Attachment 8
Ice and Rain Protection
Flight Logs

DATE 2-11-01

COLGAN AIR

T	FLT #	CITY PAIR FROM	CITY PAIR TO	FLIGHT TIMES OUT	FLIGHT TIMES OFF	FLIGHT TIMES ON	FLIGHT TIMES IN	TOTALS FLT	TOTALS BLK	LND	STARTS LT	STARTS RT	CAP ID	FO ID	FA ID	CAPTAIN'S SIGNATURE
1	3441	YUL	EWR	0630	0649	0755	0802	66	92	1	1	1	5023	8235	8422 8444	[redacted]
1	3290	EWR	PWM	0854	0922	1017	1019	55	85	1	1	1	5023	8235	8422 8444	
1	3893	PWM	EWR	1102	1118	1247	1253	89	111	1	1	1	5023	8835	8422 8444	
1	3420	EWR	PVD	1443	1500	1534	1537	34	54	1	1	1	5156	7546	8423 8395	
1	3421	PVD	EWR	1803	1905	2004	2010	59	127	1	1	1	4262	8348	[illegible]	
1	3203	EWR	ALB	2050	2134	2205	2210	31	80	1	1	1	4262	8348	8660 8664	

TOTAL ENGINE STARTS 6 6

A/C NUMBER	N200WQ
PREV HOURS	~~1811.2~~ 1825.3
THIS LOG	5.6
TOTAL	~~1816.8~~ 1830.9
HOBBS IN	
HOBBS OUT	
TOTAL	
PREV LANDINGS	1800
THIS LOG	6
TOTAL LANDINGS	1806

Corrections [initials]

ENGINE DATA (CRUISE CONFIG)

	LEFT	RIGHT
FLT.#		
ITT	24 HR CHECKS COMPLETE	
TORQUE		
NP		
NG		
FUEL FLOW		
OIL PRESSURE		
OIL TEMP		
OAT		
PRESS. ALT.		
IAS		

DISCREPANCY	SIGNATURE	CORRECTIVE ACTION TAKEN	MECH

AIRWORTHINESS RELEASE

CERTIFICATE NUMBER DATE

VOR LOC. - ERROR -

SIG. - DATE -

OIL
LEFT ___ QTS. RIGHT ___ QTS.
TIME ___________
REMARKS:

FLIGHT TYPE 1-SCHEDULE 2-REPOSITION 3-TRAINING 4-CHARTER 5-COMPANY BUSINESS 6-SPECIAL FLIGHT PERMIT

NO. 176079

CA-1

COLGAN AIR

DATE ______

T	FLT #	CITY PAIR FROM	CITY PAIR TO	FLIGHT TIMES OUT	FLIGHT TIMES OFF	FLIGHT TIMES ON	FLIGHT TIMES IN	TOTALS FLT	TOTALS BLK	LND	STARTS LT	STARTS RT	CAP ID	FO ID	FA ID	CAPTAIN'S SIGNATURE
								TOTAL ENGINE STARTS								

Maintenance use only
Sam 3044

A/C NUMBER	N200WQ
PREV HOURS	1816.8 1830.9
THIS LOG	
TOTAL	
HOBBS IN	
HOBBS OUT	
TOTAL	
PREV LANDINGS	1806
THIS LOG	
TOTAL LANDINGS	

ENGINE DATA (CRUISE CONFIG)		
FLT.#	LEFT	RIGHT
ITT		
TORQUE		
NP		
NG		
FUEL FLOW		
OIL PRESSURE		
OIL TEMP		
OAT		
PRESS. ALT.		
IAS		

DISCREPANCY	SIGNATURE	CORRECTIVE ACTION TAKEN	MECH
(1P) During #1 Engine start #1 DC BUS illuminated and associated lights. #1 Engine is a hung start @ approx 15.9% 0437972	[redacted]	(1M) Complied with L1 inspection IAW Colgan workcard 05-000-011 [redacted] 2-12-09 ALB (3M) Complied with L2 inspection IAW Colgan workcard 05-000-012 [redacted] 2-12-09 ALB	
(2M) Line 1 check due 0437883	[redacted]	(1M) Replaced #2 DC GLU P/N 1152108-4 S/N off 01014 S/N on 00964 IAW AMM 24-31-00, ops check ok 2/12/09 [redacted]	
(3M) Line 2 check due 0437884			

AIRWORTHINESS RELEASE

CERTIFICATE NUMBER DATE

VOR LOC. - ERROR -

SIG. - DATE -

OIL
LEFT 1.5 QTS. RIGHT 3 QTS.
TIME 12-00
[redacted] 02/12/09 [redacted]

FLIGHT TYPE 1-SCHEDULE 2-REPOSITION 3-TRAINING 4-CHARTER 5-COMPANY BUSINESS 6-SPECIAL FLIGHT PERMIT

NO. 176080

CA-1

COLGAN AIR

DATE 2-12-09

T	FLT #	CITY PAIR FROM	CITY PAIR TO	FLIGHT TIMES OUT	FLIGHT TIMES OFF	FLIGHT TIMES ON	FLIGHT TIMES IN	TOTALS FLT	TOTALS BLK	LND	STARTS LT	STARTS RT	CAP ID	FO ID	FA ID	CAPTAIN'S SIGNATURE
								Maint Only								
								NO SWR								
								TOTAL ENGINE STARTS								

A/C NUMBER	
PREV HOURS	1816.8
THIS LOG	
TOTAL	
HOBBS IN	
HOBBS OUT	
TOTAL	
PREV LANDINGS	1806
THIS LOG	
TOTAL LANDINGS	

ENGINE DATA (CRUISE CONFIG)

	LEFT	RIGHT
FLT #		
ITT		
TORQUE		
NP		
NG		
FUEL FLOW		
OIL PRESSURE		
OIL TEMP		
OAT		
PRESS. ALT.		
IAS		

DISCREPANCY	SIGNATURE	CORRECTIVE ACTION TAKEN	MECH
4/M Comply with MODSUM 4-90488 Rework of APU QAD Housing Oil Drain. 04317352	[redacted]	4/M Complied with MODSUM 4-90148 IAW TO 400-49-08001 2/12/09 [redacted]	

AIRWORTHINESS RELEASE

CERTIFICATE NUMBER DATE

VOR LOC. - ERROR -

SIG. - DATE -

OIL
LEFT ___ QTS. RIGHT ___ QTS.
TIME ___________
REMARKS:

FLIGHT TYPE 1-SCHEDULE 2-REPOSITION 3-TRAINING 4-CHARTER 5-COMPANY BUSINESS 6-SPECIAL FLIGHT PERMIT

NO. 176081

CA-1

COLGAN AIR

DATE 12 Feb 09

T	FLT #	CITY PAIR FROM	TO	FLIGHT TIMES OUT	OFF	ON	IN	TOTALS FLT	BLK	LND	STARTS LT	RT	CAP ID	FO ID	FA ID	CAPTAIN'S SIGNATURE
	9999	Rwn	UPC	HGR	–	–	–	–	–	–	1	1	2215	7327	7210 8400	[redacted]
2	8888	HGR	C-1	0613	–	–	0628	–	15	–	–	–	2215	7327	7210 8400	
1	3200	ALB	EWR	0650	0704	0823	0827	79	97	1	1	1	2215	7327	7210 8400	

TOTAL ENGINE STARTS

A/C NUMBER	200WQ
PREV HOURS	1816.8
THIS LOG	1.3
TOTAL	1818.2
HOBBS IN	
HOBBS OUT	
TOTAL	
PREV LANDINGS	1806
THIS LOG	1
TOTAL LANDINGS	1807

ENGINE DATA (CRUISE CONFIG)

FLT.#	LEFT	RIGHT
ITT		
TORQUE	Ice	Test
NP	Comp	lete
NG		
FUEL FLOW		
OIL PRESSURE		
OIL TEMP		
OAT		
PRESS. ALT.		
IAS		

DISCREPANCY	SIGNATURE	CORRECTIVE ACTION TAKEN	MECH
(1M) Working MEL 24-40-1. ID# 34608 CAT D. APU GEN Came off line	[redacted]	(1M) R+R K26 Contactor IAW 8400 AMM 24-31-31. P/N ON-OFF 1096224-2. S/N ON 8919 - S/N-OFF 7255. ops check ok. ~~tfk~~ EIEA? This cleared MEL 24-40-1. ID# 34608 CAT D [redacted] EWR 12 Feb 09	

AIRWORTHINESS RELEASE

[redacted]

CERTIFICATE NUMBER [redacted] DATE 2-12-09

VOR LOC. - ERROR -

SIG. - DATE -

OIL
LEFT ___ QTS. RIGHT ___ QTS.
TIME ________
REMARKS:

FLIGHT TYPE 1-SCHEDULE 2-REPOSITION 3-TRAINING 4-CHARTER 5-COMPANY BUSINESS 6-SPECIAL FLIGHT PERMIT

NO. 176082

CA-1

COLGAN AIR

DATE 12 Feb 09

T	FLT #	CITY PAIR FROM	CITY PAIR TO	FLIGHT TIMES OUT	FLIGHT TIMES OFF	FLIGHT TIMES ON	FLIGHT TIMES IN	TOTALS FLT	TOTALS BLK	LND	STARTS LT	STARTS RT	CAP ID	FO ID	FA ID	CAPTAIN'S SIGNATURE
1	3201	EWR	ALB	1153	1423	1503	1505	40	192	1	1	1	2215	7327	7210 8400	[redacted]
TOTAL ENGINE STARTS																

A/C NUMBER	N200WQ
PREV HOURS	1818.1
THIS LOG	
TOTAL	
HOBBS IN	
HOBBS OUT	
TOTAL	
PREV LANDINGS	1807
THIS LOG	
TOTAL LANDINGS	

ENGINE DATA (CRUISE CONFIG)

FLT.#	LEFT	RIGHT
ITT		
TORQUE		
NP		
NG		
FUEL FLOW		
OIL PRESSURE		
OIL TEMP		
OAT		
PRESS. ALT.		
IAS		

DISCREPANCY	SIGNATURE	CORRECTIVE ACTION TAKEN	MECH
(1P) Ice Detect Fail Annunciator Illuminated in flight W0# 0438110	[redacted]	(IM) REMOVED AND REPLACED R/H IDP IAW BOMBARDIER Q400 AMM TASK 30-80-01-000-801. P/N OFF/ON 4100S019-07; S/N OFF AC 30218; S/N ON AC 78547. OPS CHECK OF THE ICE-DETECTION SYSTEM SATISFACTORY IAW Q400 TASK 30-80-00-710-801 AT THIS TIME. [redacted] MS 2/12/09	

AIRWORTHINESS RELEASE

CERTIFICATE NUMBER DATE

VOR LOC. - ERROR -

SIG. - DATE -

OIL

LEFT ____QTS. RIGHT____QTS.

TIME_____

REMARKS:

FLIGHT TYPE 1-SCHEDULE 2-REPOSITION 3-TRAINING 4-CHARTER 5-COMPANY BUSINESS 6-SPECIAL FLIGHT PERMIT

NO. 176083

CA-1

**** ON A/C ALL**

TASK 30-80-00-810-801
ICE DETECT FAIL (Caution) - Fault Isolation

1. General

A. This Fault Isolation procedure is for when the caution and warning panel (CAWP) ICE DETECT FAIL caution light comes on.

B. The CAWP ICE DETECT FAIL caution light comes on when the two ice detector probes have failed.

C. The engine display (ED) and the MFD ENGINE system page ICE DETECTED message can incorrectly not come into view.

D. The central diagnostic system (CDS) can show the related messages that follow:

- L ICE DETECTOR FAIL
- R ICE DETECTOR FAIL.

2. Job Set-Up Information

Subtask 30-80-00-946-003

A. Reference Information

REFERENCE	DESIGNATION
WM 30-80-00-1	Ice Detection System
WM 30-80-00-1A	Ice Detection System
AMM TASK 30-80-00-710-801	Operational Test of the Ice Detector System
FIM TASK 30-80-00-810-802	L ICE DETECTOR FAIL (Status) - Fault Isolation
FIM TASK 30-80-00-810-803	R ICE DETECTOR FAIL (Status) - Fault Isolation
AMM TASK 31-51-01-000-801	Removal of the Caution and Warning Panel
AMM TASK 31-51-01-400-801	Installation of the Caution and Warning Panel
AMM TASK 45-00-30-742-802	Retrieval of Data from the Central Diagnostic System - Ice Protection System (ICE PROTECTION)
AMM TASK 45-00-30-743-802	Erase the Data from the Central Diagnostic System - Ice Protection System (ICE PROTECTION)

3. Fault Confirmation

Subtask 30-80-00-810-001

A. Confirm the fault as follows:

(1) Do the CDS fault indication retrieval (Refer to AMM TASK 45-00-30-742-802).

(2) Erase the data from the CDS (Refer to AMM TASK 45-00-30-743-802).

(3) Do the operational test of the ice detector system (Refer to AMM TASK 30-80-00-710-801).

(a) If the ICE DETECT FAIL caution light does not come on, no maintenance procedure is necessary. Do the Close Out.

(b) If the ICE DETECT FAIL caution light does come on, do the CDS fault indication retrieval again (Refer to AMM TASK 45-00-30-742-802). Do the Fault Isolation.

4. Fault Isolation

Subtask 30-80-00-810-002

A. Isolate the fault as follows:

(1) If the message is L ICE DETECTOR FAIL, do the Fault Isolation for L ICE DETECTOR FAIL (Refer to FIM TASK 30-80-00-810-802). Do the Close Out.

(2) If the message is R ICE DETECTOR FAIL, do the Fault Isolation for R ICE DETECTOR FAIL (Refer to FIM TASK 30-80-00-810-803). Do the Close Out.

(3) If the fault continues, do a test of the wiring between the left ice detector probe (LIDP) and the CAWP (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P33 (LIDP)	3312-P3 (CAWP)
4	2

(4) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(5) If the fault continues, do a test of the wiring between the LIDP and the 115 VAC variable frequency panel (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P33 (LIDP)	(115 VAC Variable Frequency Panel)
1	LEFT ICE DET (Phase A Left Bus)

(6) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(7) If the fault continues, do a test of the wiring between the LIDP and the timer and monitor unit (TMU) (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P33 (LIDP)	3000-P3 (TMU)
4	V-

(8) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(9) If the fault continues, do a test of the wiring between the right ice detection probe (RIDP) and the CAWP (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P34 (RIDP)	3312-P3 (CAWP)
4	1

(10) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(11) If the fault continues, do a test of the wiring between the RIDP and the 115 VAC variable frequency panel (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P34 (LIDP)	**(115 VAC Variable Frequency Panel)**
1	RIGHT ICE DET (Phase A Right Bus)

(12) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(13) If the fault continues, do a test of the wiring between the RIDP and the TMU (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P34 (RIDP)	**3000-P3 (TMU)**
4	EE

(14) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(15) If the fault continues, replace the CAWP (Refer to AMM TASK 31-51-01-00-801 and AMM TASK 31-51-01-00-801). Do the Close Out.

5. Close Out

Subtask 30-80-00-941-001

A. Make sure that the CAWP ICE DETECT FAIL caution light is not on.

B. Remove all tools, equipment, and unwanted materials from the work area.

**** ON A/C ALL**

TASK 30-80-00-810-803
R ICE DETECTOR FAIL (Status) - Fault Isolation

1. General

A. This fault isolation procedure is for when the Central Diagnostic System (CDS) shows the R ICE DETECTOR FAIL message.

B. The CDS shows this message when the right Ice Detector Probe (IDP) has failed.

C. The Caution And Warning Panel (CAWP) ICE DETECT FAIL caution light can come on.

D. The Engine Display (ED) and the MFD ENGINE system page ICE DETECTED message can incorrectly not come into view.

E. The ED can show the ICE DETECTED message for less than 60±5 seconds.

2. Job Set-Up Information

Subtask 30-80-00-946-023

A. Reference Information

REFERENCE	DESIGNATION
AMM TASK 30-80-01-000-801	Removal of the Ice Detector Probe
AMM TASK 30-80-01-400-801	Installation of the Ice Detector Probe
AMM TASK 51-80-00-760-805	Bonding Check of the Ice Detector Probe (IDP)
FIM TASK 30-80-00-810-801	ICE DETECT FAIL (Caution) - Fault Isolation
FIM TASK 30-80-00-810-806	Intermittent Display of ICE DETECTED Advisory Message (ED) - Fault Isolation
WM 30-80-00-1	Ice Detection System
WM 30-80-00-1A	Ice Detection System

3. Fault Confirmation

Subtask 30-80-00-810-005

A. Confirm the fault as follows:

(1) If the CAWP ICE DETECT FAIL caution light is on, you must do the fault isolation for ICE DETECT FAIL caution light on (Refer to FIM TASK 30-80-00-810-801) before you do this fault isolation procedure.

(2) If the ICE DETECTED advisory message is displayed on the ED for less than 60±5 seconds, you must do the Fault Isolation for intermittent display of the ICE DETECTED advisory message (Refer to FIM TASK 30-80-00-810-806) before you do this Fault Isolation procedure.

4. Fault Isolation

Subtask 30-80-00-810-006

A. Isolate the fault as follows:

(1) Do a bonding check of the right IDP (Refer to AMM TASK 51-80-00-760-805). Do the Close Out.

(2) If the fault continues, do a test of the right IDP with an IDP test box (Refer to AERAZUR ACMM 30-80-00).

NOTE: To get the test box, contact the IDP test box vendor AERAZUR. The test of the IDP with the IDP test box prevents No Fault Found (NFF) IDP removal.

(3) If the right IDP test fails, remove and replace the right IDP (Refer to AMM TASK 30-80-01-000-801 and AMM TASK 30-80-01-400-801). Do the Close Out.

(4) If No Fault Found (NFF) in the right IDP test, do a test of the wiring between the right IDP and the 115 VAC variable frequency panel (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P34 (Right IDP)	(115 VAC variable frequency panel)
1	RIGHT ICE DET (Phase A Right Bus)

(5) If the wiring is unserviceable, repair the wiring. Do the Close Out.

(6) If the fault continues, do a test of the wiring between the right IDP and the Timer and Monitor Unit (TMU) (Refer to WM 30-80-00-1 or WM 30-80-00-1A):

3000-P34 (Right IDP)	3000-P3 (TMU)
4	EE

(7) If the wiring is unserviceable, repair the wiring. Do the Close Out.

5. Close Out

Subtask 30-80-00-941-005

A. Make sure that the CDS does not show the R ICE DETECTOR FAIL message.

B. Make sure that ED does not show the ICE DETECTED message for less than 60±5 seconds.

C. Remove all tools, equipment, and unwanted materials from the work area.

ON A/C ALL
TASK 30-80-01-000-801
Removal of the Ice Detector Probe

1. **General**

A. The maintenance procedure that follows is for the removal of the two Ice Detector Probes (written as the "IDP" in these procedures). The IDP are installed in the nose fuselage. These procedures are applicable to the right side system and the left side system. The procedures for the left side system are given. Differences for the right system are identified.

2. **Job Set-Up Information**

Subtask 30-80-01-944-002

A. Consumable Materials

(1) 08-14 Solvent - Isopropanol (Isopropyl alcohol)

(2) 14-02 Wiper cloth - white cotton (lint-free)

(3) Commercially available Sponge

(4) Commercially available Rubber gloves

Subtask 30-80-01-946-001

B. Reference Information

REFERENCE	DESIGNATION
AMM24-00-00-861-802	De-energize the Electrical System
AMM24-00-00-910-801	Electrical/Electronic Safety Precautions
AMM24-00-00-910-802	Electrostatic Discharge Safety Precautions

3. **Job Set-Up**

Subtask 30-80-01-910-001

A. Obey all the electrical/electronic safety precautions (Refer to AMM24-00-00-910-801).

B. Obey all the electrostatic discharge safety precautions (Refer to AMM24-00-00-910-802).

Subtask 30-80-01-861-001

WARNING: REMOVE ALL ELECTRICAL POWER FROM THE AIRCRAFT BEFORE YOU DO MAINTENANCE. PUT WARNING PLACARDS AT THE EXTERNAL POWER RECEPTACLE AND IN THE FLIGHT COMPARTMENT. THIS IS NECESSARY TO PREVENT ELECTRICAL SHOCKS TO PERSONS AND DAMAGE TO THE EQUIPMENT.

C. De-energize the electrical system (refer to AMM24-00-00-861-802).

Subtask 30-80-01-865-001

D. Open and tag the circuit breakers that follow:

CB PANEL AND CB NO	NAME
115V AC VARIABLE FREQUENCY, N	L ICE DET

115V AC VARIABLE FREQUENCY, N	R ICE DET

Subtask 30-80-01-010-001

E. Remove the following access panels as required.

REFERENCE	DESIGNATION
121AL	Access panel
122AR	Access panel

Subtask 30-80-01-160-001

CAUTION: DO NOT USE METAL SCRAPER OR OTHER SHARP TOOLS TO REMOVE SEALANT AND RELEASE AGENT FROM THE ICE DETECTOR PROBE, MOUNTING FLANGE AND AIRCRAFT STRUCTURE. USE ONLY A NYLON OR TEFLON SCRAPER TO REMOVE SEALANT AND PARTING AGENT. METAL SCRAPER AND OTHER SHARP TOOLS CAN CAUSE DAMAGE TO THE AIRCRAFT STRUCTURE, MOUNTING FLANGE AND ICE DETECTOR PROBES.

CAUTION: YOU MUST KEEP THE SOLVENTS AWAY FROM OPEN FLAMES AND SOURCES OF IGNITION. IF YOU DO NOT DO THIS, YOU CAN CAUSE A FIRE.

F. Remove the sealant around the IDP.

NOTE: If necessary, lightly apply isopropyl solvent with a sponge to the sealant. Allow the isopropyl solvent approximately 5 minutes to soften the sealant.

G. Do not allow the excess isopropyl solvent to drip down the side of the fuselage. Remove excess solvent with a lint free cloth.

NOTE: Dispose of contaminated solvent and lint free cloths according to your local government health and safety regulations.

4. Procedure

Subtask 30-80-01-020-001

Figure 401

A. Remove the IDP (2) as follows:

(1) Unscrew the six screws (3).

(2) Extract the IDP (2).

(3) Disconnect the electrical connector (5).

(4) Install protective cover on each connector.

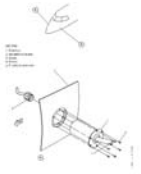
NOTE: Make sure to protect the sensor (4) in order to avoid any contact and mechanical shock.

CAUTION: DO NOT USE METAL SCRAPER OR OTHER SHARP TOOLS TO REMOVE SEALANT AND RELEASE AGENT FROM THE ICE DETECTOR PROBE, MOUNTING FLANGE AND AIRCRAFT STRUCTURE. USE ONLY A NYLON OR TEFLON SCRAPER TO REMOVE SEALANT AND PARTING AGENT. METAL SCRAPER AND OTHER SHARP TOOLS CAN CAUSE DAMAGE TO THE AIRCRAFT

STRUCTURE, MOUNTING FLANGE AND ICE DETECTOR PROBES.

(5) Clean the aircraft structure and IDP flange of any sealant and release agent.

Figure 401 - Removal / Installation of the Ice Detector Probe
Sheet 2 of 1



ON A/C ALL
TASK 30-80-01-400-801
Installation of the Ice Detector Probe

1. **General**

A. The maintenance procedure that follows is for the installation of the Ice Detector Probe (written as the "IDP" in these procedures). There is a left and a right IDP installed in the forward fuselage. These procedures are applicable to the left side and the right side. The procedure for the left side is given. Differences for the right side are identified.

2. **Job Set-Up Information**

Subtask 30-80-01-944-001

A. Consumable Materials

(1) 06-02 Sealant, Pro-Seal 870 C80

(2) 08-14 Solvent - Isopropanol (Isopropyl alcohol)

(3) 14-02 Wiper cloth - white cotton (lint free)

Subtask 30-80-01-946-002

B. Reference Information

REFERENCE	DESIGNATION
AMM30-80-00-710-801	Operational Test of the Ice Detection System
AMM51-23-00-390-801	General Sealing Practices
AMM51-25-26-370-801	Application of F19 Epoxy Polyamide Primer
AMM51-25-31-370-801	Application of Aircraft Paint
AMM51-25-56-390-801	Application of Release Agent #13
AMM51-80-00-760-805	Bonding Check of the Ice Detector Probe

3. **Job Set-Up**

Subtask 30-80-01-860-002

A. Make sure that the aircraft is in the same configuration as in the removal task.

4. **Procedure**

Subtask 30-80-01-420-001

Figure 402

A. Install the IDP (2) as follows:

(1) Make sure the aircraft mounting structure and rear face of the IDP flange are clean and free of sealant.

(2) Make sure that the aircraft mounting structure screw holes and IDP flange are clean with no corrosion, grease or preservation fluids.

(3) Use a suitable brush and carefully apply parting agent to the aircraft mounting structure and rear face of the IDP flange (Refer to AMM51-25-56-390-801).

(4) Fay surface seal the aircraft mounting structure with sealant (Refer to AMM51-23-00-390-801).

(5) Remove the protection from the sensor (4).

(6) Remove the protective cover from the electrical connector (5).

(7) Carefully, install the IDP (2) to the fuselage (1).

(8) Use the six holes to align the IDP (2) with the fuselage (1).

CAUTION: MAKE SURE THAT THE AIRCRAFT MOUNTING STRUCTURE AND ICE DETECTION PROBE FLANGE SCREW HOLES ARE FREE OF PARTING AGENT AND SEALANT.

(9) Secure the IDP with the six screws (3).

(10) Do a bonding test of the IDP (Refer to TASK AMM51-80-00-760-805).

NOTE: The electrical bonding check is done through the IDP attachment screws.
If an exposed area of the attachment screw is not available, carefully remove a section of the primer and paint from the attachment screw.

(11) If the protective coating has been removed from the attachment screw to accomplish the electrical bonding check, solvent clean the affected area and touch up the area with F19 primer and paint as necessary (Refer to AMM51-25-26-370-801 and AMM51-25-31-370-801).

(12) Connect the electrical connector (5) to the IDP (2).

5. Close Out

Subtask 30-80-01-410-001

A. Install the following access panels as necessary.

REFERENCE	DESIGNATION
121AL	Access panel
122AR	Access panel

Subtask 30-80-01-865-002

B. Remove the tags and close the circuit breakers that follow:

CB PANEL AND CB NO	NAME
115V AC VARIABLE FREQUENCY, N	L ICE DET
115V AC VARIABLE FREQUENCY, N	R ICE DET

Subtask 30-80-01-710-001

C. Do an operational test of the Ice Detection System (Refer to AMM30-80-00-710-801).

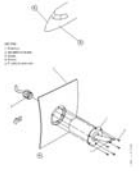
Subtask 30-80-01-390-002

D. Apply a butt joint seal around the IDP flange and the fuselage structure with sealant. (Refer to AMM51-23-00-390-801).

Subtask 30-80-01-941-001

E. Remove all tools, equipment, and unwanted materials from the work area.

Figure 402 - Removal / Installation of the Ice Detector Probe
Sheet 2 of 1



ON A/C ALL
TASK 30-80-00-710-801
Operational Test of the Ice Detection System

1. **General**
   A. The maintenance procedure that follows gives the instructions necessary to do an operational test of the ice detection system.

2. **Job Set-Up Information**
   Subtask 30-80-00-946-021
   A. Reference Information

REFERENCE	DESIGNATION
AMM24-00-00-861-801	Energize the Electrical System
AMM24-00-00-861-802	De-energize the Electrical System
AMM24-00-00-910-801	Electrical/Electronic Safety Precautions
AMM24-00-00-910-802	Electrostatic Discharge Safety Precautions
AMM25-24-01-000-801	Removal of the Upper Wardrobe panel
AMM25-24-01-400-801	Installation of the Upper Wardrobe panel

3. **Job Set-Up**
   Subtask 30-80-00-910-021
   A. Obey all the electrical/electronic safety precautions (Refer to AMM24-00-00-910-801).

   Subtask 30-80-00-910-022
   B. Obey all the electrostatic discharge safety precautions (Refer to AMM24-00-00-910-802).

   Subtask 30-80-00-861-015
   C. Energize the electrical system (Refer to AMM24-00-00-861-801).

   Subtask 30-80-00-865-021
   D. Make sure that the circuit breakers that follow are closed :

CB PANEL AND CB NO	NAME
115V AC VARIABLE FREQUENCY	L ICE DET
115V AC VARIABLE FREQUENCY	L PH A
115V AC VARIABLE FREQUENCY	R ICE DET
115V AC VARIABLE FREQUENCY	R PH A

   Subtask 30-80-00-010-021
   E. Remove the the upper wardrobe panel (Refer to AMM25-24-01-000-801).

4. **Procedure**
   Subtask 30-80-00-710-021
   Figure 501

A. Do an operational test of the ice detection system as follows:

(1) Do the steps that follow:

(a) On the maintenance panel above the wardrobe, set the switches that follow:

1. The CDS GND MAIN switch to the ON position.
2. The rotary switch to the AFR DEICE position.

(b) On the ARCDU, set the switches that follow:

1. The rotary switch to the ON position.
2. On the maintenance panel, push the NVM RESET switch.
3. After 10 seconds, continue the test.
4. Push the MAINT switch to the ON position.

(c) On the CAUTION PANEL, make sure the ICE DETECT FAIL caution light stays off.

(2) Do a test of the left fault indication as follows:

(a) On the 115 VAC VARIABLE FREQUENCY panel, open the L ICE DET circuit breaker.

(b) On the CAUTION PANEL, make sure the ICE DETECT FAIL caution light stays off.

(c) Push the 2L and then the 2R side key to display the IRPS-MAINTENANCE page on the ARCDU.

(d) Make sure only the L ICE DETECTOR FAIL indication shows.

(e) On 115 VAC VARIABLE FREQUENCY panel, close the L ICE DET circuit breaker.

(f) On the CAUTION PANEL, make sure the ICE DETECT FAIL caution light stays off.

(g) On the ARCDU, set the MAIN MENU page.

(h) On the maintenance panel, push the NVM RESET switch.

(i) After 10 seconds, continue the test.

(3) Do a test of the right fault indication as follows:

(a) On 115 VAC VARIABLE FREQUENCY panel, open the R ICE DET circuit breaker.

(b) On the CAUTION PANEL, make sure the ICE DETECT FAIL caution light stays off.

(c) On the ARCDU, set the MAIN MENU page.

(d) ON the maintenance panel, push the NVM RESET switch.

(e) After 10 seconds, continue the test.

(f) Push the 2R and then the 2L side key to display the IRPS-MAINTENANCE page on the ARCDU.

(g) Make sure only the R ICE DETECTOR FAIL indication shows.

(4) Do a test of the left and right fault indications together as follows:

(a) On the 115 VAC VARIABLE FREQUENCY panel, open the L ICE DET circuit

breaker.

(b) On the CAUTION PANEL, make sure the ICE DETECT FAIL caution light comes ON.

(c) On the ARCDU, set the MAIN MENU page.

(d) On the maintenance panel, push the NVM RESET switch.

(e) After 10 seconds, continue the test.

(f) Push the 2L and then the 2R side key to display the IRPS-MAINTENANCE page on the ARCDU.

(g) Make sure the L ICE DETECTOR FAIL and R ICE DETECTOR FAIL indications show.

(5) Remove the fault indications as follows:

(a) On the 115 VAC VARIABLE FREQUENCY panel, close the two ICE DET circuit breakers.

(b) On the CAUTION PANEL, make sure the ICE DETECT FAIL caution light goes off.

(c) On the ARCDU, set the MAIN MENU page.

(d) On the maintenance panel, set the switches that follow:

1. Push the NVM RESET switch.
2. After 10 seconds, set the CDS GND MAIN switch to the OFF position.
3. The rotary switch to the OFF position.

5. Close Out

Subtask 30-80-00-861-014

A. De-energize the electrical system (Refer to AMM24-00-00-861-802).

Subtask 30-80-00-941-003

B. Remove all tools, equipment, and unwanted materials from the work area.

Subtask 30-80-00-410-021

C. Install the the upper wardrobe panel (Refer to AMM25-24-01-400-801).

Figure 501 - CDS Page Selection
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