMR-L shows the status HIGH, LOW, UP, or words other than DOWN, then do: Fault Isolation Procedure - NFS Configuration, that follows.

F. Fault Isolation Procedure - OUT#3 Bus Fail

- (1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) If you closed the circuit breaker, then do the Repair Confirmation at the end of this task.



DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (2) Do this check of the wiring (WDM 34-58-11):

NOTE: You must remove or electrically disconnect all LRUs on the GP#1 Bus before you do a continuity check. Use the WDM to tell which LRUs are on the bus. After the check, then re-install or connect the LRUs.

- (a) Remove the NFS, M46013. This is the task: Network File Server Removal, AMM TASK 46-13-01-000-801-001.
- (b) Isolate the OUT#3 BUS at the MMR-L Cabinet, M34410, at connector DM34410AB.
- (c) Remove the EFB EU-L, N46102, and EFB EU-R, N46202. This is the task: Electronic Unit Removal, AMM TASK 46-11-03-000-801.
- (d) Remove the Left Satellite Data Unit, SDU-LM23106. This is the task: Satellite Data Unit Removal, AMM TASK 23-15-10-000-801.
- (e) Remove the GPWC, M34004. This is the task: Ground Proximity Warning Computer Removal, AMM TASK 34-46-01-000-801.
- (f) Do this ARINC 429 check (SSM 46-13-11):

E/E BAY

NFS, M46013,	MMR-L, M34410,
E4-2	E1-2
DM46013AC	D6618
pin C3	pin E9
pin D3	pin F9

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- (g) If you find a problem with the wiring, then repair the connection.
- (h) Re-install the NFS, M46013. This is the task: Network File Server Installation, AMM TASK 46-13-01-400-801-001.
 - (i) Re-connect the OUT#3 Bus at the MMR-L Cabinet, M34410, at connector DM34410AB.
 - (j) Re-install EFB EU-L, N46102, and EU-R, N46202. This is the task: Electronic Unit Installation, AMM TASK 46-11-03-400-801.
 - (k) Re-install the SDU-L, M23106. This is the task: Satellite Data Unit Installation, AMM TASK 23-15-10-400-801.
 - (l) Re-install the GPWC, M34004. To install it, do this task: Ground Proximity Warning Computer Installation, AMM TASK 34-46-01-400-801.
- (m) Do the Repair Confirmation at the end of this task.
- (3) Replace the NFS. These are the Tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

G. Fault Isolation Procedure - NFS Configuration

- (1) Do a check of ONS Software. This is the task: Network File Server Software Check, AMM TASK 46-13-01-860-801
 - (a) Make sure that 46 NED OPC is serviceable.
 - (b) Make sure that 46 NFS OPC is serviceable.
 - (c) Make sure the two parts agree with your airline's required software record.
NOTE: At this step in the process, it is very likely that at least one of the two parts is unserviceable.
 - 1) If you find a problem, then install the correct software part (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (d) Do the Repair Confirmation at the end of this task.
- (2) Replace the MMR-L, M34410. These are the tasks:
 - Receiver for ILS - Removal, AMM TASK 34-31-01-000-801
 - Receiver for ILS - Installation, AMM TASK 34-31-01-400-801
- (a) Do the Repair Confirmation at the end of the task.
- (3) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of the task.

H. Repair Confirmation

- (1) Do a check of the ONS EXISTING FAULTS (Onboard Network System NFS Message Check, AMM TASK 46-13-00-720-801).
 - (a) If Maintenance Message 46-16270 does not show, then you corrected the problem.



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- (b) If Maintenance Message 46-16270 still shows, continue the Fault Isolation Procedure at the subsequent step.

NOTE: ONS is serviceable only when the EXISTING FAULTS page shows no Maintenance Messages.

————— **END OF TASK** —————

A57. ONS Maintenance Browser Connection Problems - Fault Isolation

A. Description

- (1) Use this FIM task when you cannot connect to the NFS web-based server.
- (a) The conditions that follow can show when a laptop is connected to an NFS port but you cannot get access to the server or maintenance browser. It is possible to see one or more of these messages:
- HTTP ERROR: 404
 - “The Page cannot be displayed”
 - “Network Timeout”
 - “No Connection to the Internet is currently available”
 - The chain-link icon on the top right is broken

B. Possible Causes

- (1) NFS web service problem
- (2) Maintenance laptop network configuration settings
- (3) Cable from laptop to airplane port
- (4) Network File Server, M46013
- (5) Wiring from airplane port to the NFS

C. Related Data

- (1) Onboard Network System Maintenance Laptop Connection, AMM TASK 46-13-00-480-801.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- (a) Let the NFS reboot. Typically, this takes approximately five minutes, but not more than ten.
- (b) Set your web browser to show the ONS Maintenance menu (AMM TASK 46-13-00-480-801).
- 1) Do the Repair Confirmation at the end of the task.
- (2) Remove power from the laptop and re-supply power.

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- (a) Do the Repair Confirmation at the end of the task.
- (3) Examine the cables for loose connections or attachments that are not correct.
 - (a) Do the Repair Confirmation at the end of the task.
- (4) Make sure of correct maintenance laptop configuration settings:
 - (a) Network Settings - Ethernet Port is enabled.
 - (b) IP Address Automatically is set to YES.
 - (c) DNS is set to AUTOMATIC.
 - (d) Browser Settings - no proxy servers are configured.
 - (e) Do the Repair Confirmation at the end of the task.
- (5) Examine the front panel of the NFS, M46013.
 - (a) If the POWER light is not on, do the steps that follow:
 - 1) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

- 2) If the fault continues, examine the wiring between the circuit breaker and the NFS for 115V ac (WDM 46-13-11).
 - 3) Repair any wiring problems that you find.
 - 4) Do the Repair Confirmation at the end of the task.
- (b) If the FAULT light is on, replace the Network File Server. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - 1) Do the Repair Confirmation at the end of the task.
- (6) If the failure to connect was on a cabin port, connect the laptop to the flight deck port.
 - (a) If you can connect to the ONS Maintenance Browser with the flight deck port, then do the steps that follow:
 - 1) Do a software configuration check and make sure the correct NFS and NED OPC parts are installed. Do this task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - 2) Do a check with your engineering department to make sure the laptop is correctly configured to connect to cabin ports.

NOTE: Typically, the cabin ports allow access only using authorized tools.
 - 3) Examine the wiring from the cabin port to the NFS (WDM 46-13-11).
 - 4) Repair any problems that you find.
 - 5) Do the Repair Confirmation at the end of the task.

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- (7) If the failure to connect was on the flight deck port, connect the laptop to the NFS front panel port.
 - (a) If you can connect to the ONS Maintenance Browser with the NFS front panel port, then do the steps that follow:
 - 1) Do a software configuration check and make sure the correct NFS and NED OPC parts are installed. Do this task: (Network File Server Software Check, AMM TASK 46-13-01-860-801).
 - 2) Examine the wiring from the flight deck port to the NFS (WDM 46-13-11).
 - 3) Repair any problems that you find.
 - 4) Do the Repair Confirmation at the end of the task.
- (8) Replace the Network File Server, M46013. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of the task.

E. Repair Confirmation

- (1) Set your web browser to show the ONS Maintenance menu (AMM TASK 46-13-00-480-801).
 - (a) If the ONS Maintenance main menu shows, then you corrected the problem.
 - (b) If the ONS Maintenance menu does not show, then continue the Fault Isolation Procedure at the subsequent step.

————— END OF TASK —————

A58. Dataload State Problems - Fault Isolation

A. Description

- (1) Use this task when a data load page shows the words: Load request is rejected due to inappropriate dataload state.
- (2) This on-screen message can show when a data load attempt was rejected, because the NFS did not receive the aircraft-on-ground discrete signal.
 - (a) The system rejects data and software installation when it senses the airplane is not on the ground.
 - (b) The message can show when the air/ground discrete indicates the airplane is in the air when an installation was attempted.
- (3) This problem does not cause a fault log message.

B. Possible Causes

- (1) Wiring
- (2) AIR/GND Relay, K32120
- (3) Network File Server (NFS), M46013

C. Related Data

- (1) WDM 32-09-15
- (2) WDM 46-13-11.

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D. Initial Evaluation

- (1) During a software installation, (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801) , the installation failed, and shows the message: Load request is rejected due to inappropriate dataload state.
 - (a) To correct this problem, then do the Fault Isolation Procedure that follows.

E. Fault Isolation Procedure

- (1) Open this circuit breaker:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	13	C32628	AIR/GROUND 1

- (2) Do a check of ONS Input Discretes for the NFS, (Onboard Network System Input Monitoring Check, AMM TASK 46-13-00-720-803). These are the steps:
 - (a) Make your selections: Home > Extended Maintenance > Input Monitoring > NFS.
 - (b) In the Confirmation box, make your selection: Continue.
 - (c) Make your selection: Input Discretes.

NOTE: Allow up to 60 seconds for the result to show.
 - (d) Make sure that the row showing discrete 6, AIR/GND RELAY, shows the word OPEN.
- (3) Remove the safety tag and close this circuit breaker:

Overhead Circuit Breaker Panel, P11

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
G	13	C32628	AIR/GROUND 1

- (4) Again, do a check of ONS Input Discretes for the NFS, (AMM TASK 46-13-00-720-803). These are the steps:
 - (a) Make your selections: Home > Extended Maintenance > Input Monitoring > NFS.
 - (b) In the Confirmation box, make your selection: Continue.
 - (c) Make your selection: Input Discretes.

NOTE: Allow up to 60 seconds for the result to show.
 - (d) If the row showing discrete 6, AIR/GND RELAY, shows the word GROUND, then the NFS and wiring are serviceable, and the fault is intermittent.
 - (e) If the result shows OPEN, or Unavailable, then continue.
- (5) Do the wiring check that follows.
 - (a) Remove the NFS, M46013 (Network File Server Removal, AMM TASK 46-13-01-000-801-001).
 - (b) Remove the Air/Ground Relay, K32119 (Weight-on-Wheels (WOW) Card Removal, AMM TASK 32-09-02-000-801).

EE/ BAY to P110 Breaker Panel

	M46013, E4-2	A/G RLY, K32119	
E4-2	DM46013AA	DK32119	
	K5	B1	0

- 1) If you find a problem, then repair the wiring.

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- (d) Install the NFS, M46013 (Network File Server Installation, AMM TASK 46-13-01-400-801-001).
- (e) Install the Air/Ground Relay, K32119 (Weight-on-Wheels (WOW) Card Installation, AMM TASK 32-09-02-400-801).
- (6) Repeat the software installation, or the process that caused the message (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801).
 - (a) If the software installation is successful, then you corrected the problem.
 - (b) If the message shows again, then continue.
- (7) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001

F. Repair Confirmation

- (1) When a software installation process is successful, and does not show the message: Load request is rejected due to inappropriate dataload state, then you corrected the problem.

————— END OF TASK —————

A59. Staging Screens Problems - Fault Isolation

A. Description

- (1) Use this task when the MSD staging, or data load page shows the message that follows:
 - (a) Validity checks failed for a LSAP while attempting to stage to MSD or Dataload.
- (2) This condition does not cause a fault log message.
- (3) This message can show when a loadable software airplane part (LSAP) fails validation. Typically, the message shows during one of these steps:
 - (a) When you stage an LSAP to the Mass Storage Device (MSD).
 - (b) When you data-load an LSAP to an LRU that interfaces with ONS.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) During a software installation or staging, (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801, or Mass Storage Device Software Part Installation, AMM TASK 46-13-00-470-802) , the installation failed, and shows the message: Validity checks failed for a LSAP while attempting to stage to MSD or Dataload.
 - (a) To correct this problem, do the Fault Isolation Procedure that follows.

D. Fault Isolation Procedure

- (1) Open and close this circuit breaker:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

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This circuit breaker is inoperative and should remain open:

Right Power Management Panel, P210

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	11	C46419	NFS - R (INOP)

NOTE: It is necessary to wait from three to five minutes for a complete NFS reboot.

- (a) Do the Repair Confirmation at the end of the task.
- (2) Install NFS NetManager, NFS Operating System (OS) and NFS OPC software parts. Do this task: (Network File Server Software Installation, AMM TASK 46-13-01-470-801).
 - (a) Do the Repair Confirmation at the end of the task.
- (3) Reimage the NFS. Do this task: (Network File Server Reimage Procedure, AMM TASK 46-13-01-470-802).
 - (a) Do the Repair Confirmation at the end of the task.
- (4) Replace the NFS. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
 - (a) Do the Repair Confirmation at the end of the task.

E. Repair Confirmation

- (1) When a software installation, or MSD staging process is successful, and does not show the message: Validity checks failed for a LSAP while attempting to stage to MSD or Dataload, then you corrected the problem.
 - (a) Repeat the software installation or staging that caused the problem (for example, Onboard Network System LRU Software Installation, AMM TASK 46-13-00-470-801, or Mass Storage Device Software Part Installation, AMM TASK 46-13-00-470-802).
 - 1) If the software installation is successful, then you corrected the problem.
 - 2) If the message shows again, then continue the Fault Isolation Procedure at the subsequent step.

————— **END OF TASK** —————

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A60. Maintenance Message 46-16300 (Network File Server has no input from the Flight Data Recorder on Playback Bus (717))

A. Maintenance Messages

- (1) This task is for maintenance message: 46-16300.

B. Description

- (1) The NFS has no input from the Flight Data Recorder on Playback Bus (717).

C. Possible Causes

- (1) Software
- (2) Wiring
- (3) Flight Data Recorder, M31035
- (4) L-NFS, M46013

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D. Circuit Breakers

- (1) Circuit Breaker related to Fault Option:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L

E. Related Data

- (1) WDM 46-13-11

F. Initial Evaluation

- (1) Do a 717 Receive Input Monitoring Check for the Flight Data Recorder. This is the task: AMM TASK 46-13-00-720-803.
- (a) If the BUS 1 status field on the MAT shows ACTIVE, no corrective action is necessary.
- (b) If the BUS 1 status field on the MAT shows NOT ACTIVE, do the Fault Isolation Procedure below.

G. Fault Isolation Procedure

- (1) Do a check of the ONS Software. This is the task: AMM TASK 46-13-01-860-801.
- (a) Make sure that all software parts installed on the NFS agree with the software specified in the aircraft's record.
- (b) If the required software is not installed, install the correct software. This is the task: Network File Server Software Installation, AMM TASK 46-13-01-470-801.
- (c) Do the Repair Confirmation at the end of this task.
- (2) Do these steps to check the wiring (WDM 46-13-11):
- (a) Make sure that this circuit breaker is closed:

Left Power Management Panel, P110

<u>Row</u>	<u>Col</u>	<u>Number</u>	<u>Name</u>
B	27	C46418	NFS - L



CAUTION

DO NOT TOUCH THE CONNECTOR PINS, OR OTHER CONDUCTORS. IF YOU TOUCH THESE CONDUCTORS, ELECTROSTATIC DISCHARGE CAN CAUSE DAMAGE TO THE COMPONENTS.

- (b) On the E4-2 Shelf, remove the L-NFS, M46013. This is the task: AMM TASK 46-13-01-000-801-001.
- (c) On the E7-1 Shelf, remove the Flight Data Recorder, M31035. This is the task: AMM TASK 31-31-01-000-801.
- (d) Do a wiring check between the L-NFS Connector, DM46013AC and the Flight Data Recorder Connector, DM31035AA.

DM46013AC

pin H5
pin G5

DM31035AA

pin 10
pin 9

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- (e) Repair any wiring problems that you find.
- (f) On the E7-1 Shelf, install the Flight Data Recorder, M31035. This is the task: AMM TASK 31-31-01-400-801.
- (g) On this E4-2 Shelf, install the L-NFS, M46013. This is the task: AMM TASK 46-13-01-400-801-001.
- (h) Do the Repair Confirmation at the end of this task.
- (3) Replace the Flight Data Recorder, M31035. These are the tasks:
 - Flight Data Recorder Removal, AMM TASK 31-31-01-000-801
 - Flight Data Recorder Installation, AMM TASK 31-31-01-400-801
- (a) Do the Repair Confirmation at the end of this task.
- (4) Replace the L-NFS, M46013. These are the tasks:
 - Network File Server Removal, AMM TASK 46-13-01-000-801-001
 - Network File Server Installation, AMM TASK 46-13-01-400-801-001
- (a) Do the Repair Confirmation at the end of this task.

H. Repair Confirmation

- (1) Do a 717 Receive Input Monitoring Check for the Flight Data Recorder. This is the task: AMM TASK 46-13-00-720-803.
 - (a) If the BUS 1 status field on the MAT shows ACTIVE, then you corrected the fault.
 - (b) If the BUS 1 status field on the MAT shows NOT ACTIVE, then continue the Fault Isolation Procedure at the subsequent step.

————— **END OF TASK** —————

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ARO A00. General Introduction - P121 Fault Isolation

ARO A. Introduction

- ARO (1) These procedures are added as a courtesy and are customer originated data (COC) data. These Class 3 Electronic Flight Bag (EFB) procedures capture maintenance actions for observed faults and maintenance faults generated by the various airline-selected applications installed on the Class 3 EFB.

ARO B. Purpose and Audience

- ARO (1) The purpose of these tasks are to provide additional supporting data for maintenance personnel for troubleshooting Class 3 EFB issues. This procedure provides support for EFB Part 121 Operationally Approved Applications (OAS). The maintenance faults generated by these Part 121 OAS applications are conditions that the application itself determines and do not indicate a failure of the EFB or other applications installed and running on the EFB.
- ARO (2) These Part 121 OAS application faults do not require the use of an EFB system hardware MEL item as they are generated by operationally approved software. These faults may require the use of an operator's MEL item appropriate to the failure and any corresponding Operations (O) procedure.
- ARO (3) This document may use and reference standard procedures and tasks in the Boeing AMM and FIM to support Part 121 applications fault isolation.

ARO C. Scope

- ARO (1) This document applies only to fault conditions and messages specifically generated by EFB Loadable Software Airplane Parts (LSAPs) and does not cover Windows OS fault conditions or messages. It is to be used in conjunction with the Fault Isolation Manual 46-11 Section tasks. This document will be expanded to include other Part 121 applications upon their release.
- ARO (2) We have made every attempt to minimize conflicting data and task duplication between EFB FIM Section 46-11 and EFB FIM Section 46-19. However, if you find the same fault message or the same observed fault is included in the two different sections, use the troubleshooting task in 46-19. Then, please follow the instructions below to request assistance from Boeing and we will correct the issue.

ARO D. List of Acronyms and Commonly Used Terms

- ARO (1) The following table includes acronyms or terms listed in this procedure.

ACRONYMS AND TERMS

ARO ACARS	ARINC Communications Addressing and Reporting System
ARO ADC	Application Dispatch Controller
ARO ADEL	Application Data Enhanced Loading
ARO CAM/CAT	Content Application Module /Common Administration Tool
ARO CDAF	Content Delivery Agent for EFB
ARO CMF	Communication Management Function
ARO CRC	Cyclic redundancy check
ARO DDM	Data Distribution and Management
ARO DFIM	DDM Flight Bag Interface Module
ARO DMEP	DDM EFB Interface Module
ARO eCMF	Communication Management Function

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ACRONYMS AND TERMS (Continued)

ARO		
ARO	ECSL	EFB Common Services Layer
ARO	EDB	EFB Document Browser
ARO	EFF	Electronic Flight Folder
ARO	eFTS	eFile Transfer Service
ARO	ELA	Enhanced Loading Application
ARO	ePT	electronic portable terminal
ARO	EWCB	EFB Wireless Communications
ARO	LPN	Long Part Number
ARO	LSAP	Loadable Software Airplane Part
ARO	MEL/MMEL	Master Equipment List / Master Minimum Equipment List
ARO	SMF	Security Management Function
ARO	SPN	Short Part Number
ARO	TC	Terminal Charts
ARO	VPN	Virtual Private Network
ARO		

E. Using the Class 3 EFB Fault Isolation Manual

- (1) This document is intended to be used in conjunction with the aircraft model Aircraft Maintenance Manual for Class 3 EFB, as that manual contains common maintenance tasks such as re-booting the system, re-loading software or downloading logs. This section contains procedures peculiar and specific to selected EFB applications that are not covered in the Aircraft Maintenance Manual and that are not covered in Section 46-11 of the Fault Isolation Manual.

- (2) When a fault condition is identified, research Section 46-11 first for the correct FIM task. If you do not find the fault in Section 46-11, then use this Section 46-19 to find the fault task.

NOTE: EFB may show the LSAP part number in a shortened condition. The short part number [SPN] is made from the first 3 characters and middle 4 characters of the software part number (LSAP). For example, for the ADC Supplier Configuration part, the [LPN] long part number BFBxx-ADCP-zzzz is shortened to short part number BFBADCP.

F. Requesting Assistance from Boeing

- (1) The preferred method for obtaining customer support for CIS Products and Services is to initiate a Service Request (SR) using the Service Requests application found on the MyBoeingFleet.com portal. When creating the Service Request, to ensure that your Service Request is routed to the CIS Customer Support organization, select the following within the Service Requests application:

- Product Type: Airplane
- ATA: 4611-00

- (2) It is also recommended that you include the following contacts:

- (a) ciscustomersupport@boeing.com (CIS Customer Support group mailbox)
- (b) An alternate method for obtaining support for CIS products and services is to send an email to the CIS Customer Support Group mailbox: ciscustomersupport@boeing.com

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ARO G. Downloading and Sending Log Files

- ARO (1) Because of their size, log files should be compressed (zipped), then forwarded to Boeing using Message Courier to ciscustomersupport@boeing.com. Log files can also be compressed and attached to the Service Request but limitations apply. Individual attachments to Service Requests cannot be greater than 30 MB and all of the attachments cannot exceed 50 MB. When attaching a .zip file to a BCS message, the file extension should be renamed from .zip to .zap as .zip files will be removed from the incoming message by Boeing network security software.

ARO ———— END OF TASK ————

ARO 801. Message Shows on the EFB Fault Log Page - Fault Isolation

ARO A. Fault Isolation Procedure

- ARO (1) Look in the table below for the message that shows in the EFB Fault Log. Do the applicable FIM task for the message that shows.

ARO EFB Fault Log Messages

ARO Fault Log Message	Go to FIM Task
ARO ADC: ADC CUSTOMER CFG INVALID	46-19 TASK 859
ARO ADC: ADC CUSTOMER CONFIG MISSING	46-19 TASK 858
ARO ADC: APPLICATIONS FAILURE	46-19 TASK 864
ARO ADC: <Application Button Name> FAILED	46-19 TASK 865
ARO ADC: <Application Button Name> FAILED LAUNCH	46-19 TASK 866
ARO ADC: <Application Button Name> FAILED PROCESS	46-19 TASK 867
ARO ADC: BFBADCS INVALID	46-19 TASK 862
ARO ADC: BFBADCS MISSING	46-19 TASK 861
ARO ADC: BFBEMSC INVALID	46-19 TASK 862
ARO ADC: BFBEMSC MISSING	46-19 TASK 861
ARO ADC: H/W – S/W CONFIG MISMATCH	46-19 TASK 863
ARO ADC: INTERNAL APPLICATION ERROR	46-19 TASK 854
ARO ADC: <MMMxx-PPPP-CCCC> CFG FAILED	46-19 TASK 868
ARO ADC: [SPN] FAILURE CRC	46-19 TASK 857
ARO ADC: [SPN] INVALID	46-19 TASK 862
ARO ADC: [SPN] MISSING	46-19 TASK 861
ARO ADC: SYS SUPPLIER CFG FILE ERROR	46-19 TASK 855
ARO ADC: TAIL ID OR MME ERROR	46-19 TASK 856
ARO ADC: TAIL ID REQUEST ERROR	46-19 TASK 856
ARO APPLICATIONS FAILURE	46-19 TASK 864
ARO ARPT MAP: <SPN> MISSING	46-19 TASK 843
ARO ARPT MAP: <SPN> FAILURE CRC	46-19 TASK 839
ARO ARPT MAP:BOTH DB IN EFFECT	46-19 TASK 840

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ARO EFB Fault Log Messages (Continued)

ARO	Fault Log Message	Go to FIM Task
ARO	ARPT MAP:EFFECTIVE OVERLAP	46-19 TASK 841
ARO	ARPT MAP:GPS OFFSET ERROR	46-19 TASK 842
ARO	ARPT MAP:XXXXX-XXXX-XXXX CORPT	46-19 TASK 844
ARO	BFBADCS INVALID	46-19 TASK 862
ARO	BFBADCS MISSING	46-19 TASK 861
ARO	CHARTS:CHART IS UNAVAILABLE	46-19 TASK 846
ARO	CHARTS:COVERAGE CODE MISMATCH	46-19 TASK 845
ARO	CHARTS: <SPN> FAILURE CRC	46-19 TASK 847
ARO	CHARTS: <SPN> INVALID	46-19 TASK 849
ARO	CHARTS: <SPN> MISSING	46-19 TASK 848
ARO	COMM CONFIG MISSING OR INVALID FOR TWLU	46-19 TASK 835
ARO	(ELB) DATABASE FOR TAIL ID XXX DOES NOT EXIST	46-19 TASK 810
ARO	DDM: AIRBORNE CERT REJECTED	46-19 TASK 875
ARO	DDM: CLIENT CERT NOT FOUND	46-19 TASK 881
ARO	DDM: CONNECTION REJECTED	46-19 TASK 884
ARO	DDM: CUSTOMER ID REJECTED	46-19 TASK 877
ARO	DDM: GROUND CERT NOT RECOGNIZED	46-19 TASK 874
ARO	DDM: INVALID HOST NAME	46-19 TASK 879
ARO	DDM: SERVER NOT RESPONDING	46-19 TASK 878
ARO	DDM: SERVER RESOURCE NOT FOUND	46-19 TASK 880
ARO	DDM: TAIL ID REJECTED	46-19 TASK 876
ARO	DDM: UNSERVICEABLE CONFIG	46-19 TASK 883
ARO	(EDB) DOCUMENT EXCEPTION	46-19 TASK 809
ARO	DOCUMENTS ADCC CONFIG ERROR	46-19 TASK 803
ARO	DOCUMENTS DATE NOT AVAILABLE	46-19 TASK 805
ARO	DOCUMENTS INVALID LIBRARY	46-19 TASK 807
ARO	DOCUMENTS MISSING CFG UMS LSAP	46-19 TASK 806
ARO	DOCUMENTS MISSING FILE	46-19 TASK 804
ARO	DOCUMENTS TAIL ID MISMATCH	46-19 TASK 802
ARO	(EDB) DOCUMENTS TAIL ID UNAVAILABLE	46-19 TASK 808
ARO	ECMF TAIL ID MISMATCH	46-19 TASK 832
ARO	EFB: ACARS COMM FAILED	46-19 TASK 831
ARO	EFF: DISK FULL OR DISK ERROR	46-19 TASK 852
ARO	EFF: EFB SVC INIT FAIL	46-19 TASK 850

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ARO EFB Fault Log Messages (Continued)

ARO	Fault Log Message	Go to FIM Task
ARO	EFF: IOSERV INIT FAIL	46-19 TASK 851
ARO	EFF: MESSAGING FAILURE	46-19 TASK 853
ARO	ELA: ADEL LSAP.DB WRITE FAILED	46-19 TASK 873
ARO	ELA: AUTO-LOAD ERROR	46-19 TASK 871
ARO	ELA: LSAP (SOFTWARE PART) CONFLICT	46-19 TASK 870
ARO	ELA: LOAD ERROR	46-19 TASK 872
ARO	ELA: (LSAP SOFTWARE NAME) HAS TMME MISMATCH	46-19 TASK 869
ARO	H/W – S/W CONFIG MISMATCH	46-19 TASK 860
ARO	<LPN> EXPIRED	46-19 TASK 827
ARO	<LPN> INVALID	46-19 TASK 825
ARO	OPM: CONNECTION FAILED	46-19 TASK 830
ARO	OPM: <Security Server Name> FAILED	46-19 TASK 830
ARO	SEC CUST CFG MISSING	46-19 TASK 826
ARO	SMF: [Firewall Rule Name] FAILED	46-19 TASK 830
ARO	SMF: SSL CERT EXPORT FAILED	46-19 TASK 836
ARO	SMF STOPPED: SHELF UNKNOWN	46-19 TASK 829
ARO	SMF: VPN HALTED ERROR LIMIT	46-19 TASK 830
ARO	<SPN> MISSING	46-19 TASK 861
ARO	TWLU CONTROLLER FAILED	46-19 TASK 833
ARO	TWLU FAIL	46-19 TASK 835
ARO	TWLU LINK FAULT	46-19 TASK 834
ARO	UNABLE TO SECURE: ACCT INVALID	46-19 TASK 830
ARO	UNABLE TO SECURE: CERT ERROR	46-19 TASK 830
ARO	UNABLE TO SECURE: DESTINATION	46-19 TASK 830
ARO	UNABLE TO SECURE: DEVICE ERROR	46-19 TASK 830
ARO	UNABLE TO SECURE: DIAL ERROR	46-19 TASK 830
ARO	UNABLE TO SECURE: INVALID CONF	46-19 TASK 830
ARO	UNABLE TO SECURE: TIMED OUT	46-19 TASK 830
ARO	WIRELESS CERT MISSING	46-19 TASK 826
ARO	WIRELESS CERT STORE FAILURE	46-19 TASK 828
ARO	WIRELESS DYNAMIC CERT FAILURE	46-19 TASK 828
ARO	————— END OF TASK —————	

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ARO 802. DOCUMENTS TAIL ID MISMATCH Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when you look at Electronic Document Browser (EDB), or preview
ARO search results in EDB and a document airplane effectivity and the airplane's Tail ID is not the
ARO same as the tail IDs in the document.

ARO B. Possible Causes

- ARO (1) It is possible a valid TAIL ID currently installed does not match EDB document Tail ID.

ARO C. Initial Evaluation

- ARO (1) On the IDENT page, make sure that the TAIL ID is the same as the flight deck placard.
- ARO (a) If the TAIL ID on the IDENT page is not the same as the flight deck placard, then do the
ARO applicable task to change the TAIL ID:
- ARO • 737-678: Display Unit - Tail Identification Check, AMM TASK 46-11-01-700-803
 - ARO • 747-400: Tail ID Check, AMM TASK 46-11-02-860-804
 - ARO • 757: Tail ID Check, AMM TASK 46-11-02-752-047
 - ARO • 767: Tail ID Check, AMM TASK 46-11-02-752-048
 - ARO • 777: TAIL ID Check, AMM TASK 46-11-03-860-805

ARO D. Fault Isolation Procedure

- ARO (1) Make sure that the correct LSAPs are installed. Do the applicable task:
- ARO • 737-678: Electronic Unit - Software Check, AMM TASK 46-11-02-860-802
 - ARO • 747-400: Electronic Unit - Software Check, AMM TASK 46-11-02-860-801
 - ARO • 757: Electronic Unit Software Check, AMM TASK 46-11-02-862-027
 - ARO • 767: EU Software Check, AMM TASK 46-11-02-862-028
 - ARO • 777: Electronic Unit - Software Check, AMM TASK 46-11-03-860-803
- ARO (a) If you do not find the correct software, install the missing software. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
ARO 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
ARO 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK
ARO 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-
ARO 11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-
ARO 11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-
ARO 03-470-801.
- ARO (b) If you find the correct software, continue with the fault isolation steps that follow.
- ARO (2) Go to the SYSTEM PAGE and restart the EFB.
- ARO (3) From the MAIN MENU, select DOCUMENTS.
- ARO (a) Access the FCOM document from the documents menu.

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- ARO (b) Open any page in the FCOM document.
- ARO (4) Go to the EFB MAINTENANCE Fault Log.
- ARO (a) If the fault message DOCUMENTS TAIL ID MISMATCH does not show after the restart
- ARO action, then you corrected the fault.
- ARO (b) If the fault message shows again, tell your EFB Administrator. The corrective action may
- ARO require a new software part.

————— **END OF TASK** —————

ARO 803. DOCUMENTS ADCC CONFIG ERROR Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when the ADCC software is not providing the correct directory
- ARO path/pointers to the Electronic Document browser (EDB) application.

ARO B. Possible Causes

- ARO (1) The EDB generates this fault when the ADC is not providing the correct directory path/filename
- ARO pointers to the EDB.

ARO C. Initial Evaluation

- ARO (1) From the EFB MAINTENANCE page, check the fault log to make sure that the DOCUMENTS
- ARO ADCC CONFIG ERROR fault message exists.

ARO D. Fault Isolation Procedure

- ARO (1) Make sure that the correct LSAPs are installed. Do the applicable task:
- ARO • 737-678: Electronic Unit - Software Check, AMM TASK 46-11-02-860-802
 - ARO • 747-400: Electronic Unit - Software Check, AMM TASK 46-11-02-860-801
 - ARO • 757: Electronic Unit Software Check, AMM TASK 46-11-02-862-027
 - ARO • 767: EU Software Check, AMM TASK 46-11-02-862-028
 - ARO • 777: Electronic Unit - Software Check, AMM TASK 46-11-03-860-803
- ARO (a) If you find the correct software installed, go the SYSTEM PAGE and select RESTART.
- ARO (b) If you do not find the correct software, install the correct software. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
 - ARO 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
 - ARO 11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
 - ARO 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
 - ARO 11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK
 - ARO 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
 - ARO 11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-
 - ARO 11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-
 - ARO 11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-
 - ARO 03-470-801.
- ARO (2) Go to the EFB MAINTENANCE fault log.

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- ARO (a) Make sure that the fault message DOCUMENTS ADCC CONFIG ERROR does not show
ARO with a new date-and-time stamp.
- ARO (b) If the fault message still shows, tell your EFB Administrator. The corrective action may
ARO require a new software part.

ARO ———— END OF TASK ————

ARO 804. DOCUMENTS MISSING FILE Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when an error prevents the Electronic Document Browser (EDB)
ARO application from displaying the content of the selected document. This may happen during view
ARO or preview when the document section or document cannot be found.
- ARO (2) The EDB also shows memo CONTENT FAILED TO LOAD.

ARO B. Possible Causes

- ARO (1) There are several possible causes. It is possible that the library is old and needs to be
ARO re-released through the EDB CAM and re-part numbered in the CAT.

ARO C. Fault Isolation Procedure

- ARO (1) There is no action that can be taken by Maintenance personnel for this fault message. Tell your
ARO EFB Administrator about this fault. The corrective action may require a new software part.

ARO ———— END OF TASK ————

ARO 805. DOCUMENTS DATE NOT AVAILABLE Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault shows when the EFB system date/time is unavailable or invalid.

ARO B. Possible Causes

- ARO (1) The Electronic Document Browser (EDB) application has not received valid date/time data
ARO from EFB system.

ARO C. Fault Isolation Procedure

- ARO (1) On the IDENT page, check the EFB date and time.
- ARO (a) If the date and time are correct:
- ARO 1) Tell your EFB Administrator about this fault message. No further action can be taken
ARO on the aircraft to correct this fault.
- ARO (b) If the date and time are not correct:
- ARO 1) Select RESTART to restart the EFB.
- ARO 2) After the restart, continue with the next step.
- ARO (2) Re-check the IDENT page for EFB date and time.
- ARO (a) If the date and time are not correct, from the EFB MAINTENANCE page, make the
ARO selection INPUT MONITORING.
- ARO 1) Look for analog discrete problems and general input monitor interface activity
ARO problems.
- ARO 2) Do a check of the EFB Fault Log page for related input fault messages.
- ARO 3) Do the FIM task for the input fault problem that shows.

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- ARO (b) If the fault continues, tell your EFB Administrator of this fault message. No further action
ARO can be taken on the aircraft to correct this fault.

ARO ——— END OF TASK ———

ARO 806. DOCUMENTS MISSING CFG UMS LSAP Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault shows when the EDB application configuration (AppConfig) file is missing. This
ARO message is sent during application startup.

ARO B. Possible Causes

- ARO (1) Missing application configuration file.

ARO C. Initial Evaluation

- ARO (1) Verify that EDB application button is cyan on the SYSTEM FAULT page.

ARO D. Fault Isolation Procedure

- ARO (1) Do a check to make sure that the LSAP with the nomenclature of 46 EDB CUST CFG UMS is
ARO installed. Do the applicable task:

- ARO • 737-678: Electronic Unit - Software Check, AMM TASK 46-11-02-860-802
- ARO • 747-400: Electronic Unit - Software Check, AMM TASK 46-11-02-860-801
- ARO • 757: Electronic Unit Software Check, AMM TASK 46-11-02-862-027
- ARO • 767: EU Software Check, AMM TASK 46-11-02-862-028
- ARO • 777: Electronic Unit - Software Check, AMM TASK 46-11-03-860-803

- ARO (a) If you do not find the software, install the correct software. Do one of these tasks:

- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
ARO 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-470-801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
ARO 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-470-804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK
ARO 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-
ARO 11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-
ARO 11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-
ARO 03-470-801.

- ARO (b) If you find the software, return to the SYSTEM PAGE and select RESTART.

- ARO (2) Go to the SYSTEM CONFIG page and make sure that 46 EDB CUST CFG UMS shows and
ARO the software part is valid.

- ARO (a) If the software part is valid, then you corrected the fault.

ARO ——— END OF TASK ———

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ARO 807. DOCUMENTS INVALID LIBRARY Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault shows when the EDB Airborne encounters an application configuration file (AppConfig) that was not processed by EDB CAM 4.1.29 or newer. EDB application will appear cyan on the EFB menu page.

ARO B. Possible Causes

- ARO (1) Incorrectly built software part.

ARO C. Fault Isolation Procedure

- ARO (1) Do a check to make sure the correct software is installed. Do the applicable task:
- ARO • 737-678: Electronic Unit - Software Check, AMM TASK 46-11-02-860-802
 - ARO • 747-400: Electronic Unit - Software Check, AMM TASK 46-11-02-860-801
 - ARO • 757: Electronic Unit Software Check, AMM TASK 46-11-02-862-027
 - ARO • 767: EU Software Check, AMM TASK 46-11-02-862-028
 - ARO • 777: Electronic Unit - Software Check, AMM TASK 46-11-03-860-803
- ARO (a) If you do not find the correct software, do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- ARO (b) If you find the correct software, return to the SYSTEM PAGE and select RESTART
- ARO (2) Navigate to SYSTEM CONFIG page and make sure all necessary LSAPs show.
- ARO (a) If yes, then you have corrected the problem.
- ARO (b) If no, tell the EFB Administrator of this fault message. No further action can be taken on the aircraft to correct this fault.

ARO ————— **END OF TASK** —————

ARO 808. Electronic Documents Browser (EDB) Shows DOCUMENTS TAIL ID UNAVAILABLE - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows in the EFB fault log when the EDB application starts up and the Tail ID cannot be obtained from the ADC.
- ARO (2) The EDB also shows memo DOCUMENTS TAIL ID UNAVAILABLE.

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ARO

B. Possible Causes

ARO

- (1) There is a problem between the LSAP with the nomenclature of ADC APPLICATION and the LSAP with the nomenclature of 46 EDB APP OPS.

ARO

ARO

C. Initial Evaluation

ARO

- (1) No Maintenance or System Fault will be displayed. You can recognize this fault because the document content filtering will be unavailable without a Tail ID. All content for this document will be displayed unfiltered.

ARO

ARO

ARO

D. Fault Isolation Procedure

ARO

- (1) There is no action that can be taken by Maintenance personnel for this fault message. Refer this fault to your EFB Administrator, as the corrective action may require a new software part.

ARO

ARO

————— END OF TASK —————

ARO

809. Electronic Documents Browser (EDB) Shows DOCUMENT EXCEPTION - Fault Isolation

ARO

A. Description

ARO

- (1) This fault message shows when the EDB application detects an error, but the application continues operation. The operation that was last selected may not have completed properly. The application will continue to run but the last operation may not have completed successfully due to an unanticipated error.

ARO

ARO

ARO

ARO

B. Possible Causes

ARO

- (1) An unhandled exception (internal error) has occurred in the software.

ARO

C. Initial Evaluation

ARO

- (1) A Maintenance and a System Fault will be displayed.

ARO

D. Fault Isolation Procedure

ARO

- (1) There is no action that can be taken by Maintenance personnel for this fault message. Tell your EFB Administrator. The corrective action may require a new software part.

ARO

ARO

————— END OF TASK —————

ARO

810. Electronic Logbook (ELB) Shows DATABASE FOR TAIL ID XXX DOES NOT EXIST - Fault Isolation

ARO

A. Description

ARO

- (1) This fault message shows when initialization is not complete or the Logbook database has not been copied from opposite EFB.

ARO

NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

ARO

ARO

B. Possible Causes

ARO

- (1) Software

ARO

C. Initial Evaluation

ARO

- (1) If the message shows on a new EU, then do the complete Fault Isolation Procedure below.

ARO

- (2) If the message shows after a Delete Temp, then do the steps below to Enable the Logbook in the Fault Isolation Procedure that follows.

ARO

- (3) If Tail ID has changed at EFB level, then do the step below to go to the SYSTEM PAGE and restart Windows in the Fault Isolation Procedure that follows.

ARO

ARO

D. Fault Isolation Procedure

ARO

- (1) Navigate to the SYSTEM PAGE and restart Windows.

ARO

- (2) Enable Logbook as follows:

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- ARO (a) From the MAIN MENU, navigate to LOGBOOK ADMIN.
- ARO (b) Select ENABLE, then OK to enable Logbook.
- ARO (c) Wait a few minutes or until Logbook Admin screen returns with ENABLE button now showing DISABLE
- ARO (d) From the MAIN MENU, select LOGBOOK. A "Logbook Starting" message will show.
- ARO (e) Make sure that Logbook Dashboard shows and ELB is operational.
- ARO (3) If the step above fails, then do the Ground Load Procedure as follows:
- ARO (a) From the MAIN MENU, navigate to LOGBOOK ADMIN.
- ARO (b) Select GROUND STATUS and make sure that both MESSAGE SENT and MESSAGE RECEIVED show.
- ARO (c) Select LOAD MODE, then OK and wait for the application to start in load mode.
- ARO NOTE: While doing GROUND LOAD on LEFT ELB, the RIGHT ELB is also being put in
- ARO Load Mode, so no action is required for the RIGHT ELB.
- ARO (d) Select DATA LOAD.
- ARO (e) Select GROUND LOAD, then OK.
- ARO (f) Select INITIATE and Ground Load will begin. When the Ground Load is complete, the
- ARO Status box will indicate 100% and the NORMAL MODE button will be enabled.
- ARO (g) Select NORMAL MODE, and then OK to restore the LEFT ELB to operational mode.
- ARO (h) On the RIGHT EFB, if not yet at LOGBOOK ADMIN page, select LOGBOOK ADMIN.
- ARO (i) On the RIGHT EFB, select NORMAL MODE, and then OK to restore RIGHT ELB to
- ARO operational mode.
- ARO (4) Make sure that Logbook starts up normally in operational mode.

END OF TASK

811. Electronic Logbook (ELB) Shows GROUND ERROR NULL - Fault Isolation

A. Description

- (1) This fault shows when there is a communications error or the aircraft Tail ID is not recognized.

NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Make sure that at least one Communication channel is available as follows:
- (a) From EFB MAINTENANCE page, navigate to COMM MAINTENANCE.
- (b) Make sure that the status of TWLU, SATCOM or ACARS status on COMM MAINT page is AVAILABLE.
- (2) Make sure that there is communication from onboard to ground using ELB Admin application.
- (a) From the ELB Admin page, select GROUND STATUS and note that both MESSAGE SENT and MESSAGE RECEIVED shows.

D. Fault Isolation Procedure

- (1) Make sure that the aircraft Tail ID has been entered in the Logbook Ground System.
- (2) Perform Ground Load Procedure as follows:

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- ARO (a) From the MAIN MENU navigate to LOGBOOK ADMIN.
- ARO (b) Select GROUND STATUS and make sure both MESSAGE SENT and MESSAGE
ARO RECEIVED shows.
- ARO (c) Select LOAD MODE, then OK and wait for the application to start in load mode.
- ARO NOTE: While doing GROUND LOAD on LEFT ELB, the RIGHT ELB is also being put in
ARO Load Mode, so no action is required for the RIGHT ELB.
- ARO (d) Select DATA LOAD.
- ARO (e) Select GROUND LOAD, then OK.
- ARO (f) Select INITIATE and Ground Load will begin. When the Ground Load is complete, the
ARO Status box will indicate 100% and the NORMAL MODE button will be enabled.
- ARO (g) Select NORMAL MODE, and then OK to restore the LEFT ELB to operational mode.
- ARO (h) On the RIGHT EFB, if not yet at LOGBOOK ADMIN page, select LOGBOOK ADMIN.
- ARO (i) On the RIGHT EFB, select NORMAL MODE, and then OK to restore RIGHT ELB to
ARO operational mode.
- ARO (3) If Ground Load fails to complete, perform Delete Temp Procedure as follows:
- ARO (a) Navigate to the EFB MAIN MENU page.
- ARO (b) Push the SYSTEM page button.
- ARO (c) Push the EFB MAINTENANCE button.
- ARO (d) Push the LOAD MODE button.
- ARO NOTE: After you make the LOAD MODE selection, the touch screen buttons show cyan
ARO in color, the message IN PROGRESS shows above the LOAD MODE button,
ARO and then the LOAD MODE page shows. This sequence can take approximately
ARO (3) three minutes.
- ARO (e) From the LOAD MODE page, push the LINE SELECT KEY (LSK) adjacent to DISK
ARO UTILITIES.
- ARO (f) On the DISK UTILITIES page, push the DELETE TEMP button.
- ARO (g) Push CONFIRM to initiate the DELETE TEMP process.
- ARO (h) Upon completion, push the BACK bezel key to return to the LOAD MODE page.
- ARO (4) Make sure that Ground load will start and complete successfully and that Logbook is back in
ARO operational mode.
- ARO (a) If the DELETE TEMP task was performed, verify that Logbook is back in operational
ARO mode.

————— END OF TASK —————

ARO 812. Electronic Logbook (ELB) Database Ground Load Fail Problems - Fault Isolation

ARO A. Description

- ARO (1) Database failed to load to onboard system or Air-ground communication failed or was
ARO interrupted.

ARO NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

ARO B. Possible Causes

- ARO (1) Software

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ARO (i) Make sure that Logbook returns to the Operational mode.

ARO ———— END OF TASK ————

ARO 813. Electronic Logbook (ELB) Launch Problems (Error on Mode Switch) - Fault Isolation

ARO A. Description

ARO (1) This fault shows when you select Logbook or when you switch modes before EFB is fully
ARO online.

ARO NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

ARO B. Possible Causes

ARO (1) Software

ARO C. Initial Evaluation

ARO (1) If the EFB has not completed its startup (all MAIN MENU buttons are not gray), wait until all
ARO MAIN MENU buttons are grey

ARO (2) Select LOGBOOK.

ARO (a) If ELB launches successfully, then the fault is intermittent.

ARO (b) If problem continues, do the Fault Isolation Procedure that follows.

ARO D. Fault Isolation Procedure

ARO (1) Go to the SYSTEM PAGE and restart Windows.

ARO (2) Make sure that the EFB completes startup with all Main Menu and Maintenance Menu buttons
ARO active (gray).

ARO (a) Then, switch modes.

ARO (3) If the fault occurs, do the Delete Temp Procedure as follows:

ARO (a) Navigate to the EFB MAIN MENU page.

ARO (b) Push the SYSTEM page button.

ARO (c) Push the EFB MAINTENANCE button.

ARO (d) Push the LOAD MODE button.

ARO NOTE: After you make the LOAD MODE selection, the touch screen buttons show cyan
ARO in color, the message IN PROGRESS shows above the LOAD MODE button,
ARO and then the LOAD MODE page shows. This sequence can take approximately
ARO three (3) minutes.

ARO (e) From the LOAD MODE page, push the LINE SELECT KEY (LSK) adjacent to DISK
ARO UTILITIES.

ARO (f) On the DISK UTILITIES page, push the DELETE TEMP button.

ARO (g) Push CONFIRM to initiate the DELETE TEMP process.

ARO (h) Upon completion, push the BACK bezel key to return to the LOAD MODE page.

ARO (4) Make sure that the ELB starts successfully, or switch to different modes with no errors., and
ARO that Logbook is back in operational mode.

ARO (a) If Logbook is back in operational mode, you corrected the fault.

ARO ———— END OF TASK ————

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ARO 814. "Logbook Starting" Message Shows for More Than 3 Minutes - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when the "Logbook Starting" message continues to show on the ePT. The EFB may be starting up and copying the database from the opposite EFB, or when the EFB starts, resources to run applications may be limited and application response may be slow.

ARO NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) The "Logbook Starting" message may show for up to three (3) minutes. Wait 3 minutes before you continue.
- ARO (a) If the "Logbook Starting" message does not show after 3 minutes, the fault was intermittent.
- ARO (2) If the "Logbook Starting" message continues to show after 3 minutes, then do the Fault Isolation Procedure that follows.

ARO D. Fault Isolation Procedure

- ARO (1) Navigate to the SYSTEM PAGE and restart Windows on EFB.
- ARO (2) If the message continues, do the Delete Temp Procedure that follows:
- ARO (a) Navigate to the EFB MAIN MENU page.
- ARO (b) Push the SYSTEM page button.
- ARO (c) Push the EFB MAINTENANCE button.
- ARO (d) Push the LOAD MODE button.
- ARO NOTE: After you make the LOAD MODE selection, the touch screen buttons show cyan in color, the message IN PROGRESS shows above the LOAD MODE button, and then the LOAD MODE page shows. This sequence can take approximately three (3) minutes.
- ARO (e) From the LOAD MODE page, push the LINE SELECT KEY (LSK) adjacent to DISK UTILITIES.
- ARO (f) On the DISK UTILITIES page, push the DELETE TEMP button.
- ARO (g) Push CONFIRM to initiate the DELETE TEMP process.
- ARO (h) Upon completion, push the BACK bezel key to return to the LOAD MODE page.
- ARO (3) Make sure that the ELB starts successfully and the "Logbook Starting" message does not show on the ePT for more than three minutes after startup.

ARO ————— END OF TASK —————

ARO 815. "Node Mode Update, Please Wait" Message Shows for More Than 3 Minutes - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when the "Node Mode Update, Please Wait" message continues to show on the ePT. Electronic Logbook (ELB) may not respond when you switch modes.

ARO NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

ARO B. Possible Causes

- ARO (1) Software

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ARO 817. “Sign Failed” Message for ELB Shows - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when the “Sign Failed” message shows on the ePT when there is an
ARO electronic logbook (ELB) login failure. This indicates an error has been made entering
ARO Personnel ID and/or password, or the user’s signature validation account has not been
ARO activated.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Re-enter ID and Password.
ARO (2) If the fault continues, do the applicable Fault Isolation Procedure below for your airplane
ARO configuration:
ARO (a) Non-Cabin Server Configuration, or
ARO (b) Cabin Server Configuration

ARO D. Fault Isolation Procedure - Non-Cabin Server Configuration

- ARO (1) For Defect/Maintenance Action, Service Log or Maintenance Release, do the Paper Sign
ARO Procedure as follows:
ARO (a) From the EFB Maintenance Dashboard, select the Pending (Sent, Queued, or Sign
ARO Failed) item then select PRINT FOR PAPER SIGN button to print out two paper copies.
ARO (b) Select CONFIRM SIGN then OK to complete Paper Sign procedure.
ARO NOTE: If both Communications and Printer are unavailable, then switch to airline paper
ARO logbook business processes or alternate processes to release aircraft.

ARO E. Fault Isolation Procedure - Cabin Server Configuration

- ARO (1) For each record requiring paper signature, do the Paper Sign Procedure as follows:
ARO (a) Select the record from the Dashboard Open Items list.
ARO (b) Select the Print for Paper Sign button, then PRINT to print out two paper copies.
ARO (c) Select Confirm Signed checkbox, then OK to complete Paper Sign procedure.
ARO NOTE: If both Communications and Printer are not available, then switch to airline paper
ARO logbook business processes or alternate processes to release aircraft.

ARO F. Repair Confirmation

- ARO (1) Make sure that items show Confirmed and have been removed from the Open items list.

ARO ———— END OF TASK ————

ARO 818. “Queued” Message Continues to Show - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when you launch the Electronic Logbook (ELB) application and the “Queued”
ARO message continues to show on the ePT.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Do a check of the Communications status as follows:
ARO (a) From the EFB MAINTENANCE page, navigate to COMM MAINTENANCE.

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- ARO (b) Make sure that TWLU, SATCOM or ACARS status on COMM MAINT page is
ARO AVAILABLE.
- ARO 1) If a comm channel is AVAILABLE, then no action is required.
- ARO 2) If comm channels are UNAVAILABLE, do the applicable Fault Isolation Procedure
ARO below for your airplane configuration:
- ARO a) Non-Cabin Server Configuration, or
- ARO b) Cabin Server Configuration

D. Fault Isolation Procedure - Without Cabin Server Configuration

- ARO (1) For Defect/Maintenance Action, Service Log or Maintenance Release, do the Paper Sign
ARO Procedure as follows:
- ARO (a) From the EFB Maintenance Dashboard, select the Pending (Sent, Queued, or Sign
ARO Failed) item then select PRINT FOR PAPER SIGN button to print out two paper copies.
- ARO (b) Select CONFIRM SIGN, then OK to complete Paper Sign procedure.
- ARO NOTE: If both Communications and Printer are unavailable, then switch to airline paper
ARO logbook business processes or alternate processes to release aircraft.

E. Fault Isolation Procedure - With Cabin Server Configuration

- ARO (1) For each record requiring paper signature, do the Paper Sign Procedure as follows:
- ARO (a) Select the record from the Dashboard Open Items list.
- ARO (b) Select the Print for Paper Sign button, then PRINT to print out two paper copies.
- ARO (c) Select Confirm Signed checkbox, then OK to complete Paper Sign procedure.
- ARO NOTE: If both Communications and Printer are not available, then switch to airline paper
ARO logbook business processes or alternate processes to release aircraft.

F. Repair Confirmation

- ARO (1) The Message status should change to Confirmed or Sign Failed.
- ARO (a) If Confirmed status of a Maintenance Action is reached, it will be removed from the Open
ARO items list.
- ARO (b) If Sign Failed shows, then do this task: ("Sign Failed" Message for ELB Shows - Fault
ARO Isolation, 46-19 TASK 817).

————— END OF TASK —————

819. Sent Message Continues to Show - Fault Isolation

A. Description

- ARO (1) Use this FIM task when the "Sent" message continues to show on the ePT. This indicates an
ARO air-ground communication problem or Logbook Ground System problem.

B. Possible Causes

- ARO (1) Software

C. Initial Evaluation

- ARO (1) Do a check of Communications status as follows:
- ARO (a) From the EFB MAINTENANCE page, navigate to COMM MAINTENANCE.
- ARO (b) Make sure that TWLU, SATCOM or ACARS status on COMM MAINT page is
ARO AVAILABLE.
- ARO 1) If Comm channel is AVAILABLE, then no action required.

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- ARO 2) If Comm channel is UNAVAILABLE, do the applicable Fault Isolation Procedure
ARO below for your airplane configuration:
ARO a) Non-Cabin Server Configuration, or
ARO b) Cabin Server Configuration

ARO D. Fault Isolation Procedure - Without Cabin Server Configuration

- ARO (1) For Defect/Maintenance Action, Service Log or Maintenance Release, do the Paper Sign
ARO Procedure as follows:
ARO (a) From the EFB Maintenance Dashboard, select the Pending (Sent, Queued, or Sign
ARO Failed) item then select PRINT FOR PAPER SIGN button to print out two paper copies.
ARO (b) Select CONFIRM SIGN then OK to complete Paper Sign procedure
ARO NOTE: If both Communications and Printer are unavailable, then switch to airline paper
ARO logbook business processes or alternate processes to release aircraft.

ARO E. Fault Isolation Procedure - With Cabin Server Configuration

- ARO (1) For each record requiring paper signature, do the Paper Sign Procedure as follows:
ARO (a) Select the record from the Dashboard Open Items list.
ARO (b) Select the Print for Paper Sign button, then PRINT to print out two paper copies.
ARO (c) Select Confirm Signed checkbox, then OK to complete Paper Sign procedure.
ARO NOTE: If both Communications and Printer are not available, then switch to airline paper
ARO logbook business processes or alternate processes to release aircraft.

ARO F. Repair Confirmation

- ARO (1) Items show Confirmed and have been removed from the Open items list.
ARO NOTE: Under certain conditions of prolonged air-ground communication outages, the records
ARO onboard the airplane that are not accepted by the Logbook Ground System may
ARO increase to more than 128 messages. If this occurs, the Logbook Ground System is
ARO designed to continue to reject messages until administrative action is taken to allow
ARO the Logbook Ground System to accept them. Checking Ground Status will result in
ARO successful indications of the connection to ELB Ground, however logbook messages
ARO may not be reaching the ground database. If this situation is suspected, contact the
ARO ELB Administrator.

ARO ————— END OF TASK —————

ARO 820. "PLEASE STANDBY" Shows for More Than Two Minutes - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when "Please Standby" shows for more than two (2) minutes on the ePT.
ARO One or both EFB EUs are offline and Maintenance application is attempting to connect to the
ARO EFB database.
ARO NOTE: This fault is for airplanes that have Electronic Logbook with Cabin Server.

ARO B. Possible Causes

- ARO (1) Software

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ARO

C. Initial Evaluation

ARO

- (1) Make sure that the CABIN SERVER and EFB are in operational mode.

ARO

- (2) On one EFB, select EFB Maintenance page, then select NFS MAINT. If the NFS MAINT page displays the tabs at the top, then communication between EFB and CABIN SERVER is functioning properly. This can be checked on each EFB.

ARO

ARO

- (3) Select LOGBOOK on EFB.

ARO

- (a) If message "Database does not exist for (tail ID)" is shown, then do this task: Electronic Logbook (ELB) Shows DATABASE FOR TAIL ID XXX DOES NOT EXIST - Fault Isolation, 46-19 TASK 810.

ARO

ARO

- (b) If Logbook Dashboard is displayed, then do the Fault Isolation Procedure below.

ARO

D. Fault Isolation Procedure

ARO

- (1) If at least one EFB is online and not fully operational, this condition will correct itself when an EFB becomes online. User may need to log off Maintenance Logbook and log on again.

ARO

- (2) If the condition continues, cycle the CABIN SERVER power off, then back on. Log on again. This may take from 5 to 7 minutes.

ARO

- (3) If the condition continues, restart Windows on both EFBs. Log on again.

ARO

- (4) If condition continues, do the Delete Temp Procedure as follows:

ARO

- (a) Navigate to the EFB MAIN MENU page.

ARO

- (b) Push the SYSTEM page button.

ARO

- (c) Push the EFB MAINTENANCE button.

ARO

- (d) Push LOAD MODE button.

ARO

NOTE: After you make the LOAD MODE selection, the touch screen buttons show cyan in color, the message IN PROGRESS shows above the LOAD MODE button, and then the LOAD MODE page shows. This sequence can take approximately three (3) minutes.

ARO

- (e) From the LOAD MODE page, push the LINE SELECT KEY (LSK) adjacent to DISK UTILITIES.

ARO

- (f) On the DISK UTILITIES page, push the DELETE TEMP button.

ARO

- (g) Push CONFIRM to initiate the DELETE TEMP process.

ARO

- (h) Upon completion, push the BACK bezel key to return to the LOAD MODE page.

ARO

E. Repair Confirmation

ARO

- (1) Make sure that the "Please Standby" does not show and Maintenance Logbook (ELB) on ePT displays normally.

ARO

ARO

————— END OF TASK —————

ARO

821. Server Timeout Error - Fault Isolation

ARO

A. Description

ARO

- (1) Use this FIM task when "Server Timeout" error shows on the ePT. This fault indicates a CABIN SERVER to EFB communication failure.

ARO

NOTE: This fault is for airplanes that have Electronic Logbook without Cabin Server.

ARO

B. Possible Causes

ARO

- (1) Software

ARO

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- ARO C. Initial Evaluation
- ARO (1) Make sure the RJ-45 connection is secure.
- ARO (2) Reboot the ePT and log on again.
- ARO (3) If the problem continues, do the Fault Isolation Procedure.
- ARO D. Fault Isolation Procedure
- ARO (1) Do this task: "PLEASE STANDBY" Shows for More Than Two Minutes - Fault Isolation, 46-19 TASK 820.
- ARO E. Repair Confirmation
- ARO (1) Make sure that the Server Timeout fault does not show again and that the ePT displays Logbook normally.
- ARO

————— END OF TASK —————

ARO 822. Logbook Tab Missing or Logbook Tab Not Operational After Logon - Fault Isolation

- ARO A. Description
- ARO (1) Use this FIM task when the Logbook Tab is missing on the ePT or the Logbook Tab does not operate after you logon.
- ARO NOTE: This fault is for airplanes that have Electronic Logbook with Cabin Server.
- ARO B. Possible Causes
- ARO (1) Software (corrupted or missing Logbook Application LSAP, or missing customer configuration LSAP).
- ARO C. Fault Isolation Procedure
- ARO (1) Contact your EFB Administrator and make sure that the correct Logbook software parts are installed, then follow Logbook LSAP installation procedure for CABIN SERVER.
- ARO D. Repair Confirmation
- ARO (1) Make sure that Logbook tab operation is restored and that Logbook is running normally.
- ARO

————— END OF TASK —————

ARO 823. "Please Stand By" and "Failed To Connect" Shows on EPT - Fault Isolation

- ARO A. Description
- ARO (1) Use this FIM task when the "Please Stand by" message shows on ePT and then changes to "Failed to Connect". Logbook is not enabled.
- ARO NOTE: This fault is for airplanes that have Electronic Logbook with Cabin Server.
- ARO B. Possible Causes
- ARO (1) Software
- ARO C. Initial Evaluation
- ARO (1) Make sure that Logbook is enabled on the EFBs.
- ARO D. Fault Isolation Procedure
- ARO (1) If Logbook is disabled on the EFBs then enable Logbook.
- ARO (2) If logbook is operational on the EFBs and the fault continues, then recycle power on the CABIN SERVER.
- ARO

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ARO E. Repair Confirmation

- ARO (1) After seven to ten (7 to 10) minutes, make sure that the ePT is connected and that Logbook is
ARO operating normally.

ARO ———— END OF TASK ————

ARO 824. ELB Data on EFB is Different than ePT Logbook Data - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when there are discrepancies between the Logbook data on EFB and the
ARO ePT Maintenance display. There is a temporary loss of EFB to CABIN SERVER, or EFB to
ARO EFB communications.

ARO NOTE: This fault is for airplanes that have Electronic Logbook with Cabin Server.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Reboot the CABIN SERVER.
ARO (2) If discrepancies between Logbook data on EFB and the ePT continue, do the Fault Isolation
ARO procedure.

ARO D. Fault Isolation Procedure

- ARO (1) Compare the three Logbook displays.
ARO (a) If the Maintenance display on the ePT is different from the EFBs, then logoff the ePT and
ARO logon again.
ARO (b) If the EFB displays are different, then inspect the data to determine which is most current,
ARO then restart Windows on the EFB that appears to be incorrect.
ARO (2) If the fault continues, disable Logbook on the EFB with the bad data and report the problem to
ARO the EFB Administrator.

ARO ———— END OF TASK ————

ARO 825. Wireless Security LSAP INVALID Fault Message - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when a fault occurs for the WIRELESS SECURITY (WCRT) LSAP. The fault
ARO shows the LSAP as INVALID. This can occur when a cycle redundancy check (CRC)
ARO calculation fails, or an Auth Key check on the LSAP (or a file within the LSAP) fails or when
ARO invalid customer configuration parameters and/or values are present.

- ARO (2) Use this procedure when you see these fault messages:

- ARO • <MMMXX-ESCC-CCCC> INVALID
ARO • <MMMXX-PPPP-CCCC> INVALID
ARO • <MMMXX-WCRT-CCCC> INVALID

- ARO (a) The Wireless Security LSAP nomenclature that shows on the SYSTEM CONFIG page is
ARO as follows:

- ARO • MMMXX-ESCC-CCCC 46 SECURITY UMS
ARO • MMMXX-PPPP-CCCC 46 SECURITY UMS
ARO • MMMXX-PPPP-CCCC WIRELESS CERT

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- NOTE: MMM is the airline 3 letter designation or LSAP supplier designation.

NOTE: EFB can show the LSAP part number in a shortened condition. The short part number [SPN] is made from the first 3 characters and middle 4 characters of the software part number (LSAP). For example, for the WIRELESS CERT part, the long part number MMMXX-WCRT-CCCC is shortened to short part number MMMWCRT.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Do a check of the LSAP condition as follows:

- (a) Go to the SYSTEM CONFIG page.

- (b) If the LSAP identified in the fault message shows and is cyan in color, wait for the LSAP integrity check to be completed.

NOTE: The LSAP will be either white (passed) or amber (failed) once the integrity check is completed.

- (c) If the LSAP in the fault message shows and is white in color, then do the complete fault isolation procedure below.

- (d) If the LSAP in the fault message shows and is amber in color, then start at the step below to install new software (LSAP).

D. Fault Isolation Procedure

- (1) Go to the SYSTEM PAGE and restart the EFB.

- (2) Go to the **FAULT LOG** page make sure that the **INVALID** fault for the same LSAP in the original fault message shows with a new date time stamp.

- (a) If a new <LSAP IDENTIFIER> INVALID fault does not show, then the fault was intermittent.

- (b) If a new <LSAP IDENTIFIER> INVALID fault shows, then continue.

- (3) Go to the SYSTEM CONFIG page.

- (a) On the SYSTEM CONFIG page, look to see if the LSAP in the fault shows and it is white in color.

- (b) If the LSAP is white, tell your EFB Administrator about this fault. The system tells you that the <LSAP IDENTIFIER> is INVALID and the EFB Administrator must provide a valid LSAP.

- (4) Install the new, valid LSAP (software). Do one of these tasks:

- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.

- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022

- 767: EFB EU Software Installation with the ARINC 615A Data Loader. AMM TASK 46-11-02-

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ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Repair Confirmation

ARO (1) Go to the SYSTEM CONFIG page.

ARO (2) Make sure that you see the LSAP identified in the original fault and that it shows white in color.

ARO (a) If you see the part and it is white in color, then continue.

ARO (3) Look at the fault log for the message: <LSAP IDENTIFIER> INVALID.

ARO (a) If the fault message does not show, or does not have a new time and date stamp, then you corrected the fault.

ARO ————— END OF TASK —————

ARO 826. Wireless Security LSAP MISSING - Fault Isolation

ARO A. Description

ARO (1) This fault message shows when the LSAP for the fault is missing.

ARO (2) Use this procedure when you see these fault messages:

ARO • WIRELESS CERT MISSING

ARO • SEC CUST CFG MISSING

ARO NOTE: MMM is the airline 3 letter designation or LSAP supplier designation.

ARO NOTE: SEC CUST CFG refers to the SMFConfig.ini file located in one of the following LSAPs:
ARO MMMXX-EWSC-XXXX, MMMXX-ESCC-XXXX, or MMMXX-PPPP-XXXX. WIRELESS
ARO CERT is the software nomenclature for one of the following LSAPs:
ARO MMMXX-WCRT-XXXX, MMMXXESCC-XXXX, or MMMXX-PPPP-XXXX.

ARO NOTE: Faults that identify missing LSAPs must use software nomenclature because the
ARO LSAP cannot be found that would enable determination of the short part number.

ARO B. Possible Causes

ARO (1) Software

ARO C. Initial Evaluation

ARO (1) Do a check of the LSAP condition as follows:

ARO (a) Go to the SYSTEM CONFIG page.

ARO 1) If the LSAP identified in the fault message is missing, then do the fault isolation
ARO procedure below.

ARO D. Fault Isolation Procedure

ARO (1) Install the missing software part (LSAP). Do one of these tasks:

ARO (a) If you do not find the software, install the correct software. Do one of these tasks:

ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
ARO 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-470-801.

ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK
ARO 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-
ARO 11-02-470-804.

ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK

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- ARO 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- ARO (b) If you find the software, return to the SYSTEM PAGE and select RESTART.

E. Repair Confirmation

- ARO (1) Go to the SYSTEM CONFIG page.
- ARO (2) Make sure that the LSAP identified in the original fault shows and it is white in color.
- ARO (a) If the part is present and shows white in color, then continue.
- ARO (3) Examine the fault log for the message WIRELESS CERT MISSING or SEC CUST CFG MISSING.
- ARO (a) If the fault message does not show, or does not have a new time and date stamp, then you corrected the fault.

————— END OF TASK —————

ARO 827. Wireless Security LSAP EXPIRED Fault Message - Fault Isolation

A. Description

- ARO (1) This fault occurs when the wireless certification contained in the <LSAP IDENTIFIER> LSAP is expired. Use this FIM procedure when you see these fault messages:
- ARO • <MMMXX-ESCC-CCCC> EXPIRED
- ARO • <MMMXX-PPPP-CCCC> EXPIRED
- ARO • <MMMXX-WCRT-CCCC> EXPIRED
- ARO NOTE: MMM is the airline 3 letter designation or LSAP supplier designation.
- ARO NOTE: EFB can show the LSAP part number in a shortened condition. The short part number [SPN] is made from the first 3 characters and middle 4 characters of the software part number (LSAP). For example, for the WIRELESS CERT part, the long part number MMMXX-WCRT-CCCC is shortened to short part number MMMWCRT.
- ARO (a) The Wireless Security LSAP nomenclature (displayed on the SYSTEM CONFIG page) is as follows:
- ARO • MMMXX-ESCC-CCCC 46 SECURITY UMS
- ARO • MMMXX-PPPP-CCCC 46 SECURITY UMS
- ARO • MMMXX-PPPP-CCCC WIRELESS CERT
- ARO • MMMXX-WCRT-CCCC WIRELESS CERT

B. Possible Causes

- ARO (1) Software

C. Initial Evaluation

- ARO (1) Check the software part as follows:
- ARO (a) Go to the IDENT page and make sure the Wireless Certificate listed in EFB EFFECTIVITY CONFIGURATION table is effective.

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- ARO 1) If the WIRELESS CERTIFICATE is expired and past its effectivity date, the line
ARO entry beginning with WIRELESS CERT will be amber.
- ARO a) If it is amber, then refer this fault and the LSAP identified in the fault message
ARO and the IDENT page to your EFB Administrator. The corrective action will
ARO require a new software part.
- ARO b) If it is not amber, continue to the next step.
- ARO (b) Go to the SYSTEM CONFIG page.
- ARO (c) If the LSAP identified in the fault message and the WIRELESS CERT line entry of the
ARO IDENT page shows white in color, then tell your EFB Administrator. The corrective action
ARO may require a new software part.

D. Fault Isolation Procedure

- ARO (1) When your EFB Administrator gives you a new software part, install the wireless certificate
ARO software part. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Repair Confirmation

- ARO (1) Go to the SYSTEM CONFIG page.
- ARO (a) Make sure that the Wireless Certificate LSAP shows white in color. The software
ARO nomenclature for this LSAP will be either WIRELESS CERT or 46 SECURITY UMS.
- ARO 1) If the part shows white in color, then continue.
- ARO (2) Look at the fault log for the fault message above (<LSAP IDENTIFIER> EXPIRED).
- ARO (a) If the fault message does not show, or it does not have a new time-and-date stamp, then
ARO you corrected the fault.

————— END OF TASK —————

828. Wireless Security LSAP FAILURE - Fault Isolation

A. Description

- ARO (1) Use this FIM task when you see these fault messages:
- ARO • WIRELESS CERT STORE FAILURE, or
- ARO • WIRELESS DYNAMIC CERT FAILURE

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ARO (2) These fault messages show when the SMF function (EFB WIRELESS SW LSAP, short part
ARO number (SPN) OPTIEWCB) is unable to complete generating a valid Wireless Certificate or the
ARO names and/or locations of the certificate files are incorrectly set in the SMFConfig.ini file.
ARO Comm Maintenance Status for IP links (TWLU or SATCOM or CELLULAR) will not advance
ARO past ASSOCIATED as displayed on the EFB COMM MAINTENANCE STATUS page.

ARO B. Possible Causes

ARO (1) Software

ARO C. Initial Evaluation

ARO (1) Go to the SYSTEM PAGE and restart the EFB.

ARO (2) Go to the SYSTEM CONFIG page, and make sure that these LSAPs show and that they are
ARO white in color:

ARO • SPN MMM-WCRT or MMM-PPPP (WIRELESS CERT) AND MMM-EWSC or MMM-PPPP
ARO (SEC CUST CONFIG) (two LSAPs required), or

ARO • SPN MMM-ESCC or MMM-PPPP (46 SECURITY UMS) (single LSAP required)

ARO (a) If these parts show and they are white in color, follow the fault Isolation procedure below,
ARO "Parts are Present and White".

ARO (b) If any of the parts are missing or amber in color, do the fault isolation procedure below
ARO "Part is Missing or Amber in Color".

ARO D. Fault Isolation Procedure - Part is Missing or Amber in Color

ARO (1) Install the LSAP. Do one of these tasks:

ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.

ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.

ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.

ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Fault Isolation Procedure - Parts are Present and White

ARO (1) Tell your EFB Administrator about this fault. This is an indication that the one or more of these
ARO parts are not configured properly and a new part(s) must be provided.

ARO • SPN MMM-WCRT or MMM-PPPP (WIRELESS CERT) AND MMM-EWSC or MMM-PPPP
ARO (SEC CUST CONFIG) (two LSAPs required), or

ARO • SPN MMM-ESCC or MMM-PPPP (46 SECURITY UMS) (single LSAP required)

ARO (2) When the new parts are provided, install the LSAPs. Do one of these tasks:

ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.

ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-

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- ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

F. Repair Confirmation

- (1) Go the SYSTEM CONFIG page.
- (a) Make sure that the LSAP(s) identified above show and that they are white in color.
- 1) If the part(s) are present and shows white in color, then continue.
- (b) Make sure that there is not a new fault message: WIRELESS CERT STORE FAILURE or WIRELESS DYNAMIC CERT FAILURE.
- (c) If the fault message(s) do not show, or if they do not have a new time-and-date stamp, then you corrected the fault.

————— END OF TASK —————

829. SMF STOPPED: SHELF UNKNOWN - Fault Isolation

A. Description

- (1) This condition occurs when the Security Management Function (SMF) packaged in the OPTEWCB LSAP cannot retrieve the EU shelf position from the core software. SMF writes this maintenance fault and shuts down when this occurs because it needs to know if it is running on EU-L or EU-R. This condition will occur during Windows boots or restarts, and results in no off-board comm over IP links (TWLU or SATCOM or CELLULAR).
- (2) This is an infrequent event, and the only corrective action that can be taken by Maintenance personnel is an EFB restart. If it should occur repeatedly, attempt to fault isolate with the following steps, but tell your EFB Administrator about this fault.

B. Possible Causes

- (1) Software

C. Fault Isolation Procedure

- (1) Make sure that the EFB has the correct aircraft model displayed per PIN check. Do the applicable task:
- 737-678: EFB Program Pin Test, AMM TASK 46-11-00-700-802
 - 747-400: EFB Program Pin Test, AMM TASK 46-11-00-700-802
 - 757: EFB Program Pin Test, AMM TASK 46-11-00-702-002
 - 767: EFB Program Pin Test, AMM TASK 46-11-00-702-008
 - 777: Electronic Flight Bag - Program Item Number (PIN) Check, AMM TASK 46-11-00-700-802
- (2) Go to the SYSTEM PAGE and restart the EFB. This fault is usually cleared by restarting the EFB.
- (3) Go to the EFB MAINTENANCE fault log.

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- ARO (a) If the fault message does not show with a new time-and-date stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new time-and-date stamp, continue with the next step.
- ARO (4) Refer this fault to your EFB Administrator, so the issue can be reported to Boeing.

D. Repair Confirmation

- (1) If an SMF STOPPED: SHELF UNKNOWN message is not displayed with a new time-and-date stamp after the EFB-L is restarted, the fault has been corrected.

————— END OF TASK —————

830. Communication Link Ground Access Problems - Fault Isolation

A. Description

- (1) Use this FIM procedure when you see these fault messages:
- OPM: <Security Server Name> FAILED
 - OPM: CONNECTION FAILED
 - SMF: <Firewall Rule Name> FAILED
 - SMF: VPN HALTED ERROR LIMIT
 - UNABLE TO SECURE: ACCT INVALID
 - UNABLE TO SECURE: CERT ERROR
 - UNABLE TO SECURE: DESTINATION
 - UNABLE TO SECURE: DEVICE ERROR
 - UNABLE TO SECURE: DIAL ERROR
 - UNABLE TO SECURE: INVALID CONF
 - UNABLE TO SECURE: TIMED OUT
- (2) These conditions are for information. They do not indicate a failure onboard the airplane or in the EFB system. It is possible these messages show there is a problem with the service provider or network that stops the IP comm link (TWLU or SATCOM or CELLULAR) from being AVAILABLE. Or, this may indicate why the COMM link stopped being AVAILABLE. When more than one of these faults occur on the same date and approximately the same time, they refer to the same issue.

B. Possible Causes

- (1) Failed air (EFB-L) to ground (BEGSS security and/or comm server) communication links
- (2) The network security configuration is not correct

C. Initial Evaluation

- (1) Go to the SYSTEM PAGE and restart the EFB.
- (2) Go to the EFB MAINTENANCE fault log. If the fault appears with a new date-and-time stamp, continue with the steps that follow.

D. Fault Isolation Procedure

- (1) There is no action that can be taken by Maintenance personnel for these fault messages. Refer these fault messages to your EFB Administrator, as the corrective action may require contacting the Link Service Provider or BEGSS IT Administrator to resolve the issue. The table below is provided to assist the EFB Administrator in determining the issue and appropriate corrective action.

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Maintenance Fault	EFB Administrator Information
UNABLE TO SECURE: TIMED OUT	Microsoft VPN Rasdial Error 792: The L2TP connection attempt failed because security negotiations timed out. When SMF receives 15 of these error codes it logs this fault and reduces the VPN dialing frequency from a 1m interval to a 10m interval, but it keeps trying and may eventually be successful.
UNABLE TO SECURE: DESTINATION	Microsoft VPN Rasdial Error 769: The specified destination is not reachable. When SMF receives 10 of these error codes it logs this fault and reduces the VPN dialing frequency from a 1m interval to a 10m interval, but it keeps trying and may eventually be successful.
UNABLE TO SECURE: DIAL ERROR	Microsoft VPN Rasdial Error 756: This connection is already being dialed. When SMF receives this error code all VPN attempts are halted until the EFB is restarted.
UNABLE TO SECURE: ACCT INVALID	Microsoft VPN Rasdial Error 649: The account does not have permission to dial in. When SMF receives this error code all VPN attempts are halted until the EFB is restarted. This error is usually a result of the airplane tail registration not being provisioned correctly on the VPN server.
UNABLE TO SECURE: CERT ERROR	Microsoft VPN Rasdial Error 786: The L2TP connection attempt failed because there is no valid machine certificate on your computer for security authentication. When SMF receives this error code all VPN attempts are halted until the EFB is restarted.
UNABLE TO SECURE: DEVICE ERROR	Microsoft VPN Rasdial Error 633: The modem (or other connecting device) is already in use or is not configured properly. When SMF receives this error code all VPN attempts are halted until the EFB is restarted.
UNABLE TO SECURE: INVALID CONF	Microsoft VPN Rasdial Error 691: Access was denied because the username and/or password was invalid on the domain. When SMF receives this error code all VPN attempts are halted until the EFB is restarted. This error is usually a result of the airplane tail registration not being provisioned correctly on the VPN server.
SMF: VPN HALTED ERROR LIMIT	SMF logs this error message in conjunction with the UNABLE TO SECURE: XXX messages in this table which result in all VPN attempts being halted until the EFB is restarted.
SMF: <Firewall Rule Name> FAILED	SMF logs this error message when it fails to establish a firewall rule as defined in a Windows W121 <side> io121.ini configuration file (MMMWW121 LSAP). This is usually caused by failing to resolve the DNS name (FQDN) of the BEGSS VPN server or the Jeppesen DDM server.

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Maintenance Fault	EFB Administrator Information
OPM: <Security Server Name> FAILED	eCMF logs this error message when the IP link provider (OpMessaging) fails to resolve the DNS name of the BEGSS SSL server as defined in the Windows W121 comm_customer_config.ini configuration file (MMMWW121 LSAP).
OPM: CONNECTION FAILED	eCMF logs this error message when a security tunnel (VPN or SSL) has been established from the airplane to BEGSS, but the airborne IP link provider (OpMessaging) fails to establish a connection to the OpM core on the BEGSS comm server. It is possible that the comm server is down, or the OpMCore and/or eCMF services on the comm server need to be restarted.

————— END OF TASK —————

831. EFB ACARS COMM FAILED Fault Message - Fault Isolation

A. Description

- (1) Use this FIM task for the fault message EFB ACARS COMM FAILED.
- (2) This fault is logged when the Communication Management Function (eCMF) fails to launch the ACARS link provider. A required ACARS configuration entry is not present or is not correct in the W121 LSAP.

B. Possible Causes

- (1) Software - Incorrectly built PART 121 WINDOWS LSAP

C. Initial Evaluation

- (1) Go to the SYSTEM PAGE and restart the EFB.
 - (a) If the EFB ACARS COMM FAIL fault message does not show with a new date-and-time stamp, then the fault is intermittent.
 - (b) If the EFB ACARS COMM FAIL fault message shows with a new time-and-date stamp, then do the fault isolation steps below.

D. Fault Isolation Procedure

- (1) Speak to your EFB Administrator to find if a W121 configuration LSAP was recently replaced.
 - (a) If yes, reinstall the W121 configuration LSAP. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-

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ARO 11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO 1) If this corrects the problem, notify the EFB Administrator of this fault message, as the corrective action may require a new software part.

ARO (b) If no, tell your EFB Administrator of this fault message. The corrective action may require a new software part.

ARO ——— END OF TASK ———

832. ECMF TAIL ID MISMATCH Fault Message - Fault Isolation

ARO A. Description

ARO (1) This fault occurs when the Tail ID for the captain's EFB and first officer's EFB do not agree.

ARO NOTE: Tail ID refers to the aircraft identification shown on the flight compartment placard. EFB
ARO Tail ID data is recorded in non-volatile memory of the captain's and first officer's EFB
ARO Display Units (DUs).

ARO (2) This fault may also be caused if the airplane EFB configuration also includes a Network File
ARO Server (NFS) and the NFS Tail ID does not match both EFB Tail IDs.

ARO B. Possible Causes

ARO (1) Tail ID on EFB-L disagrees with the Tail ID on EFB-R.

ARO (2) (ONLY FOR AIRPLANES WITH NETWORK FILE SERVER): Tail ID on the Network File Server
ARO (NFS) disagrees with the Tail ID on any EFB

ARO (3) Display Unit

ARO C. Initial Evaluation

ARO (1) Go to the IDENT PAGE on the captain's and first officer's EFB.

ARO (a) If the TAIL ID on EFB-L and EFB-R are not the same as the flight compartment placard,
ARO then do the fault isolation procedure that follows.

ARO D. Fault Isolation Procedure

ARO (1) From the IDENT PAGE, go to the SYSTEM PAGE and restart the EFB as follows:

ARO (a) Push the MENU bezel key.

ARO (b) Push SYSTEM PAGE.

ARO (c) Push RESTART.

ARO (d) Allow up to eight minutes for the system to start again, and for all main menu buttons to
ARO become active.

ARO (2) Set the captain's and first officer's TAIL ID record to agree with the flight compartment placard
ARO as follows:

ARO (a) Do a check of the Tail ID on the IDENT page and reset the TAIL ID. Do the applicable
ARO task:

ARO • 737-678: Display Unit - Tail Identification Check, AMM TASK 46-11-01-700-803

ARO • 747-400: Tail ID Check, AMM TASK 46-11-02-860-804

ARO • 757: Tail ID Check, AMM TASK 46-11-02-752-047

ARO • 767: Tail ID Check, AMM TASK 46-11-02-752-048

ARO • 777: TAIL ID Check, AMM TASK 46-11-03-860-805

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ARO E. Repair Confirmation

- ARO (1) If the conditions that follow occur, the fault has been corrected:
- ARO (a) On the IDENT PAGE of the captain's and first officer's EFB, each shows the TAIL ID number that agrees with the flight compartment placard.
- ARO (b) The fault log does not show a new fault with the message ECMF TAIL ID MISMATCH.

ARO ——— END OF TASK ———

ARO 833. TWLU CONTROLLER FAILED Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows in the FAULT LOG page when the EFB Network Controller stops receiving heartbeats from the TWLU link controller running on the EFB-L.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Fault Isolation Procedure

- ARO (1) From the EFB-L MAIN MENU, go to the SYSTEM PAGE and restart the EFB.
- ARO (a) If the TWLU CONTROLLER FAILED fault message does not show with a new time-and-date stamp, the fault was intermittent.
- ARO (b) If the TWLU CONTROLLER FAILED fault message shows with a new time-and-date stamp, refer this fault to your EFB Administrator so it can be reported to Boeing.

ARO ——— END OF TASK ———

ARO 834. TWLU LINK FAULT Fault Message - Fault Message

ARO A. Description

- ARO (1) This fault message shows in the FAULT LOG page when the TWLU or TWLU link controller does not operate correctly. This condition does not allow the TWLU to communicate with a Gatelink Access Point.

ARO B. Possible Causes

- ARO (1) Software
- ARO (2) Wiring

ARO C. Initial Evaluation

- ARO (1) Go to the SYSTEM PAGE and restart the EFB-L.
- ARO (2) Do a check of the FAULT LOG page as follows.
- ARO (a) If a TWLU LINK FAULT message does not show new time and date, the fault was intermittent.
- ARO (b) If a TWLU LINK FAULT message shows with a new time and date, continue with the fault isolation procedure.

ARO D. Fault Isolation Procedure

- ARO (1) Do one of these tasks:
- ARO • 777: TWLU System Test, AMM TASK 46-11-04-730-801, or TWLU System Test, AMM Task 46-11-04-730-802
- ARO (a) If the COMM MAINT HOME page does not show a TWLU link status of FAILED, the fault has been corrected.
- ARO (b) If the COMM MAINT HOME page shows a TWLU link status of FAILED, then continue.

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- ARO (2) Do one of these tasks:
- ARO • 777: TWLU Operational Test, AMM TASK 46-11-04-710-801, or TWLU Operational Test, AMM Task 46-11-04-710-802
- ARO (a) If the COMM MAINT HOME page does not show a TWLU link status of FAILED, the fault has been corrected.
- ARO (b) If the COMM MAINT HOME page shows a TWLU link status of FAILED, then continue.
- ARO (3) Do a continuity check of the Ethernet and Discretes wiring between the EU-L and TWLU (REF: THE BOEING COMPANY 777 WDM 46-11-11).
- ARO (a) If you find a problem, repair the wiring.

E. Repair Confirmation

- ARO (1) Go to the COMM MAINT HOME page.
- ARO (a) If the COMM MAINT HOME page does not show a TWLU link status of FAILED, the fault has been corrected.

————— END OF TASK —————

835. TWLU Configuration File Problem Fault Messages - Fault Isolation

A. Description

- ARO (1) Use this FIM task when you see one of these fault messages:
- ARO (a) COMM CONFIG MISSING OR INVALID FOR TWLU
 - ARO (b) TWLU FAIL
- ARO (2) One or both of these fault messages show on the EFB Maintenance Fault Log page when the TWLU Controller in EFB-L cannot perform its intended function. That is because a TWLU configuration file parameter is missing, or is invalid.

B. Possible Causes

- ARO (1) Software

ARO NOTE: The TWLU configuration parameters are in the EFB LSAPs that follow:

- ARO • MMMXX-W121-XXXX (PART 121 WINDOWS)
- ARO • BFBXX-W025-XXXX (PART 25 WINDOWS), or BFBXX-EBSC-XXXX (46 CORE OSS)

C. Fault Isolation Procedure

- ARO (1) Do a check of the PART 121 WINDOWS LSAP condition as follows:
- ARO (a) Go to the SYSTEM CONFIG page on EFB-L.
- ARO 1) If the PART 121 WINDOWS LSAP shows and is cyan in color, wait for the LSAP integrity check to be completed.
- ARO NOTE: The LSAP will be either white (passed) or amber (failed) after the integrity check is complete.
- ARO 2) If the PART 121 WINDOWS LSAP does not show or is amber in color, then do the steps that follow:
- ARO a) Install that software part. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

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- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

b) Do a check on the EFB MAINTENANCE fault log page for fault message “COMM CONFIG MISSING OR INVALID FOR TWLU” and/or “TWLU FAIL”. If they do not show with a new time-and-date stamp, the fault has been corrected.

If the PART 121 WINDOWS LSAP shows and is white in color, go to the next step.

Check of the PART 25 WINDOWS LSAP condition as follows:

Go to the SYSTEM CONFIG page on EFB-L.

If the PART 25 WINDOWS LSAP shows and is cyan in color, wait for the LSAP integrity check to be completed.

NOTE: The LSAP will be either white (passed) or amber (failed) after the integrity check is complete.

If the PART 25 WINDOWS LSAP does not show or is amber in color, then do the steps that follow:

a) Install that software part. Do one of these tasks:

- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

b) Do a check on the EFB MAINTENANCE fault log page for fault message “COMM CONFIG MISSING OR INVALID FOR TWLU” and/or “TWLU FAIL”. If they do not show with a new time-and-date stamp, the fault has been corrected.

If the PART 25 WINDOWS LSAP shows and is white in color, go to the next step.

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- ARO (3) Notify your EFB Administrator about this fault. The fault message(s) are indicating that one or both of these EFB configuration LSAPs are invalid.

ARO D. Repair Confirmation

- ARO (1) Go to the SYSTEM PAGE and restart EFB-L.
- ARO (a) Verify on the EFB MAINTENANCE fault log page that the fault message "COMM CONFIG MISSING OR INVALID FOR TWLU" and/or "TWLU FAIL" does not show with a new time-and-date stamp.
- ARO (b) If neither of these faults appear, the fault has been corrected.

ARO ——— END OF TASK ———

ARO 836. SMF: SSL CERT EXPORT FAILED Fault Message - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task for this fault message:
- ARO (a) SMF: SSL CERT EXPORT FAILED
- ARO (2) This fault occurs when the Security Management Function (SMF) in the OPTIEWCB LSAP cannot export the certificate used for SSL authentication with the BEGSS Security Server. This condition will result in no off-board communication over IP links (TWLU or SATCOM or CELLULAR).
- ARO (3) This is an internal software error, and the only corrective action by Maintenance personnel is an EFB restart. If it should occur again, use the steps that follow and refer this fault to your EFB Administrator.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Fault Isolation Procedure

- ARO (1) Go to the SYSTEM PAGE and restart the EFB. This fault is usually cleared by restarting the EFB.
- ARO (a) Go to the EFB MAINTENANCE fault log. If the shows with a new time-and-date stamp, refer this fault to your EFB Administrator so the issue can be reported to Boeing.
- ARO (b) If an SMF: SSL CERT EXPORT FAILED message does not show with a new time-and-date after the EFB-L is restarted, the fault has been corrected.

ARO ——— END OF TASK ———

ARO 839. ARPT MAP: (short part number) FAILURE CRC Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows on the FAULT LOG page when the AIRPORT MAP application is unserviceable. The Short Part Number (SPN) identifies a fault with a CRC failure in the supplier configuration, customer configuration or database LSAPs.
- ARO (a) The SYSTEM page shows one of these messages at the same time: APPLICATIONS FAILURE or ARPT MAP: <SPN> FAILURE CRC. If the time-stamp for the FAULT LOG message and SYSTEM FAULT LOG message are the same, then the messages are for the same fault.

ARO B. Possible Causes

- ARO (1) Software

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- #### D. Fault Isolation Procedure

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- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Repair Confirmation

- (1) Do a check of the operation of the AIRPORT MAP application.
 - (a) Enter the AIRPORT MAP application and make sure that the ADIRU DATA amber annunciation does not show on the map. Make sure that the directional ownership symbol (pink triangle) shows on the map in Heading-Up mode.
 - (b) If the maintenance message does not show on the FAULT LOG page with a new time-and-date stamp, then you corrected the fault.

————— END OF TASK —————

840. ARPT MAP: BOTH DB IN EFFECT Fault Message - Fault Isolation

A. Description

- (1) This fault message shows on the FAULT LOG page when the AIRPORT MAP application is unserviceable. This fault happens when two AIRPORT MAP databases are loaded and their effectivities are overlapping, with the current date within the overlap period.
 - (a) The SYSTEM page can show one of these messages at the same time: APPLICATIONS FAILURE or ARPT MAP: <SPN> FAILURE CRC. If the time-stamp for the FAULT LOG message and SYSTEM FAULT LOG message are the same, then the messages are for the same fault.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Go to the IDENT Page and make sure that the current date is within the overlap period of the two AIRPORT MAP databases.
- (2) Continue with the fault isolation procedure.

D. Fault Isolation Procedure

- (1) Make sure that you have the correct and serviceable software parts for the AIRPORT MAP databases.

NOTE: It may be necessary to get the part from Jeppesen.

 - (a) See your EFB Administrator for assistance.
- (2) Reinstall the AIRPORT MAP databases. Do one of these tasks:

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- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

Make sure that EU-L and EU-R each have the same database parts. Do the applicable task:

- 737-678: EU Software - Configuration Comparison, AMM TASK 46-11-02-860-804
- 747-400: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-860-803
- 757: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-752-042
- 767: EU Configuration Comparison, AMM TASK 46-11-02-752-043
- 777: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806

Restart the EFB.

(a) If the AIRPORT MAP does not launch, then it is necessary to send the current databases' part numbers to Jeppesen and obtain updated, correct airport map databases.

(b) Install the new AIRPORT MAP databases. Do one of these tasks:

- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

(c) Enter the AIRPORT MAP application.

(d) If the maintenance message does not show on the FAULT LOG page with a new time-and-date stamp, then you corrected the fault.

———— **END OF TASK** ————

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ARO 841. ARPT MAP: EFFECTIVE OVERLAP Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when two AIRPORT MAP databases are loaded and their
ARO effectivities are overlapping, with the current date outside the overlap period.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Go to the IDENT Page and see if the current date is outside the overlap period of the two
ARO AIRPORT MAP databases.
ARO (a) If yes, then continue with the fault isolation procedure.

ARO D. Fault Isolation Procedure

- ARO (1) Make sure that you have the correct and serviceable software parts for the AIRPORT MAP
ARO databases.
ARO NOTE: It may be necessary to get the part from Jeppesen. Refer to your EFB Administrator
ARO for assistance.
ARO (2) Reinstall the AIRPORT MAP database. Do one of these tasks:
ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.
ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.
ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.
ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
ARO (3) Make sure that EU-L and EU-R each have the same database parts installed. Do the
ARO applicable task:
ARO • 737-678: EU Software - Configuration Comparison, AMM TASK 46-11-02-860-804
ARO • 747-400: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-860-803
ARO • 757: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-752-042
ARO • 767: EU Configuration Comparison, AMM TASK 46-11-02-752-043
ARO • 777: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806
ARO (4) Restart the EFB.
ARO (5) If the fault appears with a new date and time stamp, then refer this fault to your EFB
ARO Administrator. It is necessary to send the current databases' part numbers to Jeppesen and
ARO obtain updated, correct airport map databases.
ARO (6) Install the applicable airport map database files. Do one of these tasks:
ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-

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- ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Repair Confirmation

- (1) Do a check of the operation of the AIRPORT MAP application.
- (a) Enter the AIRPORT MAP application and verify that the ADIRU DATA amber annunciation is not shown on the map. Verify that the directional ownship symbol (pink triangle) is showing on the map in Heading-Up mode.
- (b) If the maintenance message does not show on the FAULT LOG page with a new time-and-date stamp, you have corrected the fault.

————— END OF TASK —————

842. ARPT MAP: GPS OFFSET ERROR Fault Message - Fault Isolation

A. Description

- (1) This fault message shows when the efb25.ini configuration file in the BFBxx-W025-yyyy (or BFBW025 for short) LSAP or the BFBxx-EMSC-yyyy LSAP (or BFB-EMSC for short) fails. This fault may also show when the efb25.ini configuration file is missing or contains an invalid GPS offset value.
- (a) This is determined by which BFBxx-ADCP-yyyy LSAP is installed. The BFBEMSC will be installed only when the BFB57-ADCP-0007 or higher is installed. All other configurations use the BFBW025 LSAP.
- (b) The SYSTEM page can show one of these messages at the same time: APPLICATIONS FAILURE or ARPT MAP: <SPN> FAILURE CRC. If the time-stamp for the FAULT LOG message and SYSTEM FAULT LOG message are the same, then the messages are for the same fault.

B. Possible Causes

- (1) Software

C. Initial Evaluation

- (1) Make sure that the BFBW025 or BFBEMSC LSAP is the correct software and that it agrees with your airline configuration management document.
- (2) Do the applicable fault isolation procedure that follows for the installed software configuration of your airplane.

D. Fault Isolation Procedure - BFBW025 Installed

- (1) From the EFB MAIN MENU, go to the SYSTEM PAGE and select RESTART.
- (a) If the fault ARPT MAP: GPS OFFSET ERROR does not show with a new time stamp, then the fault was intermittent.

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- ARO (b) If the fault shows with a new time stamp, then continue.
- ARO (2) Reinstall the BFBW025 LSAP. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- ARO NOTE: It may be necessary to get the part from Boeing. Refer to your EFB Administrator for assistance.
- ARO (3) Make sure that EU-L and EU-R have the same database parts installed. Do the applicable task:
- ARO • 737-678: EU Software - Configuration Comparison, AMM TASK 46-11-02-860-804
 - ARO • 747-400: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-860-803
 - ARO • 757: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-752-042
 - ARO • 767: EU Configuration Comparison, AMM TASK 46-11-02-752-043
 - ARO • 777: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806
- ARO (a) If the other EFB does not have the same software, crossload the missing and different software parts. Do the applicable task:
- ARO • 737-678: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- ARO (4) Restart the EFB.
- ARO (5) If the AIRPORT MAP does not launch, then it is necessary to send the BFBW025 part number to Boeing and to get the correct BFBW025 LSAP from Boeing.
- ARO (6) Install the applicable BFBW025 LSAP. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-

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- ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Fault Isolation Procedure - BFBEMSC Installed

- (1) From the EFB MAIN MENU, go to the SYSTEM PAGE and select RESTART.
- (a) If the fault ARPT MAP: GPS OFFSET ERROR does not show with a new time stamp, then the fault was intermittent.
- (b) If the fault shows with a new time stamp, then continue.
- (2) Reinstall the BFBEMSC software part. Do one of these tasks:
- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

NOTE: It may be necessary to get the part from Boeing. Refer to your EFB Administrator for assistance.

- (3) Make sure that EU-L and EU-R each have the same database parts installed. Do the applicable task:
- 737-678: EU Software - Configuration Comparison, AMM TASK 46-11-02-860-804
 - 747-400: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-860-803
 - 757: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-752-042
 - 767: EU Configuration Comparison, AMM TASK 46-11-02-752-043
 - 777: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806
- (a) If the other EFB does not have the same software, crossload the missing and different software parts. Do the applicable task:
- 737-678: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

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- ARO (4) Restart the EFB.
- ARO (5) If the AIRPORT MAP does not launch, then it is necessary to send the BFBEMSC part number to Boeing and get the correct BFBEMSC LSAP from Boeing.
- ARO (6) Install the applicable BFBEMSC software part. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

F. Repair Confirmation

- ARO (1) Do a check of the operation of the AIRPORT MAP application.
- ARO (a) Enter the AIRPORT MAP application and verify that the ADIRU DATA amber annunciation is not shown on the map. Verify that the directional ownship symbol (pink triangle) is showing on the map in Heading-Up mode.
- ARO (b) If the maintenance message does not show on the FAULT LOG page with a new time-and-date stamp, you have corrected the fault.

————— END OF TASK —————

843. ARPT MAP: <SPN> MISSING Fault Message - Fault Isolation

A. Description

- ARO (1) This fault message shows on the EFB MAINTENANCE fault log and System log when the configuration files and/or database parts are missing.
- ARO (a) The SYSTEM page can show one of these messages at the same time: APPLICATIONS FAILURE or ARPT MAP: <SPN> MISSING. If the time-stamp for the FAULT LOG message and SYSTEM FAULT LOG message are the same, then the messages are for the same fault.

ARO NOTE: The short part number (SPN) is made from the first 3 characters and middle 4 characters of the software part number. For example, for the Part 121 Windows LSAP, the long part number is BFBxx-W121-yyyy. The short part number is BFBW121.

B. Possible Causes

- ARO (1) Software

C. Initial Evaluation

- ARO (1) From the EFB MAIN MENU, go to the SYSTEM PAGE and make sure the SPN in the fault message is missing.
- ARO (a) If the part does not show, then continue with the fault isolation procedure.

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ARO D. Fault Isolation Procedure

- (1) Install the LSAP identified in the <SPN> of the fault. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- NOTE:** Make sure that you have the correct and serviceable software part (supplier configuration, customer configuration or databases) available according to your airline configuration management document. It may be necessary to get the part from Jeppesen. Refer to your EFB Administrator for assistance.
- (2) Make sure that EU-L and EU-R each have the same database parts installed. Do the applicable task:
 - 737-678: EU Software - Configuration Comparison, AMM TASK 46-11-02-860-804
 - 747-400: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-860-803
 - 757: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-752-042
 - 767: EU Configuration Comparison, AMM TASK 46-11-02-752-043
 - 777: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806
- (a) If the other EFB does not have the same software, crossload the missing and different software parts. Do the applicable task:
 - 737-678: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (3) Restart the EFB.

ARO E. Repair Confirmation

- (1) Do a check of the operation of the AIRPORT MAP application.
 - (a) Enter the AIRPORT MAP application and verify that the ADIRU DATA amber annunciation is not shown on the map. Verify that the directional ownship symbol (pink triangle) is showing on the map in Heading-Up mode.
 - (b) If the maintenance message does not show on the FAULT LOG page with a new time-and-date stamp, you have corrected the fault.

— END OF TASK —

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ARO 844. ARPT MAP: XXXXX-XXXX-XXXX CORPT Fault Message - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows on the EFB MAINTENANCE fault log when two AIRPORT MAP
ARO databases are loaded and one is corrupted. With the long part number in the fault, the fault
ARO message identifies which of the two is corrupt.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) From the EFB MAIN MENU, go to the SYSTEM PAGE and select RESTART.
- ARO (a) If the fault ARPT MAP:XXXXX-XXXX-XXXX CORPT does not show with a new time
ARO stamp, then the fault was intermittent.
- ARO (b) If the fault shows with a new time stamp, continue with the fault isolation procedure that
ARO follows.

ARO D. Fault Isolation Procedure

- ARO (1) Install the LSAP with the same long part number that shows in the fault message. Do one of
ARO these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO NOTE: Make sure that you have the correct and serviceable software part AIRPORT MAP
ARO databases available according to your airline configuration management document. It
ARO may be necessary to get the part from Jeppesen. Refer to your EFB Administrator for
ARO assistance.

- ARO (2) Make sure that EU-L and EU-R each have the same database parts installed. Do the
ARO applicable task:
- ARO • 737-678: EU Software - Configuration Comparison, AMM TASK 46-11-02-860-804
 - ARO • 747-400: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-860-803
 - ARO • 757: Electronic Unit - Configuration Comparison, AMM TASK 46-11-02-752-042
 - ARO • 767: EU Configuration Comparison, AMM TASK 46-11-02-752-043
 - ARO • 777: Electronic Unit - Configuration Comparison, AMM TASK 46-11-03-860-806
- ARO (3) Restart the EFB.
- ARO (4) If the fault appears with a new time stamp, then it is necessary to send the current databases'
ARO part numbers to Jeppesen and get updated, correct airport map databases.

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- ARO (5) Install the applicable airport map database files. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Repair Confirmation

- ARO (1) Do a check of the operation of the AIRPORT MAP application.
- ARO (a) Enter the AIRPORT MAP application and make sure that the ADIRU DATA amber annunciation does not show and that the directional ownship symbol (pink triangle) does show on the map in Heading-Up mode.
- ARO (b) If the maintenance message does not show on the FAULT LOG page with a new time-and-date stamp, then you have corrected the fault.

— END OF TASK —

ARO 845. CHARTS: COVERAGE CODE MISMATCH Fault Message - Fault Isolation

A. Description

- ARO (1) This fault message shows on the EFB MAINTENANCE fault log when the Terminal Charts database and customer configuration part do not have the same coverage code.

B. Possible Causes

- ARO (1) Software

C. Initial Evaluation

- ARO (1) Go to the SYSTEM CONFIG page.
- ARO (a) Make sure that the LSAP with the nomenclature of 46 TERM CHARTS UMS shows and that it is valid.
- ARO (2) Go to the SYSTEM PAGE and restart Windows.
- ARO (3) Go to the EFB MAINTENANCE FAULT LOG and do a check of the following:
- ARO (a) If the CHARTS: COVERAGE CODE MISMATCH fault message does not show with a new date and time stamp, the fault was intermittent.
- ARO (b) If the fault shows with a new date and time stamp, then do the fault isolation procedure that follows.

D. Fault Isolation Procedure

- ARO (1) Install the LSAP with the nomenclature 46 TERM CHARTS UMS. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

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- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- ARO NOTE: When the software installation is complete, the system automatically restarts.
- ARO (2) Return to the MAIN MENU.
- ARO (3) Go to the EFB MAINTENANCE FAULT LOG.
- ARO (a) If the CHARTS: COVERAGE CODE MISMATCH fault message does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows, identify this fault to the EFB Administrator as a new Chart Database may be required. They should contact Jeppesen GSCC for support as this is a data subscription issue.
- ARO (4) When a new LSAP becomes available, install the LSAP with the nomenclature 46 TERM CHARTS UMS. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Repair Confirmation

- ARO (1) Go to the FAULT LOG page again and make sure that the CHARTS: COVERAGE CODE MISMATCH fault message does not show with a new date and time stamp.
- ARO (a) If the fault message does not show, or does not have a new time-and-date stamp, then you corrected the fault.

————— END OF TASK —————

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ARO 846. **CHARTS: CHART IS UNAVAILABLE Fault Message - Fault Isolation**

ARO A. **Description**

ARO (1) This fault message shows on the EFB MAINTENANCE fault log when the Terminal Charts Database finds that some charts are not serviceable.

ARO (a) The SYSTEM page can show this message at the same time: CHARTS: CHART IS UNAVAILABLE. The messages are for the same fault.

ARO B. **Possible Causes**

ARO (1) Software

ARO C. **Initial Evaluation**

ARO (1) Go to the SYSTEM CONFIG page and make sure that the 46 TERM CHARTS DB LSAP shows and that it is valid.

ARO (2) Do a Flight Initialization on the EFB.

ARO (3) Select Terminal Charts and make sure it shows a screen of charts that are not available for viewing.

ARO NOTE: If there are actual charts that are unavailable they will be listed when you select the Terminal Charts button on the Main Menu.

ARO D. **Fault Isolation Procedure**

ARO (1) Install the 46 TERM CHARTS DB LSAP. Do one of these tasks:

ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.

ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.

ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO NOTE: When the software installation task is complete, the system automatically restarts.

ARO (2) Go to the SYSTEM CONFIG page and make sure that the 46 TERM CHARTS DB software part shows and that it is valid.

ARO (a) If the part shows white in color, then continue.

ARO (3) Make sure that there is not a new fault message:

ARO (a) Go to the EFB MAINTENANCE FAULT LOG and make sure that the fault message does not show with a new date and time stamp.

ARO (b) If there is a new fault, notify the applicable EFB Administrator about this fault. The system is indicating that the CHARTS: INVALID and the EFB Administrator must provide a valid LSAP.

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ARO E. Repair Confirmation

- (1) Go to the FAULT LOG page again and make sure that the CHARTS: CHART IS UNAVAILABLE fault message does not show with a new date and time stamp.
 - (a) If the fault message does not show, or does not have a new time-and-date stamp, then you corrected the fault.

————— END OF TASK —————

ARO 847. CHARTS (short part number) FAILURE CRC - Fault Isolation

ARO A. Description

- (1) This fault message shows on the EFB MAINTENANCE fault log and System log when the configuration files and/or database parts fail CRC.

ARO B. Possible Causes

- (1) Software

ARO C. Initial Evaluation

- (1) Go to the SYSTEM CONFIG page.
- (2) Examine the SYSTEM CONFIG page for software parts that show amber in color.

NOTE: The short part number is made from the first 3 characters and middle 4 characters of the software part number (LSAP).

NOTE: Items that show amber in color have failed CRC, and are not serviceable. Items that show white in color passed CRC, and are serviceable.

- (a) Make a record of each software part that is not serviceable (shows amber in color).
- (b) For the unserviceable parts (parts that show amber), do the fault isolation procedure that follows.

ARO D. Fault Isolation Procedure

- (1) Install all of the software parts that are related to the failed application. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

NOTE: When the software installation task is complete, the system will automatically restart.
- (2) Go to the SYSTEM CONFIG page and make sure that all LSAPs show and they are white in color.
- (3) Make sure that there is not a new fault message:
 - (a) Go to the EFB MAINTENANCE FAULT LOG and make sure that the fault message does not show with a new date and time stamp.

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ARO (b) If there is a new fault, notify the applicable EFB Administrator about this fault. The system
ARO is indicating that the LSAP is corrupted and the EFB Administrator must provide a valid
ARO LSAP.

ARO E. Repair Confirmation

ARO (1) Go to the FAULT LOG page and make sure that the CHARTS: FAILURE CRC message does
ARO not show with a new date and time stamp.

ARO (a) If the fault message does not show, or does not have a new time-and-date stamp, then
ARO you corrected the fault.

ARO ——— END OF TASK ———

ARO 848. CHARTS (short part number) MISSING - Fault Isolation

ARO A. Description

ARO (1) This fault message shows on the EFB MAINTENANCE fault log and System log when the
ARO configuration files and/or database parts are not installed.

ARO NOTE: The short part number is made from the first 3 characters and middle 4 characters of
ARO the software part number (LSAP). EFB may show the LSAP part number in a
ARO shortened condition. The short part number [SPN] is made from the first 3 characters
ARO and middle 4 characters of the software part number (LSAP). For example, for the
ARO ADC Supplier Configuration part, the long part number BFBXX-ADCP-YYYY is
ARO shortened to short part number BFBADCP.

ARO B. Possible Causes

ARO (1) Software

ARO C. Initial Evaluation

ARO (1) Go to the SYSTEM CONFIG page and make sure that the LSAP identified by the short part
ARO number in the fault message does not show.

ARO D. Fault Isolation Procedure

ARO (1) Install the LSAP identified by the fault. Do one of these tasks:

- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO NOTE: When the software installation task completes, the system automatically restarts.

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E. Repair Confirmation

- (1) Go to the EFB MAINTENANCE FAULT LOG page again and make sure that the fault message does not show with a new date and time stamp.
 - (a) If the fault message does not show, or does not have a new time-and-date stamp, then you corrected the fault.

————— END OF TASK —————

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849. CHARTS (short part number) INVALID - Fault Isolation

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A. Description

- (1) This fault shows when the identified LSAP in the fault is INVALID. This can occur when a CRC calculation or an Auth Key check on the LSAP or a file within the LSAP fails.

NOTE: The short part number is made from the first 3 characters and middle 4 characters of the software part number (LSAP).

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B. Possible Causes

- (1) Software

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C. Initial Evaluation

- (1) Go to the SYSTEM CONFIG page.
- (2) If the LSAP identified in the fault message shows and is white, then do the fault isolation procedure below.

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D. Fault Isolation Procedure

- (1) Go to the SYSTEM PAGE and restart Windows.
- (2) Go to the EFB MAINTENANCE FAULT LOG page and make sure that the CHARTS: <short part number> INVALID shows with a new date time stamp.
 - (a) If no new CHARTS: INVALID fault shows, then the fault was intermittent.
 - (b) If a new CHARTS: INVALID fault shows, then continue.
- (3) Go to the SYSTEM CONFIG page.
 - (a) On the SYSTEM CONFIG page, make sure the LSAP shows and is white in color.
 - (b) Notify the applicable EFB Administrator about this fault. The system is indicating that the LSAP is corrupted and the EFB Administrator must provide a valid LSAP.
- (4) Install the new, valid LSAP. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-

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ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO NOTE: When the software installation task completes, the system automatically restarts.

ARO E. Repair Confirmation

ARO (1) Go to the EFB MAINTENANCE FAULT LOG page again and make sure that the fault message
ARO does not show with a new date and time stamp

ARO (a) If the fault message does not show, or does not have a new time-and-date stamp, then
ARO you corrected the fault.

ARO ——— END OF TASK ———

ARO 850. EFF: EFB SVC INIT FAIL - Fault Isolation

ARO A. Description

ARO (1) This fault message shows when the EFB SERVICES.jar was not successfully initialized.

ARO B. Possible Causes

ARO (1) Software

ARO C. Initial Evaluation

ARO (1) Restart the EFB.

ARO (a) If the fault shows again, do the fault isolation procedure

ARO D. Fault Isolation Procedure

ARO (1) Install the LSAP with the nomenclature SPN: OPTEFFB. Do one of these tasks:

ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.

ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.

ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.

ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Repair Confirmation

ARO (1) Go to the FAULT LOG page.

ARO (a) If the message does not show on the FAULT LOG page with a new time-and date stamp,
ARO you have corrected the fault.

ARO ——— END OF TASK ———

ARO 851. EFF: IOSERV INIT FAIL - Fault Isolation

ARO A. Description

ARO (1) This fault message shows when the ECSL was not successfully initialized.

ARO B. Possible Causes

ARO (1) Software

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- ARO (b) Push the SYSTEM page button.
- ARO (c) Push the EFB MAINTENANCE button.
- ARO (d) Push the LOAD MODE button.
- ARO **NOTE:** After you make the LOAD MODE selection, the touch screen buttons show cyan
- ARO in color, the message IN PROGRESS shows above the LOAD MODE button,
- ARO and then the LOAD MODE page shows. This sequence can take approx. three
- ARO minutes. The progression, after the message IN PROGRESS, will be: NO VIDEO
- ARO (yellow or amber in color) and then PLEASE WAIT... (white in color).
- ARO (e) From the LOAD MODE page, push the LINE SELECT KEY (LSK) adjacent to DISK
- ARO UTILITIES.
- ARO (f) On the DISK UTILITIES page, push the DELETE TEMP button.
- ARO (g) Push CONFIRM to initiate the DELETE TEMP process.
- ARO (h) Upon completion, push the BACK bezel key to return to the LOAD MODE page.
- ARO (i) Push the LSK adjacent to REBOOT TO MAIN and return the EFB to normal.
- ARO (j) Make sure the EFB MAIN MENU shows.
- ARO 1) If it doesn't show, push the MENU bezel key and the EFB MAIN MENU will be
- ARO displayed.

E. Repair Confirmation

- ARO (1) Go to the FAULT LOG page.
- ARO (a) If the message does not show on the FAULT LOG page with a new time-and date stamp,
- ARO you have corrected the fault.

— END OF TASK —

853. EFF: MESSAGING FAILURE - Fault Isolation

A. Description

- ARO (1) This fault message shows when there is a connection issue between the Electronic File Folder
- ARO (EFF) and the communication Infrastructure.

B. Possible Causes

- ARO (1) Software

C. Initial Evaluation

- ARO (1) Restart the EFB.
- ARO (a) If the fault shows again, do the fault isolation procedure.

D. Fault Isolation Procedure

- ARO (1) Check the communication link between the aircraft and ground servers. Follow the procedure
- ARO below:
- ARO (a) Push the MENU bezel key, or BACK bezel key to show the EFB MAIN MENU page.
- ARO (b) Push the SYSTEM page button.
- ARO (c) Push the EFB MAINTENANCE button.
- ARO (d) Push the COMM STATUS button.
- ARO (e) Validate that the link status is AVAILABLE.

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ARO (f) If the link is NO, or if the link is NOT AVAILABLE, make sure the airplane communication channels are turned on.

ARO NOTE: Note: If the EFB was just recently started up, it can take up to ten (10) minutes for the communication link to be established.

ARO (g) If the communication channels are turned on, restart the EFB.

ARO E. Repair Confirmation

ARO (1) Go to the FAULT LOG page.

ARO (a) If the message does not show on the FAULT LOG page with a new time-and date stamp, you have corrected the fault.

ARO ———— END OF TASK ————

ARO 854. ADC: INTERNAL APPLICATION ERROR - Fault Isolation

ARO A. Description

ARO (1) This fault message shows when the application dispatch controller (ADC) fails during configuration check. The fault will cause the ADC to stop or terminate Windows applications (or Windows applications will not start).

ARO B. Possible Causes

ARO (1) Software

ARO C. Initial Evaluation

ARO (1) Go to the SYSTEM PAGE and restart Windows.

ARO (a) If Windows applications start correctly and the ADC: INTERNAL APPLICATION ERROR fault message does not show with a new date-and-time stamp, then you corrected the fault.

ARO (b) If Windows applications do not start, then do the fault isolation steps below.

ARO D. Fault Isolation Procedure

ARO (1) Install the ADC APPLICATION short part number BFBADCP. Do one of these tasks:

ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.

ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.

ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO NOTE: BFB is the airline 3 letter designation or LSAP supplier designation.

ARO NOTE: EFB can show the LSAP part number in a shortened condition. The short part number [SPN] is made from the first 3 characters and middle 4 characters of the software part number (LSAP). For example, for the ADC Supplier Configuration part, the long part number BFBXX-ADCP-YYYY is shortened to short part number BFBADCP.

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ARO E. Repair Confirmation

- ARO (1) If Windows applications start correctly and the ADC: INTERNAL APPLICATION ERROR fault message (and/or the WINDOWS OR ADC FAILURE fault message) does not show with a new date-and-time stamp, then you corrected the fault.

ARO

————— END OF TASK —————

ARO 855. ADC: SYS SUPPLIER CFG FILE ERROR - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when the ADC cannot find the BFBADCS LSAP or the BFBADCS LSAP is invalid.

ARO NOTE: When you see this fault, the EFB logs should be downloaded before corrective action is taken.

ARO NOTE: The EFB system software has identified that Windows Part 25 LSAP is valid but cannot be read. There is no action that can be taken by Maintenance personnel for this fault message. Refer this fault to your EFB Administrator, as the corrective action may require a new software part.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Download the EFB log files and send them to Boeing. Go to: (General Introduction - P121 Fault Isolation, 46-19 TASK A00), and then see the shipping information for “Downloading and Sending Log Files” in SUBTASK 46-19-00-810-009.
- ARO (2) Go to the SYSTEM PAGE.

ARO D. Fault Isolation Procedure

- ARO (1) Go to the EFB MAINTENANCE fault log page and make sure that the ADC: SYS SUPPLIER CFG FILE ERROR fault message does not show.
- ARO (a) If the fault message does not show with a new date-and-time stamp, then you have corrected the fault
- ARO (b) If the fault reappears, continue with the next step.
- ARO (2) Refer this fault to your EFB Administrator, as the corrective action may require a new software part.

ARO

————— END OF TASK —————

ARO 856. ADC TAIL ID Problems - Fault Isolation

ARO A. Description

- ARO (1) Use this FIM task when you see fault message:

- ARO (a) ADC: TAIL ID OR MME ERROR, or
- ARO (b) ADC: TAIL ID REQUEST ERROR

- ARO (2) This fault message shows when the ADC software has identified that the TAIL ID or MAJOR MINOR Model data is not obtained within the allowed time. This is an unlikely occurrence.

ARO NOTE: In the event this fault repeats and causes halting of EFB System operation, the EFB logs should be downloaded before corrective action is taken.

ARO

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(1) Software

NOTE: If this fault repeats and causes halting of system operation, do the procedure below. Refer this fault to your EFB Administrator, as this issue will need to be identified to Boeing.

(1) Go to the SYSTEM PAGE and restart Windows.

NOTE: Restart the EFB by selecting RESTART on the SYSTEMS PAGE.

- (1) Go to the EFB MAINTENANCE fault log page and make sure that the ADC: TAIL ID OR MME ERROR or ADC: TAIL ID REQUEST ERROR fault message does not show.

(a) If the fault message does not show with a new date-and-time stamp, then you have corrected the fault.

(b) If the fault shows again with a new date and time stamp, refer this fault to your EFB Administrator so that the issue can be reported to Boeing.

———— **END OF TASK** ————

857. ADC: (short part number) FAILURE CRC - Fault Isolation

A. Description

(1) This fault message shows on the fault log page when the specified application fails CRC.

NOTE: The short part number [SPN] is made from the first 3 characters and middle 4 characters of the software part number (LSAP). For example, for the ADC Supplier Configuration part, the long part number BFBXX-ADCS-YYYY is shortened to short part number BFBADCS.

NOTE: Items that show amber in color have failed CRC, and are unserviceable. Items that show as white in color passed CRC, and are serviceable.

- (2) The APPLICATIONS FAILURE fault message also shows on the SYSTEM Page. If the two messages have the same date and time stamp, then they show the same fault.

B. Possible Causes

(1) Software

C. Initial Evaluation

(1) Go to the SYSTEM CONFIG page.

(2) Look at the SYSTEM CONFIG page for software parts that show amber in color.

(3) Go to the SYSTEM PAGE and restart Windows.

(4) Go to the EFB MAINTENANCE fault log and do the check that follows:

(a) Make sure that the ADC: [SPN] FAILURE CRC fault message does not show with a new date-and-time stamp.

(5) If the fault shows with a new date and time stamp, then go to the next step.

(6) Go to the SYSTEM CONFIG page.

(7) Look at the SYSTEM CONFIG page for software parts that show amber in color.

(a) For the unserviceable parts (parts that show amber), do the fault isolation procedure that follows.



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ARO D. Fault Isolation Procedure

- (1) Install each LSAP that showed amber in color. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- (2) Then, go to the SYSTEM PAGE and restart the EFB.

ARO E. Repair Confirmation

- (1) Go to the SYSTEM CONFIG page.
- (2) Make sure that the LSAP in the fault shows, and is white in color.
 - (a) If the part is present and shows white in color, then continue.
- (3) Make sure that there is not a new fault message: [SPN] FAILURE CRC.
 - (a) If the fault message does not show, or does not have a new timeand- date stamp, then you corrected the fault.

END OF TASK

ARO 858. ADC: ADC CUSTOMER CONFIG MISSING - Fault Isolation

ARO A. Description

- (1) This fault message shows when LSAP with the nomenclature of ADC CUSTOMER CONFIG is missing.

ARO B. Possible Causes

- (1) Software

ARO C. Initial Evaluation

- (1) Go to the SYSTEM CONFIG page.
- (2) On the SYSTEM CONFIG page, make sure that the LSAP in the fault message does not show (is missing from the list of software parts).
- (3) Make sure that the SYSTEM CONFIG is the same as the current airline configuration document.
 - (a) If the LSAP shows and does not indicate CRC failed (not amber), then there was an intermittent fault.
 - (b) If the LSAP does not show, and is listed on the current airline configuration document, continue with the fault isolation procedure below.

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ARO D. Fault Isolation Procedure

- (1) Refer this fault to the EFB Administrator, as the corrective action will require a valid LSAP. The system shows this part is not valid.
- (2) Install the new, valid LSAP. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Repair Confirmation

- (1) Look on the EFB MAINTENANCE fault log page and make sure that the ADC CUSTOMER CFG INVALID fault message does not show with a new date-and-time stamp.
 - (a) If it does not, then you have corrected the fault.

————— END OF TASK —————

ARO 860. H/W - S/W CONFIG MISMATCH

ARO A. Description

- (1) This fault message shows on the EFB MAINTENANCE fault log page when there is a major or minor model mismatch between the Windows PART 25 LSAP configuration and the Linux PART 25 LSAP.

ARO B. Possible Causes

- (1) Software

ARO C. Initial Evaluation

- (1) From the MAIN MENU, go to the SYSTEM CONFIG page.
- (2) Make sure that LSAP BFBXX-W025-XXXX shows and it is the same as the airline configuration:
 - (a) If it is not the same, go to the Fault Isolation Procedure - Software.
 - (b) If it is the same, go to the next step.
- (3) Make sure that the EFB has the correct aircraft model. Do the applicable task:
 - 737-678: EFB Program Pin Test, AMM TASK 46-11-00-700-802
 - 747-400: EFB Program Pin Test, AMM TASK 46-11-00-700-802
 - 757: EFB Program Pin Test, AMM TASK 46-11-00-702-002
 - 767: EFB Program Pin Test, AMM TASK 46-11-00-702-008
 - 777: Electronic Flight Bag - Program Item Number (PIN) Check, AMM TASK 46-11-00-700-802

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ARO (a) If it is not correct, go to the Fault Isolation Procedure - Hardware.

ARO D. Fault Isolation Procedure - Software

ARO (1) Install the BFBXX-W025-XXXX LSAP. Do one of these tasks:

- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Fault Isolation Procedure - Hardware

ARO (1) Reboot the EFB and do the applicable task:

- ARO • 737-678: EFB Program Pin Test, AMM TASK 46-11-00-700-802
- ARO • 747-400: EFB Program Pin Test, AMM TASK 46-11-00-700-802
- ARO • 757: EFB Program Pin Test, AMM TASK 46-11-00-702-002
- ARO • 767: EFB Program Pin Test, AMM TASK 46-11-00-702-008
- ARO • 777: Electronic Flight Bag - Program Item Number (PIN) Check, AMM TASK 46-11-00-700-802

ARO (a) If the PIN check does not match, check for a PROGRAM PIN PARITY fault and correct.

ARO F. Repair Confirmation

ARO (1) Make sure that the fault message does not show with a new date and time stamp.

- ARO (a) If the fault message does not show, or does not have a new time and date stamp, then you corrected the fault.

ARO ———— END OF TASK ————

ARO 861. LSAP (software part) MISSING - Fault Isolation

ARO A. Description

ARO (1) Use this FIM task when you see these fault messages show:

- ARO • [SPN] (short part number) MISSING
- ARO • BFBADCS MISSING
- ARO • ADC: [SPN] MISSING
- ARO • ADC: BFBADCS MISSING
- ARO • ADC: BFBEMSC MISSING

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- ARO (2) This fault message shows when an LSAP is missing. The missing LSAP will be identified by a short part number.

ARO NOTE: The short part number [SPN] is made from the first 3 characters and middle 4
ARO characters of the software part number (LSAP). For example, for the Part 121
ARO Windows LSAP, the long part number BFBXX-W121-YYYY is shortened to short part
ARO number BFBW121.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Go to the SYSTEM CONFIG page.
- ARO (2) On the SYSTEM CONFIG page, see if the LSAP in the fault shows or does not show.
- ARO (3) Make sure that SYSTEM CONFIG page is the same as the current airline configuration document.
- ARO (a) If the LSAP shows and it does not indicate CRC failed, then there was an intermittent fault.
- ARO (b) If the LSAP does not show, continue with the fault isolation procedure below.
- ARO (c) If the LSAP does not show, and is not listed on the current airline configuration document, contact the EFB Administrator and inform them of the missing LSAP.

ARO D. Fault Isolation Procedure

- ARO (1) Go to the SYSTEM PAGE and restart Windows.
- ARO (2) Go to the EFB MAINTENANCE fault log page and do a check of the following:
- ARO (a) Make sure that the [LSAP] MISSING fault message does not show with a new date-and-time stamp.
- ARO (b) If the fault shows again, go to the next step.
- ARO (3) Install the missing LSAP. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Repair Confirmation

- ARO (1) Make sure that the [LSAP] MISSING fault message does not show with a new date-and-time stamp.
- ARO (a) If it does not, then you corrected the fault.

ARO ———— END OF TASK ————

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ARO 862. LSAP (software part) INVALID - Fault Isolation

ARO A. Description

- ARO (1) Use this task when one (or more) of these fault messages show:
- ARO • ADC: [SPN] (short part number) INVALID
 - ARO • ADC: BFBADCS INVALID
 - ARO • ADC: BFBEMSC INVALID
 - ARO • BFBADCS INVALID
- ARO (2) This fault message shows when the LSAP is unserviceable because the system found it to be invalid. The INVALID LSAP will be identified by a short part number.
- ARO NOTE: The short part number [SPN] is made from the first 3 characters and middle 4
- ARO characters of the software part number (LSAP). For example, for the Part 121
- ARO Windows LSAP, the long part number BFBXX-W121-YYYY is shortened to short part
- ARO number BFBW121.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Go to the SYSTEM CONFIG page.
- ARO (2) On the SYSTEM CONFIG page, make sure that the LSAP in the fault shows.
- ARO (3) Make sure that the SYSTEM CONFIG is the same as the current airline configuration
- ARO document.

ARO D. Fault Isolation Procedure

- ARO (1) Go to the SYSTEM PAGE and restart Windows.
- ARO (2) Go to the EFB MAINTENANCE fault log page and do a check of the following:
- ARO (a) Make sure that the [LSAP] INVALID fault message does not show with a new
 - ARO date-and-time stamp.
 - ARO (b) If the fault shows with a new date-and-time stamp, go to the next step.
- ARO (3) Install the new LSAP. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
 - ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
 - ARO 801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
 - ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
 - ARO 804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
 - ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
 - ARO 022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
 - ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
 - ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

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ARO E. Repair Confirmation

- ARO (1) Make sure that the [LSAP] INVALID fault message does not show with a new date-and-time stamp.
- ARO (a) If the fault does not show with a new date-and-time stamp, then you corrected the fault.

ARO ——— END OF TASK ———

ARO 863. ADC: H/W - S/W CONFIG MISMATCH - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows on the EFB MAINTENANCE fault log page when there is a major or minor model mismatch between the BFBEMSC LSAP configuration and the EFB LINUX configuration.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) From the MAIN MENU, go to the SYSTEM CONFIG page.
- ARO (2) On the SYSTEM CONFIG page, make sure that BFBXX-EMSC-XXXX shows and it is the same as the airline configuration:
- ARO (a) If it is not the same, go to the Fault Isolation Procedure - Software.
- ARO (b) If it is the same, go to the next step.
- ARO (3) Make sure that the EFB has the correct aircraft model. Do the applicable task:
- ARO • 737-678: EFB Program Pin Test, AMM TASK 46-11-00-700-802
 - ARO • 747-400: EFB Program Pin Test, AMM TASK 46-11-00-700-802
 - ARO • 757: EFB Program Pin Test, AMM TASK 46-11-00-702-002
 - ARO • 767: EFB Program Pin Test, AMM TASK 46-11-00-702-008
 - ARO • 777: Electronic Flight Bag - Program Item Number (PIN) Check, AMM TASK 46-11-00-700-802
- ARO (a) If it is not correct, go to the Fault Isolation Procedure - Hardware.

ARO D. Fault Isolation Procedure - Software

- ARO (1) Install the BFBXX-EMSC-XXXX LSAP. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

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- 737-678: EFB Program Pin Test, AMM TASK 46-11-00-700-802
- 747-400: EFB Program Pin Test, AMM TASK 46-11-00-700-802
- 757: EFB Program Pin Test, AMM TASK 46-11-00-702-002
- 767: EFB Program Pin Test, AMM TASK 46-11-00-702-008
- 777: Electronic Flight Bag - Program Item Number (PIN) Check, AMM TASK 46-11-00-700-802

(a) If the PIN check does not match, check for a PROGRAM PIN PARITY fault and correct.

(a) If the fault message does not show, or does not have a new time and date stamp, then you corrected the fault.

———— **END OF TASK** ————

- APPLICATIONS FAILURE
- ADC: APPLICATIONS FAILURE

- (2) An “APPLICATIONS FAILURE” or “ADC: APPLICATIONS FAILURE” fault message is logged in the EFB Maintenance FAULT LOG pages when an <application name> FAILED fault is triggered. These two messages are for the same fault and will have the same date and time stamp in the FAULT LOG page.

- (1) No repair action is required for the APPLICATIONS FAILURE fault. The APPLICATIONS FAILURE message is to correlate the SYSTEM FAULT LOG "APPLICATIONS FAILURE" message with the maintenance fault.

———— **END OF TASK** ————

- (1) This fault message shows in the FAULT LOG page when an operationally approved WINDOWS application has terminated unexpectedly.

NOTE: The <application button name> can be the name of any operationally approved application (for example, PERFORMANCE or TERMINAL CHARTS).

(1) Software

(3) Make sure that the SYSTEM CONFIG is the same as the current airline configuration document.

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- ARO (4) Go to the SYSTEM PAGE and restart Windows.
- ARO (5) Go to the EFB MAINTENANCE fault log page and do a check of the following:
- ARO (a) Make sure that the FAILED fault message does not show with a new date-and-time stamp.
- ARO (6) If the fault shows with a new date and time stamp, then do the Fault Isolation procedure that follows:
- ARO **NOTE:** An "ADC: APPLICATIONS FAILURE" fault message also shows in both SYSTEM and FAULT LOG pages when an <application button name> FAILED fault is triggered. These two messages are for the same fault and will have the same date and time stamp in the FAULT LOG page.
- ARO **NOTE:** If a failed application does not show on the MAIN MENU, the APPLICATIONS FAILURE message will not show on the SYSTEM PAGE.
- ARO **NOTE:** When a background or maintenance application fails, a coded name is used in the <application button name> field. The code identifies the application software name or part number. For example, "OPTEWCB FAILED" identifies the software part number OPTxx- EWCB-zzzz.

D. Fault Isolation Procedure

- ARO (1) Install each LSAP that shows in the fault. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

E. Repair Confirmation

- ARO (1) Make sure that fault message does not show with a new date-and-time stamp.
- ARO (a) If the fault does not show with a new date-and-time stamp, then you corrected the fault.

— END OF TASK —

866. ADC: (application name) FAILED LAUNCH - Fault Isolation

A. Description

- ARO (1) This fault message shows in the FAULT LOG page when an operationally approved WINDOWS application has failed to start.
- ARO **NOTE:** The <application button name> can be the name of any operationally approved application (for example, PERFORMANCE or TERMINAL CHARTS).

B. Possible Causes

- ARO (1) Software

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ARO

C. Initial Evaluation

ARO

- (1) Go to the SYSTEM CONFIG page.

ARO

- (2) On the SYSTEM CONFIG page, make sure that you see the LSAP that is identified in the fault.

ARO

- (3) Make sure that the SYSTEM CONFIG is the same as the current airline configuration document.

ARO

NOTE: An "ADC: APPLICATIONS FAILURE" fault message also shows in both SYSTEM and FAULT LOG pages when an <application button name> FAILED fault is triggered. These two messages are for the same fault and will have the same date and time stamp in the FAULT LOG page.

ARO

NOTE: If a failed application does not show on the MAIN MENU, the APPLICATIONS FAILURE message will not show on the SYSTEM PAGE.

ARO

ARO

NOTE: When a background or maintenance application fails, a coded name is used in the <application button name> field. The code identifies the application software name or part number. For example, "OPTWCB FAILED" identifies the software part number OPTxx- EWCB-zzzz.

ARO

ARO

D. Fault Isolation Procedure

ARO

- (1) Install each LSAP in the fault message. Do one of these tasks:

ARO

- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

ARO

ARO

ARO

- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.

ARO

ARO

ARO

- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.

ARO

ARO

- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO

ARO

- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO

E. Repair Confirmation

ARO

- (1) Make sure that the fault message does not show with a new date and time stamp.

ARO

- (a) If the fault message does not show with a new date and time stamp, then you corrected the fault.

ARO

ARO

————— END OF TASK —————

ARO

867. ADC: (application name) FAILED PROCESS - Fault Isolation

ARO

A. Description

ARO

- (1) This fault message shows in the FAULT LOG page when an operationally approved WINDOWS application has failed to follow an EFB protocol and was terminated.

ARO

NOTE: The <application button name> can be the name of any operationally approved application (for example, PERFORMANCE or TERMINAL CHARTS).

ARO

ARO

B. Possible Causes

ARO

- (1) Software

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ARO C. Initial Evaluation

- (1) Go to the SYSTEM CONFIG page.
- (2) Make sure that the LSAP in the fault message shows on the SYSTEM CONFIG page.
- (3) Make sure that the SYSTEM CONFIG is the same as the current airline configuration document.

NOTE: An "ADC: APPLICATIONS FAILURE" fault message also shows in both SYSTEM and FAULT LOG pages when an <application button name> FAILED fault is triggered. These two messages are for the same fault and will have the same date and time stamp in the FAULT LOG page.

NOTE: If a failed application does not show on the MAIN MENU, the APPLICATIONS FAILURE message will not show on the SYSTEM PAGE.

NOTE: When a background or maintenance application fails, a coded name is used in the <application button name> field. The code identifies the application software name or part number. For example, "OPTWCB FAILED" identifies the software part number OPTxx- EWCB-zzzz.

ARO D. Fault Isolation Procedure

- (1) Install each LSAP that shows in the fault message. Do one of these tasks:
 - 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.
 - 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.
 - 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.
 - 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO E. Repair Confirmation

- (1) Look at the fault log page to see if the fault message shows with a new date and time stamp.
 - (a) If it does not show with a new date and time stamp, then you corrected the fault.

————— END OF TASK —————

ARO 868. ADC: (software part) CFG FAILED - Fault Isolation

ARO A. Description

- (1) This fault message shows in the FAULT LOG page when an operationally approved WINDOWS LSAP does not match the current Tail ID, Major Model, Minor Model and/or Engine configuration.

ARO B. Possible Causes

- (1) Software

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ARO

C. Initial Evaluation

ARO

- (1) Go to the SYSTEM CONFIG page.

ARO

- (2) Make sure that the LSAP in the fault shows on the SYSTEM CONFIG page.

ARO

ARO

- (3) Make sure that the software on the SYSTEM CONFIG is the same as the current airline configuration document.

ARO

D. Fault Isolation Procedure

ARO

- (1) Delete each LSAP that was listed in the maintenance fault. Do the applicable task:

ARO

- 737-678: Electronic Unit - Software Removal, AMM TASK 46-11-02-860-801.

ARO

- 747-400: Electronic Unit - Software Removal, AMM TASK 46-11-02-860-802.

ARO

- 757: Electronic Unit Software Removal, AMM TASK 46-11-02-072-036.

ARO

- 767: EU Software Delete, AMM TASK 46-11-02-072-037.

ARO

- 777: Electronic Unit - Software Removal, AMM TASK 46-11-03-860-804.

ARO

- (2) Install each LSAP that was deleted and that also shows in the current airline configuration document. Do one of these tasks:

ARO

- 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-801.

ARO

- 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-804.

ARO

- 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-022.

ARO

- 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.

ARO

- 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

ARO

E. Repair Confirmation

ARO

- (1) Make sure that the fault message does not show with a new date and time stamp.

ARO

- (a) If the fault message does not show with a new date and time stamp, then you corrected the fault.

ARO

ARO

————— END OF TASK —————

ARO

869. ELA: <software name> HAS TMME MISMATCH - Fault Isolation

ARO

A. Description

ARO

- (1) This fault message shows when the identified ADEL-Eligible LSAP is for a Tail ID-Major Model-Minor Model-Engine (TMME) combination that is not the same as the TMME information configured on the EFB.

ARO

ARO

ARO

B. Possible Causes

ARO

- (1) Incorrectly assigned software configuration

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- ARO
- C. Initial Evaluation**
- ARO (1) Remove power from and then restore power to the EFB.
- ARO (a) If the fault shows with a new time-and-date stamp, tell your EFB Administrator about this
- ARO fault.
- ARO (b) If the fault message does not show, or does not have a new time and date stamp, the
- ARO fault was intermittent.
- ARO
- D. Fault Isolation Procedure**
- ARO (1) There is no action that can be taken by Maintenance personnel for this fault message. Once
- ARO notified by your EFB Administrator that the assigned configuration has been corrected, do the
- ARO Repair Confirmation steps below.
- ARO
- E. Repair Confirmation**
- ARO (1) Make sure that there is not a new fault for ELA: <software name> HAS TMME MISMATCH.
- ARO (2) If the fault message does not show, or if it does not have a new time-and-date stamp, the fault
- ARO is corrected.
- ARO
- **END OF TASK** —————

ARO 870. ELA: <LSAP part number> CONFLICT - Fault Isolation

- ARO
- A. Description**
- ARO (1) This fault message shows when a conflict detection involving an ADEL- eligible LSAP resulted
- ARO in unresolved conflict.
- ARO NOTE: It is possible to see two fault messages, one that shows a part number and one that
- ARO does not. Look at the date and time to make sure the messages are for the same fault.
- ARO The fault message: ELA <LSAP PART NUMBER> will show as many times as
- ARO necessary to identify all of the specific software part numbers that caused the
- ARO condition.
- ARO
- B. Possible Causes**
- ARO (1) Software
- ARO
- C. Initial Evaluation**
- ARO (1) Restart the EFB.
- ARO (a) If the fault shows with a new time-and-date stamp, do the fault isolation procedure.
- ARO (b) If the fault message does not show, or does not have a new time and date stamp, the
- ARO fault was intermittent.
- ARO (c) Refer the conflicting LSAP numbers to your EFB Administrator and request instruction as
- ARO to which LSAPs should be removed.
- ARO
- D. Fault Isolation Procedure**
- ARO (1) From the Main MENU, go to the STAGING AREA page.
- ARO (a) Select DELETE LSAPS.
- ARO (b) DELETE the LSAP(s) identified by the EFB Administrator.
- ARO (c) Go to the EFB MAIN Menu and wait for five (5) minutes.
- ARO (d) If the MEMO icon appears next to the DATA LOAD button, press the DATA LOAD button
- ARO and select the LOAD button.
- ARO

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ARO E. Repair Confirmation

- ARO (1) Make sure that there is not a new fault.
- ARO (a) If the fault message does not show, or does not have a new time and date stamp, the
- ARO fault is corrected.

ARO ——— END OF TASK ———

ARO 871. ELA: AUTO-LOAD ERROR - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when an error prevents successful activation and/or deletion of one
- ARO or more ADEL-eligible LSAPs that were loaded by maintenance personnel with EFB Load
- ARO Mode at boot up of the EFB.

ARO B. Possible Causes

- ARO (1) Software
- ARO (2) Hardware

ARO C. Initial Evaluation

- ARO (1) Restart the EFB.
- ARO (a) If the fault shows with a new time and date stamp, do the fault isolation procedure.
- ARO (b) If the fault message does not show, or does not have a new time and date stamp, the
- ARO fault was intermittent.

ARO D. Fault Isolation Procedure

- ARO (1) Download all EFB log files and send them to Boeing. Go to: (General Introduction - P121 Fault
- ARO Isolation, 46-19 TASK A00), and then see the shipping information for "Downloading and
- ARO Sending Log Files" in SUBTASK 46-19-00-810-009.
- ARO (2) Delete all parts on the EFB with the LOAD MENU. Do the applicable task:
- ARO • 737-678: Electronic Unit - Software Removal, AMM TASK 46-11-02-860-801.
- ARO • 747-400: Electronic Unit - Software Removal, AMM TASK 46-11-02-860-802.
- ARO • 757: Electronic Unit Software Removal, AMM TASK 46-11-02-072-036.
- ARO • 767: EU Software Delete, AMM TASK 46-11-02-072-037.
- ARO • 777: Electronic Unit - Software Removal, AMM TASK 46-11-03-860-804.
- ARO (3) Install all parts on the EFB with the LOAD MENU. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
- ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
- ARO 801.
- ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
- ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
- ARO 804.
- ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
- ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
- ARO 022.
- ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
- ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
- ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
- ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.

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- ARO (4) Make sure that there is not a new fault for ELA: AUTO-LOAD ERROR.
- ARO (a) If the fault message does not show, or does not have a new time and date stamp, the
- ARO fault is corrected.
- ARO (5) If the fault message continues, download all log files from the EFB with a Portable Data Loader
- ARO or wirelessly via the eFTS tool.
- ARO (a) Provide the log files to your EFB Administrator to send to Boeing for investigation.

————— END OF TASK —————

ARO 872. ELA: LOAD ERROR - Fault Isolation

ARO A. Description

- ARO (1) This fault message shows when an error prevents successful activation of one or more
- ARO ADEL-eligible LSAPs.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Make sure that one or more of the following ADEL-eligible applications loaded on the EFB
- ARO have successfully restarted (application buttons show grey) following the software load
- ARO operation.
- ARO • TERMINAL CHARTS
- ARO • AIRPORT MAP
- ARO • DOCUMENTS
- ARO • PERFORMANCE
- ARO (a) If no, then go to the Fault Isolation Procedure below.
- ARO (b) If yes, then select INITIALIZE FLIGHT and do a check of the IDENT page.
- ARO 1) Do a check to make sure the software parts are white in color and the activity date
- ARO is correct.
- ARO 2) Continue with the Fault Isolation Procedure below.

ARO D. Fault Isolation Procedure

- ARO (1) From the MAIN MENU, go to the EFB SYSTEM Page.
- ARO (2) Push the RESTART button to restart Windows.
- ARO (3) From the MAIN MENU, look to see if there is a MEMO icon message next to the DATA LOAD
- ARO button.
- ARO (a) If yes, then push DATA LOAD and LOAD.
- ARO (b) If no, make sure that there is not a new fault for ELA: LOAD ERROR.
- ARO (4) If the fault message does not show, or does not have a new time-and-date stamp, then you
- ARO corrected the fault.
- ARO (5) If the fault message continues to show:
- ARO (a) Download all EFB log files using a Portable Data Loader or wirelessly via the eFTS tool
- ARO and send them to Boeing.
- ARO (b) Provide log files to EFB Administrator to send to Boeing for investigation.

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- ARO (c) Go to: (General Introduction - P121 Fault Isolation, 46-19 TASK A00), and then see the
ARO shipping information for "Downloading and Sending Log Files" in
ARO SUBTASK 46-19-00-810-009.

ARO ———— END OF TASK ————

ARO 873. ELA: ADEL_LSAP.DB WRITE FAILED

ARO A. Description

- ARO (1) This fault message shows when the ELA is unable to write the ADEL_LSAP.db to the G:\drive
ARO on a Class 3 EFB.

ARO B. Fault Isolation Procedure

- ARO (1) If you see this fault message on a different Boeing airplane model that is not the 787, this is a
ARO nuisance fault and it can be ignored. The ELA function is serviceable and will continue to
ARO operate.

ARO NOTE: This fault only negatively impacts a Boeing Class 3 Block Point 4.x EFB installed on a
ARO 787.

ARO ———— END OF TASK ————

ARO 874. DDM: GROUND CERT NOT RECOGNIZED - Fault Isolation

ARO A. Description

- ARO (1) This fault message indicates that DMEP/CDAF did not accept the certificate passed from DDM
ARO to the EFB for authentication purposes.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Restart the EFB.
ARO (a) Push the MENU bezel key.
ARO (b) Push the SYSTEM PAGE button.
ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again with a new date
ARO and time stamp after the restart.
ARO (a) If no, you corrected the fault.
ARO (b) If yes, do the Fault Isolation Procedure that follows.

ARO D. Fault Isolation Procedure

- ARO (1) Download the dfim.log, smf.log, and fault.log files from the EFB.
ARO (2) Refer the fault along with the log file to the EFB Administrator.

ARO ———— END OF TASK ————

ARO 875. DDM: AIRBORNE CERT REJECTED - Fault Isolation

ARO A. Description

- ARO (1) This fault message is an indication that DDM did not accept the certificate passed from the
ARO EFB for authentication purposes.

ARO B. Possible Causes

- ARO (1) Software

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ARO **C. Initial Evaluation**

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation Procedure that follows.

ARO **D. Fault Isolation Procedure**

- ARO (1) Download the dfim.log file from the EFB.
- ARO (2) Refer the fault along with the log file to your EFB Administrator.

ARO ———— **END OF TASK** ————

ARO **876. DDM: TAIL ID REJECTED - Fault Isolation**

ARO **A. Description**

- ARO (1) This fault message indicates that the Tail ID of the EFB is not in DDM.

ARO **B. Possible Causes**

- ARO (1) Software

ARO **C. Initial Evaluation**

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation Procedure that follows.

ARO **D. Fault Isolation Procedure**

- ARO (1) Refer the fault to your EFB Administrator.

ARO ———— **END OF TASK** ————

ARO **877. DDM: CUSTOMER ID REJECTED - Fault Isolation**

ARO **A. Description**

- ARO (1) This fault message indicates that the Customer ID in the JEPDMEP.ini file was not recognized by DDM. The ID is either not correct or is not set up in DDM.

ARO **B. Possible Causes**

- ARO (1) Software

ARO **C. Initial Evaluation**

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.

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- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation
- ARO Procedure that follows.

ARO D. Fault Isolation Procedure

- ARO (1) Download the dfim.log file from the EFB.
- ARO (2) Refer the fault along with the log file to your EFB Administrator.

ARO ———— END OF TASK ————

ARO 878. DDM: SERVER NOT RESPONDING - Fault Isolation

ARO A. Description

- ARO (1) This fault message indicates that while communication should be available, the DDM server
- ARO has not responded within a timeout period.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation
- ARO Procedure that follows.

ARO D. Fault Isolation Procedure

- ARO (1) Download the dfim.log file from the EFB.
- ARO (2) Refer the fault along with the log file to your EFB Administrator.

ARO ———— END OF TASK ————

ARO 879. DDM: INVALID HOST NAME - Fault Isolation

ARO A. Description

- ARO (1) This fault message indicates that the configuration of DFIM/CDAF is not correct. An invalid
- ARO Host Name is defined in the JEPDMEP.ini file.

ARO B. Possible Causes

- ARO (1) Software

ARO C. Initial Evaluation

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the next step.
- ARO (3) Make sure that TWLU or CELLULAR IP communication is AVAILABLE.

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ARO (4) If communications are available, then do the Fault Isolation Procedure that follows.

ARO **D. Fault Isolation Procedure**

ARO (1) Download the dfim.log and smf.log files from the EFB.

ARO (2) Refer the fault along with the log files to your EFB Administrator.

ARO ——— **END OF TASK** ———

ARO **880. DDM: SERVER RESOURCE NOT FOUND - Fault Isolation**

ARO **A. Description**

ARO (1) This fault message indicates that the configuration of DFIM/CDAF is not correct, the DDM
ARO server is offline, or that the server is functioning but the VPN connection to the server is
ARO incorrectly configured.

ARO **B. Possible Causes**

ARO (1) Software

ARO **C. Initial Evaluation**

ARO (1) Restart the EFB.

ARO (a) Push the MENU bezel key.

ARO (b) Push the SYSTEM PAGE button.

ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.

ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.

ARO (b) If the fault shows with a new date and time stamp, then continue with the next step.

ARO (3) Make sure that either TWLU or CELLULAR IP communication is AVAILABLE.

ARO (4) If communications are available, then do the Fault Isolation Procedure that follows.

ARO **D. Fault Isolation Procedure**

ARO (1) Download the dfim.log and smf.log files from the EFB.

ARO (2) Refer the fault along with the log files to your EFB Administrator.

ARO ——— **END OF TASK** ———

ARO **881. DDM: CLIENT CERT NOT FOUND - Fault Isolation**

ARO **A. Description**

ARO (1) This fault message indicates that DMEP/CDAF was not able to locate the dynamic certificate
ARO on the EFB.

ARO **B. Possible Causes**

ARO (1) Misconfiguration

ARO (2) Software

ARO **C. Initial Evaluation**

ARO (1) Make sure that the TAIL ID on the IDENT page is correct.

ARO (2) Make sure that the Wireless Certificate parts are loaded.

ARO (3) Restart the EFB.

ARO (4) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.

ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.

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ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation
ARO Procedure that follows.

ARO D. Fault Isolation Procedure

- ARO (1) Reinstall the Wireless Certification parts. Do one of these tasks:
- ARO • 737-678: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-803, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 801.
 - ARO • 747-400: Electronic Unit - Software Installation with Portable Data Loader, AMM TASK 46-11-
ARO 02-470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-470-
ARO 804.
 - ARO • 757: Electronic Unit - Software Installation Using Portable Data Loader, AMM TASK 46-11-
ARO 02-472-004, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-02-472-
ARO 022.
 - ARO • 767: EFB EU Software Installation with the ARINC 615A Data Loader, AMM TASK 46-11-02-
ARO 472-004, or Crossload EU Software, AMM TASK 46-11-02-472-023.
 - ARO • 777: Electronic Unit Software Installation Using Portable Data Loader, AMM TASK 46-11-03-
ARO 470-802, or Electronic Unit - Crossload Software Installation, AMM TASK 46-11-03-470-801.
- ARO (2) Reboot to Main.
- ARO (3) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the next step.
- ARO (4) Refer the fault to your EFB Administrator.

ARO ——— END OF TASK ———

ARO 883. DDM: UNSERVICEABLE CONFIG - Fault Isolation

ARO A. Description

- ARO (1) This fault message indicates that the JEPDMEP.ini file contained in the W121 LSAP is missing
ARO or invalid.

ARO B. Possible Causes

- ARO (1) Misconfiguration
- ARO (2) Software

ARO C. Initial Evaluation

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation
ARO Procedure that follows.

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ARO **D. Fault Isolation Procedure**

- ARO (1) Download the dfim.log and smf.log files.
- ARO (2) Refer the fault along with the log files to your EFB Administrator.

ARO ——— **END OF TASK** ———

ARO **884. DDM: CONNECTION REJECTED - Fault Isolation**

ARO **A. Description**

- ARO (1) This fault message indicates that DMEP/ failed to communicate with the DDM server because
- ARO of a firewall issue.

ARO **B. Possible Causes**

- ARO (1) Software

ARO **C. Initial Evaluation**

- ARO (1) Restart the EFB.
- ARO (a) Push the MENU bezel key.
- ARO (b) Push the SYSTEM PAGE button.
- ARO (2) Go to the EFB MAINTENANCE fault log page and see if the fault shows again.
- ARO (a) If the fault does not show with a new date and time stamp, then you corrected the fault.
- ARO (b) If the fault shows with a new date and time stamp, then continue with the Fault Isolation
- ARO Procedure that follows.

ARO **D. Fault Isolation Procedure**

- ARO (1) Download the dfim.log and smf.log files.
- ARO (2) Refer the fault along with the log files to your EFB Administrator.

ARO ——— **END OF TASK** ———

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