



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2023-1398; Project Identifier AD-2023-00472-P; Amendment 39-22525; AD 2023-16-06]

RIN 2120-AA64

#### Airworthiness Directives; Hamilton Sundstrand Corporation Propellers

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

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all Hamilton Sundstrand Corporation (Hamilton Sundstrand) Model 14SF-17 and 14SF-19 propellers. This AD was prompted by a report of an auxiliary motor and pump failing to feather a propeller in flight. This AD requires replacement of a certain auxiliary motor and pump. This AD also prohibits installation of a certain auxiliary motor and pump on any propeller. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **ADDRESSES:**

*AD Docket:* You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1398; 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 final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

#### *Material Incorporated by Reference:*

- For service information identified in this final rule, contact Hamilton

Sundstrand, One Hamilton Road, Windsor Locks, CT 06096; phone: (877) 808-7575; email: CRC@collins.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at regulations.gov under Docket No. FAA-2023-1398.

**FOR FURTHER INFORMATION CONTACT:** Isabel Saltzman, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (781) 238-7649; email: 9-AVS-AIR-BACO-COS@faa.gov.

#### **SUPPLEMENTARY INFORMATION:**

##### **Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Hamilton Sundstrand Model 14SF-17 and 14SF-19 propellers. The NPRM published in the *Federal Register* on June 27, 2023 (88 FR 41513). The NPRM was prompted by a report of an auxiliary motor and pump installed on a non-Hamilton Sundstrand propeller failing to feather the propeller in flight through either the primary or the backup means. The failure was caused by motor magnets in the auxiliary motor and pump that were de-bonded due to corrosion at the magnet and housing interface. The de-bonded motor magnets prevented motor rotation. Hamilton Sundstrand Model 14SF-17 and 14SF-19 propellers use the same auxiliary motor and pump. These propellers are installed on, but not limited to, Viking Air Limited (type certificate previously held by Bombardier Inc.; Canadair Limited) Model CL-215-6B11 (CL-215T & CL-415 Variants) airplanes. In the NPRM, the FAA proposed to require the removal from service of an auxiliary motor and pump having part number (P/N) 782655-3 (Aerocontrollex P/N 4122-006009) and replacement with an auxiliary motor and pump having P/N 782655-4 (Aerocontrollex P/N 4122-056000). In the NPRM, the FAA also proposed to prohibit installation of an auxiliary motor and pump having P/N 782655-3 (Aerocontrollex P/N 4122-006009) on any propeller. The FAA is issuing this AD to address the unsafe condition on these products.

##### **Discussion of Final Airworthiness Directive**

## Comments

The FAA received no comments on the NPRM or on the determination of the costs.

## Conclusion

The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, this AD is adopted as proposed in the NPRM.

## Related Service Information under 1 CFR Part 51

The FAA reviewed Hamilton Sundstrand Corporation Service Bulletin (SB) 14SF-61-168, Revision 1, dated December 21, 2016. This service information specifies instructions for replacing the auxiliary motor and pump. Hamilton Sundstrand Corporation is a UTC Aerospace Systems Company. This service information is identified as both Hamilton Sundstrand Corporation and UTC Aerospace Systems. 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.

## Costs of Compliance

The FAA estimates that this AD affects 20 propellers installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

### Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Replace auxiliary motor and pump	2 work-hours x \$85 per hour = \$170	\$11,000	\$11,170	\$223,400
Perform post-installation system test	1 work-hour x \$85 per hour = \$85	\$0	\$85	\$1,700

## **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**

This AD will not have federalism implications under Executive Order 13132. This AD will 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 that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will 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 Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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:

**2023-16-06 Hamilton Sundstrand Corporation:** Amendment 39-22525; Docket No. FAA-2023-1398; Project Identifier AD-2023-00472-P.

### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

None.

### **(c) Applicability**

This AD applies to Hamilton Sundstrand Corporation (Hamilton Sundstrand) Model 14SF-17 and 14SF-19 propellers.

Note 1 to paragraph (c): These propellers are known to be installed on, but not limited to, Viking Air Limited (type certificate previously held by Bombardier Inc.; Canadair Limited) Model CL-215-6B11 (CL-215T and CL-415 Variants) airplanes.

### **(d) Subject**

Joint Aircraft System Component (JASC) Code 6123, Propeller Feathering/Reversing.

### **(e) Unsafe Condition**

This AD was prompted by a report of an auxiliary motor and pump failing to feather a propeller in flight. The FAA is issuing this AD to prevent the failure of a certain auxiliary motor and pump to feather propellers. The unsafe condition, if not addressed, could result in reduced controllability of the aircraft and consequent loss of control of the aircraft.

### **(f) Compliance**

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

### **(g) Required Actions**

(1) Within 90 days after the effective date of this AD, remove from service an auxiliary motor and pump having part number (P/N) 782655-3 (Aerocontrollex P/N 4122-006009) and replace with an auxiliary motor and pump having P/N 782655-4

(Aerocontrolex P/N 4122-056000) in accordance with the Accomplishment Instructions, paragraphs 3.B., 3.C., and 3.E. of Hamilton Sundstrand Corporation Service Bulletin (SB) 14SF-61-168, Revision 1, dated December 21, 2016 (Hamilton Sundstrand SB 14SF-61-168, Revision 1).

(2) After replacement of the auxiliary motor and pump, perform a post-installation system test in accordance with the Accomplishment Instructions, paragraph 3.F. of Hamilton Sundstrand SB 14SF-61-168, Revision 1.

**(h) Installation Prohibition**

After the effective date of this AD, do not install an auxiliary motor and pump having P/N 782655-3 (Aerocontrolex P/N 4122-006009) on any propeller.

**(i) No Return of Parts**

Where the service information referenced in the Accomplishment Instructions, paragraph 3.B. of Hamilton Sundstrand SB 14SF-61-168, Revision 1, specifies returning certain parts to the manufacturer for modification, this AD does not include that requirement.

**(j) Credit for Previous Actions**

You may take credit for the actions required by paragraph (g) of this AD if you performed those actions before the effective date of this AD using Hamilton Sundstrand SB 14SF-61-168, Original Issue, dated December 14, 2016.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, East Certification 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 local Flight Standards District Office, as appropriate. If sending information directly to the manager of the branch office, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: 9-AVS-AIR-BACO-COS@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(l) Related Information**

(1) For more information about this AD, contact Isabel Saltzman, Aviation Safety Engineer, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (781) 238-7649; email: 9-AVS-AIR-BACO-COS@faa.gov.

(2) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (m)(3) and (4) of this AD.

**(m) 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 the AD specifies otherwise.

(i) Hamilton Sundstrand Corporation Service Bulletin 14SF-61-168, Revision 1, dated December 21, 2016.

Note 2 to paragraph (m)(2)(i): Hamilton Sundstrand Corporation is a UTC Aerospace Systems Company. This service information is identified as both Hamilton Sundstrand Corporation and UTC Aerospace Systems.

(ii) [Reserved]

(3) For service information identified in this AD, contact Hamilton Sundstrand, One Hamilton Road, Windsor Locks, CT 06096; phone: (877) 808-7575; email: CRC@collins.com.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

Issued on August 24, 2023.

Victor Wicklund, Deputy Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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