



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-2139; Project Identifier MCAI-2023-00435-T]

RIN 2120-AA64

#### Airworthiness Directives; Bombardier, Inc., Airplanes

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain Bombardier, Inc., Model BD-700-2A12 airplanes. This proposed AD was prompted by reports from the supplier that some overheat detection sensing elements of the bleed air leak detection system were manufactured with insufficient salt fill, which can result in an inability to detect hot bleed air leaks. This proposed AD would require maintenance records verification, and if an affected part is installed, would prohibit the use of certain Master Minimum Equipment List (MMEL) items under certain conditions by requiring revising the operator's existing MEL. This proposed AD would also require testing the overheat detection sensing elements, marking each serviceable sensing element with a witness mark, and replacing each non-serviceable part with a serviceable part. This proposed AD would also prohibit the installation of affected parts under certain conditions. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.

- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2139; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The street address for Docket Operations is listed above.

*Material Incorporated by Reference:*

- For Bombardier service information identified in this NPRM, contact Bombardier Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval, Québec H4S 1Y9, Canada; telephone 514-855-2999; email: [ac.yul@aero.bombardier.com](mailto:ac.yul@aero.bombardier.com); website: [bombardier.com](https://www.bombardier.com).

- For Liebherr-Aerospace Toulouse SAS service information identified in this NPRM, contact Liebherr-Aerospace Toulouse SAS, 408, Avenue des Etats-Unis - B.P.52010, 31016 Toulouse Cedex, France; telephone +33 (0)5.61.35.28.28; fax +33 (0)5.61.35.29.29; email: [techpub.toulouse@liebherr.com](mailto:techpub.toulouse@liebherr.com); website: [www.liebherr.aero](https://www.liebherr.aero).

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

**FOR FURTHER INFORMATION CONTACT:** Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2023-2139; Project Identifier MCAI-2023-00435-T” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend the proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public

docket of this NPRM. Submissions containing CBI should be sent to Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516- 228-7300; email: 9-avs-nyaco-cos@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

## **Background**

Transport Canada, which is the aviation authority for Canada, has issued Transport Canada AD CF-2023-18, dated March 9, 2023 (Transport Canada AD CF-2023-18) (also referred to after this as the MCAI), to correct an unsafe condition on certain Bombardier, Inc., Model BD-700-2A12 airplanes. The MCAI states that Bombardier received reports from the supplier of the overheat detection sensing elements of a manufacturing quality escape. Some of the sensing elements of the bleed air leak detection system were manufactured with insufficient salt fill. This condition can result in an inability to detect hot bleed air leaks, which can cause damage to surrounding structures and systems and prevent continued safe flight and landing.

The FAA is proposing this AD to address the unsafe condition on these products. You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2139.

## **Related Service Information under 1 CFR Part 51**

The FAA reviewed Liebherr Service Bulletin CFD-F1958-26-01, dated May 6, 2022, which specifies part numbers for affected sensing elements.

The FAA reviewed Bombardier Service Bulletin 700-36-7503, dated December 23, 2022, which specifies procedures for testing each leak detection loop (LDL) sensing element installed on the airplane, marking each serviceable sensing element with a witness mark, and replacing each non-serviceable part with a serviceable part.

This service information is reasonably available because the interested parties

have access to it through their normal course of business or by the means identified in the ADDRESSES section.

### **FAA's Determination**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information described above. The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Proposed AD Requirements in this NPRM**

This proposed AD would require maintenance records verification. If an affected part is installed, this proposed AD would prohibit the use of certain MMEL items unless specific dispatch instructions are followed by revising the operator's existing MEL and accomplishing the actions specified in the service information already described. For certain airplanes, this proposed AD would also require testing each LDL sensing element installed on the airplane, marking each serviceable sensing element with a witness mark, and replacing each non-serviceable part with a serviceable part. This proposed AD would also prohibit the installation of affected parts under certain conditions.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect 19 airplanes of U.S. registry. The FAA estimates the following costs to comply with this proposed AD:

#### **Estimated costs for required actions**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Up to 214 work-hours X \$85 per hour = Up to \$18,190	\$0	Up to \$18,190	Up to \$345,610

The FAA has received no definitive data on which to base the cost estimates for the on-condition actions specified in this proposed AD. The FAA estimates it would take up to 1.5 hours to replace a sensing element.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Would not affect intrastate aviation in Alaska, and

(3) Would not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**Bombardier, Inc.:** Docket No. FAA-2023-2139; Project Identifier MCAI-2023-00435-T.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Bombardier, Inc., Model BD-700-2A12 airplanes, certificated in any category, having serial numbers 70005 and subsequent.

#### **(d) Subject**

Air Transport Association (ATA) of America Code: 36, Pneumatic.

**(e) Unsafe Condition**

This AD was prompted by reports that some overheat detection sensing elements of the bleed air leak detection system were manufactured with insufficient salt fill. The FAA is issuing this AD to address non-conforming sensing elements of the bleed air leak detection system. The unsafe condition, if not addressed, could result in an inability to detect hot bleed air leaks and consequent damage to surrounding structures and systems, which could prevent continued safe flight and landing.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Definitions**

For the purpose of this AD, the definitions specified in paragraphs (g)(1) and (2) of this AD apply.

(1) An affected part is a sensing element marked with a date code before A2105 and having an LTS/Kidde part number specified in Liebherr Service Bulletin CFD-F1958-26-01, dated May 6, 2022, unless that sensing element meets the criteria specified in paragraph (g)(1)(i) or (ii) of this AD.

(i) The sensing element has been tested as specified in Section 3 of the Accomplishment Instructions of Kidde Aerospace and Defense Service Bulletin CFD-26-1, Revision 6, dated February 28, 2022, or earlier revisions, and has been found to be serviceable; and the sensing element has been marked on one face of its connector hex nut and packaged as specified in Section 3.C. of the Accomplishment Instructions of Kidde Aerospace and Defense Service Bulletin CFD-26-1, Revision 6, dated February 28, 2022, or earlier revisions.

(ii) The sensing element has been tested and found to be serviceable as specified in paragraph (j) of this AD; and the sensing element has been marked on one face of one connector hex nut with one green mark, as specified in Figure 33 of Bombardier Service

Bulletin 700-36-7503, dated December 23, 2022, as applicable (the figure is representative for all sensing elements).

(2) A serviceable part is a sensing element that is not an affected part.

**(h) Maintenance Records Verification**

For airplane serial numbers 70097 and subsequent whose airplane date of manufacture, as identified on the identification plate of the airplane, is on or before the effective date of this AD: Within 60 days after the effective date of this AD, examine the airplane maintenance records to verify whether any affected part has been installed since the airplane date of manufacture, as identified on the identification plate of the airplane.

(1) If the maintenance records confirms that an affected part has been installed, or if it cannot be confirmed that an affected part has not been installed, paragraphs (i) and (j) of this AD must be complied with within the compliance time specified in paragraphs (i) and (j) of this AD.

(2) If the maintenance records confirm that no affected parts have been installed since airplane date of manufacture, then paragraphs (i) and (j) of this AD are not applicable.

**(i) Minimum Equipment List (MEL) Revision**

For all airplanes: Within 90 days after the effective date of this AD, revise the operator’s existing MEL by incorporating the information specified in figures 1 through 7 to paragraph (i) of this AD, as applicable. This may be done by inserting a copy of this information into the operator’s existing MEL.

**Figure 1 to paragraph (i) – MMEL Item 21-0425**

MMEL Item 21-0425		
Crew Alerting System (CAS) Message	1. Repair Category	2. Dispatch Consideration

21 AIR COND / PRESS – TRIM LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed: <ul style="list-style-type: none"> <li>– 21 AIR COND / PRESS – IASC 1B INOP</li> <li>– 21 AIR COND / PRESS – IASC 2B INOP</li> <li>– 21 AIR COND / PRESS – IASC 1B FAULT</li> <li>– 21 AIR COND / PRESS – IASC 2B FAULT</li> </ul>
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## 1. OPERATIONS (O)

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

i. Connect external AC power, OR

ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.

2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.

3. On the APU control panel, turn the APU switch to START.

b. When external AC power is on or APU is running, wait a minimum of 6 minutes.

c. After 6 minutes, check for the 21 AIR COND / PRESS – TRIM LOOP ONE ELEMENT INOP info message as follows:

i. If the 21 AIR COND / PRESS – TRIM LOOP ONE ELEMENT INOP info message shows – DISPATCH IS PERMITTED.

Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.

ii. If the 21 AIR COND / PRESS – TRIM LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.

Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.

d. If required, remove external AC power from the airplane.

e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

- 21 AIR COND / PRESS – IASC 1B INOP info
- 21 AIR COND / PRESS – IASC 2B INOP info
- 21 AIR COND / PRESS – IASC 1B FAULT info
- 21 AIR COND / PRESS – IASC 2B FAULT info

**Figure 2 to paragraph (i) – MMEL Item 30-0055**

MMEL Item 30-0055

CAS Message	1. Repair Category	2. Dispatch Consideration
30 ICE PROT – L WING LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed: <ul style="list-style-type: none"> <li>- 21 AIR COND / PRESS – IASC 1B INOP</li> <li>- 21 AIR COND / PRESS – IASC 2B INOP</li> <li>- 21 AIR COND / PRESS – IASC 1B FAULT</li> <li>- 21 AIR COND / PRESS – IASC 2B FAULT</li> </ul>

1. OPERATIONS (O)

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

i. Connect external AC power, OR

ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.

2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.

3. On the APU control panel, turn the APU switch to START.

b. When external AC power is on or APU is running, wait a minimum of 6 minutes.

c. After 6 minutes, check for the 30 ICE PROT – L WING LOOP ONE ELEMENT INOP info message as follows:

i. If the 30 ICE PROT – L WING LOOP ONE ELEMENT INOP info message shows

- DISPATCH IS PERMITTED.

Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.

- ii. If the 30 ICE PROT – L WING LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.

Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.

- d. If required, remove external AC power from the airplane.
- e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

- 21 AIR COND / PRESS – IASC 1B INOP info
- 21 AIR COND / PRESS – IASC 2B INOP info
- 21 AIR COND / PRESS – IASC 1B FAULT info
- 21 AIR COND / PRESS – IASC 2B FAULT info

**Figure 3 to paragraph (i) – MMEL Item 30-0060**

MMEL Item 30-0060

CAS Message	1. Repair Category	2. Dispatch Consideration
30 ICE PROT – L WIPS LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed:  – 21 AIR COND / PRESS – IASC 1B INOP – 21 AIR COND / PRESS – IASC 2B INOP – 21 AIR COND / PRESS – IASC 1B FAULT – 21 AIR COND / PRESS – IASC 2B FAULT

1. OPERATIONS (O)

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

- a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

- i. Connect external AC power, OR

ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.
2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.
3. On the APU control panel, turn the APU switch to START.

b. When external AC power is on or APU is running, wait a minimum of 6 minutes.

c. After 6 minutes, check for the 30 ICE PROT – L WIPS LOOP ONE ELEMENT INOP info message as follows:

- i. If the 30 ICE PROT – L WIPS LOOP ONE ELEMENT INOP info message shows  
– DISPATCH IS PERMITTED.

Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.

- ii. If the 30 ICE PROT – L WIPS LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.

Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.

d. If required, remove external AC power from the airplane.

e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

- 21 AIR COND / PRESS – IASC 1B INOP info
- 21 AIR COND / PRESS – IASC 2B INOP info
- 21 AIR COND / PRESS – IASC 1B FAULT info
- 21 AIR COND / PRESS – IASC 2B FAULT info

**Figure 4 to paragraph (i) – MMEL Item 30-0090**

MMEL Item 30-0090		
CAS Message	1. Repair Category	2. Dispatch Consideration
30 ICE PROT – R WING LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed: – 21 AIR COND / PRESS – IASC 1B INOP

		- 21 AIR COND / PRESS – IASC 2B INOP - 21 AIR COND / PRESS – IASC 1B FAULT - 21 AIR COND / PRESS – IASC 2B FAULT
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## 1. OPERATIONS (O)

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

i. Connect external AC power, OR

ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.

2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.

3. On the APU control panel, turn the APU switch to START.

b. When external AC power is on or APU is running, wait a minimum of 6 minutes.

c. After 6 minutes, check for the 30 ICE PROT – R WING LOOP ONE ELEMENT INOP info message as follows:

i. If the 30 ICE PROT – R WING LOOP ONE ELEMENT INOP info message shows – DISPATCH IS PERMITTED.

Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.

ii. If the 30 ICE PROT – R WING LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.

Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.

d. If required, remove external AC power from the airplane.

e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

– 21 AIR COND / PRESS – IASC 1B INOP info

– 21 AIR COND / PRESS – IASC 2B INOP info

– 21 AIR COND / PRESS – IASC 1B FAULT info

– 21 AIR COND / PRESS – IASC 2B FAULT info

**Figure 5 to paragraph (i) – MMEL Item 30-0095**

MMEL Item 30-0095

CAS Message	1. Repair Category	2. Dispatch Consideration
30 ICE PROT – R WIPS LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed:  – 21 AIR COND / PRESS – IASC 1B INOP – 21 AIR COND / PRESS – IASC 2B INOP – 21 AIR COND / PRESS – IASC 1B FAULT – 21 AIR COND / PRESS – IASC 2B FAULT

**1. OPERATIONS (O)**

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

i. Connect external AC power, OR

ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.

2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.

3. On the APU control panel, turn the APU switch to START.

b. When external AC power is on or APU is running, wait a minimum of 6 minutes.

c. After 6 minutes, check for the 30 ICE PROT – R WIPS LOOP ONE ELEMENT INOP info message as follows:

i. If the 30 ICE PROT – R WIPS LOOP ONE ELEMENT INOP info message shows

– DISPATCH IS PERMITTED.

Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.

- ii. If the 30 ICE PROT – R WIPS LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.

Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.

- d. If required, remove external AC power from the airplane.
- e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

- 21 AIR COND / PRESS – IASC 1B INOP info
- 21 AIR COND / PRESS – IASC 2B INOP info
- 21 AIR COND / PRESS – IASC 1B FAULT info
- 21 AIR COND / PRESS – IASC 2B FAULT info

**Figure 6 to paragraph (i) – MMEL Item 36-0050**

MMEL Item 36-0050

CAS Message	1. Repair Category	2. Dispatch Consideration
36 BLEED – L BLEED LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed:  <ul style="list-style-type: none"> <li>– 21 AIR COND / PRESS – IASC 1B INOP</li> <li>– 21 AIR COND / PRESS – IASC 2B INOP</li> <li>– 21 AIR COND / PRESS – IASC 1B FAULT</li> <li>– 21 AIR COND / PRESS – IASC 2B FAULT</li> </ul>

1. OPERATIONS (O)

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

- a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

- i. Connect external AC power, OR
- ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.
  2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.
  3. On the APU control panel, turn the APU switch to START.
- b. When external AC power is on or APU is running, wait a minimum of 6 minutes.
- c. After 6 minutes, check for the 36 BLEED – L BLEED LOOP ONE ELEMENT INOP info message as follows:
- i. If the 36 BLEED – L BLEED LOOP ONE ELEMENT INOP info message shows – DISPATCH IS PERMITTED.
- Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.
- ii. If the 36 BLEED – L BLEED LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.
- Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.
- d. If required, remove external AC power from the airplane.
- e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

- 21 AIR COND / PRESS – IASC 1B INOP info
- 21 AIR COND / PRESS – IASC 2B INOP info
- 21 AIR COND / PRESS – IASC 1B FAULT info
- 21 AIR COND / PRESS – IASC 2B FAULT info

**Figure 7 to paragraph (i) – MMEL Item 36-0105**

MMEL Item 36-0105		
CAS Message	1. Repair Category	2. Dispatch Consideration
36 BLEED – R BLEED LOOP ONE ELEMENT INOP	C	(O) May be displayed provided none of the following messages are displayed:  <ul style="list-style-type: none"> <li>– 21 AIR COND / PRESS – IASC 1B INOP</li> <li>– 21 AIR COND / PRESS – IASC 2B INOP</li> <li>– 21 AIR COND / PRESS – IASC 1B FAULT</li> <li>– 21 AIR COND / PRESS – IASC 2B FAULT</li> </ul>

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## 1. OPERATIONS (O)

Before each flight:

(1) Make sure that the airplane is not powered on and that engines and APU are OFF.

a. Connect electrical power to the airplane as follows:

Note: Do not use a Jet Airstart Cart or High Pressure Ground Cart.

i. Connect external AC power, OR

ii. Start the APU as follows:

1. On the ELECTRICAL control panel, set the MAIN BATT and APU BATT switches to ON.

2. On the BLEED/AIR COND control panel, make sure that the APU BLEED switch is set to OFF.

3. On the APU control panel, turn the APU switch to START.

b. When external AC power is on or APU is running, wait a minimum of 6 minutes.

c. After 6 minutes, check for the 36 BLEED – R BLEED LOOP ONE ELEMENT INOP info message as follows:

i. If the 36 BLEED – R BLEED LOOP ONE ELEMENT INOP info message shows – DISPATCH IS PERMITTED.

Note: The INFO message confirms it is not heat related and therefore cannot be a potential leak in the presence of an affected part.

ii. If the 36 BLEED – R BLEED LOOP ONE ELEMENT INOP info message does not show – DISPATCH IS NOT PERMITTED.

Note: No INFO message confirms that it is heat related and therefore could be a potential leak in the presence of an affected part.

d. If required, remove external AC power from the airplane.

e. If required, set APU BLEED to AUTO.

(2) On the INFO synoptic page, make sure that the messages that follow do not show:

Note: Confirm the airplane has electrical power to activate the synoptic page.

– 21 AIR COND / PRESS – IASC 1B INOP info

– 21 AIR COND / PRESS – IASC 2B INOP info

– 21 AIR COND / PRESS – IASC 1B FAULT info

– 21 AIR COND / PRESS – IASC 2B FAULT info

## **(j) Testing and Replacement of Affected Overheat Detection Sensing Elements**

For airplane serial numbers 70005 and subsequent: Within 3,500 flight hours or 120 months, whichever occurs first, from the effective date of this AD, test the overheat detection sensing elements to determine if they are serviceable, in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700-36-7503, dated December 23, 2022.

(1) For each sensing element that is serviceable, before further flight, mark the sensing element with a witness mark in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700-36-7503, dated December 23, 2022.

(2) For each sensing element that is not serviceable, before further flight, replace the sensing element with a serviceable part in accordance with the Accomplishment Instructions of Bombardier Service Bulletin 700-36-7503, dated December 23, 2022.

## **(k) Parts Installation Prohibition**

As of the effective date of this AD, no person may install, on any airplane, any affected part unless it is a serviceable part.

## **(l) No Reporting Requirement**

Although Bombardier Service Bulletin 700-36-7503, dated December 23, 2022, specifies to submit certain information to the manufacturer, this AD does not include that requirement.

## **(m) Additional AD Provisions**

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation

Branch, mail it to ATTN: Program Manager, Continuing Operational Safety, at the address identified in paragraph (n)(2) of this AD or email to: 9-avs-nyaco-cos@faa.gov. If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or Transport Canada; or Bombardier, Inc.'s Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

**(n) Additional Information**

(1) Refer to Transport Canada AD CF-2023-18, dated March 9, 2023, for related information. This Transport Canada AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-2139.

(2) For more information about this AD, contact Steven Dzierzynski, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 516-228-7300; email: 9-avs-nyaco-cos@faa.gov.

**(o) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) Bombardier Service Bulletin 700-36-7503, dated December 23, 2022.

(ii) Liebherr Service Bulletin CFD-F1958-26-01, dated May 6, 2022.

(3) For Bombardier service information identified in this AD, contact Bombardier

Business Aircraft Customer Response Center, 400 Côte-Vertu Road West, Dorval,  
Québec H4S 1Y9, Canada; telephone 514-855-2999; email:  
ac.yul@aero.bombardier.com; website: bombardier.com.

(4) For Liebherr-Aerospace Toulouse SAS service information identified in this  
AD, contact Liebherr-Aerospace Toulouse SAS, 408, Avenue des Etats-Unis -  
B.P.52010, 31016 Toulouse Cedex, France; telephone +33 (0)5.61.35.28.28; fax +33  
(0)5.61.35.29.29; email: techpub.toulouse@liebherr.com; website: www.liebherr.aero.

(5) You may view this service information at the FAA, Airworthiness Products  
Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For  
information on the availability of this material at the FAA, call 206-231-3195.

(6) You may view this material at the National Archives and Records  
Administration (NARA). For information on the availability of this material at NARA,  
visit [www.archives.gov/federal-register/cfr/ibr-locations](http://www.archives.gov/federal-register/cfr/ibr-locations) or email  
[fr.inspection@nara.gov](mailto:fr.inspection@nara.gov).

Issued on October 26, 2023.

Caitlin Locke, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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