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[4910-13-P]

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

**[Docket No. FAA-2018-0167; Product Identifier 2017-NM-131-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; ATR – GIE Avions de Transport Régional Airplanes**

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

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

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all ATR – GIE Avions de Transport Régional Model ATR42 and Model ATR72 airplanes. This proposed AD was prompted by reports of cracking in main landing gear (MLG) universal joints (U-joints). This proposed AD would require repetitive detailed inspections of the affected U-joints for cracks, and replacement if necessary. This proposed AD would also provide an optional terminating action for the repetitive inspections. We are proposing this AD to address the unsafe condition on these products.

**DATES:** We 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 <http://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.

For service information identified in this NPRM, contact Safran Landing Systems, Inovel Parc Sud - 7, rue Général Valérie André, 78140 VELIZY-VILLACOUBLAY – FRANCE; phone: +33 (0) 1 46 29 81 00; Internet: [www.safran-landing-systems.com](http://www.safran-landing-systems.com). You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0167; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3220.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2018-0167; Product Identifier 2017-NM-131-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this NPRM. We will consider all comments received by the closing date and may amend this NPRM based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this NPRM.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2017-0172, dated September 7, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all ATR – GIE Avions de Transport Régional Model ATR42 and Model ATR72 airplanes. The MCAI states:

Occurrences were reported of finding cracked universal joints (U-joints) Part Number (P/N) D56805, P/N D56805-2, P/N D61036 and P/N D62050. Subsequent investigation identified a batch of affected U-joints which were subjected

to a possible non-detected thermal abuse done during the grinding process by the U-joint manufacturer in production, or by a maintenance organization during overhaul and/or repair.

This condition, if not detected and corrected, could lead to MLG structural failure and subsequent collapse of the MLG, possibly resulting in damage to the aeroplane and injury to the occupants.

To address this potential unsafe condition, SAFRAN Landing Systems (SLS), published Service Bulletin (SB) 631-32-249 for MLGs fitted on ATR42-200, ATR42-300 and ATR42-320; SB 631-32-250 for MLGs fitted on ATR42-400 and ATR42-500; and SB 631-32-251 for MLGs fitted on ATR72 (all models), to provide inspection instructions.

For the reasons described above, this [EASA] AD requires repetitive detailed visual inspections (DVI) of the affected U-joints for cracks, and, depending on findings, replacement with a serviceable part [and provides an optional terminating action].

You may examine the MCAI in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0167.

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

Safran Landing Systems has issued Service Bulletin 631-32-249, Revision 1, dated June 26, 2017; Service Bulletin 631-32-250, Revision 1, dated June 26, 2017; and Service Bulletin 631-32-251, Revision 1, dated June 26, 2017. The service information describes procedures for detailed inspections of the affected U-joints for cracking, and replacement if necessary. These documents are distinct since they apply to different airplane models. 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 and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

### **Costs of Compliance**

We estimate that this proposed AD affects 62 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

#### **Estimated costs**

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection	1 work-hour X \$85 per hour = \$85 per inspection cycle	\$0	\$85 per inspection cycle	\$5,270 per inspection cycle

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these replacements:

#### **On-condition costs**

Action	Labor cost	Parts cost	Cost per product
Replacement	8 work-hours X \$85 per hour = \$680	\$14,083	\$14,763

According to the manufacturer, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### **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.

We are 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.

This proposed AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes to the Director of the System Oversight Division.

## **Regulatory Findings**

We 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. Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. 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 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 (AD):

**ATR – GIE Avions de Transport Régional:** Docket No. FAA-2018-0167; Product Identifier 2017-NM-131-AD.

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

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

None.

### **(c) Applicability**

This AD applies to ATR – GIE Avions de Transport Régional Model ATR42-200, -300, -320, and -500 airplanes; and Model ATR72-101, -102, -201, -202, -211, -212, and -212A airplanes, certificated in any category, all manufacturer serial numbers.

### **(d) Subject**

Air Transport Association (ATA) of America Code 32, Landing gear.

### **(e) Reason**

This AD was prompted by reports of cracking in certain main landing gear (MLG) universal joints (U-joints). We are issuing this AD to detect and correct cracking in MLG U-joints, which could lead to MLG structural failure and subsequent collapse of the MLG, possibly resulting in damage to the airplane and injury to the occupants.

**(f) Compliance**

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

**(g) Definitions**

(1) For the purposes of this AD, an affected U-joint is any U-joint identified by part number (P/N) and serial number in the applicable service bulletin specified in paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this AD.

(i) For Model ATR42-200, -300, and -320 airplanes: Safran Landing Systems Service Bulletin 631-32-249, Revision 1, dated June 26, 2017.

(ii) For Model ATR42-500 airplanes: Safran Landing Systems Service Bulletin 631-32-250, Revision 1, dated June 26, 2017.

(iii) For Model ATR72-101, -102, -201, -202, -211, -212, and -212A airplanes: Safran Landing Systems Service Bulletin 631-32-251, Revision 1, dated June 26, 2017.

(2) For the purposes of this AD, a serviceable part is an affected U-joint, as defined in paragraph (g)(1) of this AD, released to service by Safran Landing Systems, free of defect, with the letter "V" added on the part (on the identification plate, or in the vicinity of the P/N marking); or a new (never installed) U-joint; or a U-joint repaired as specified in the applicable component maintenance manual (CMM) identified in paragraph (g)(2)(i), (g)(2)(ii), or (g)(2)(iii).

(i) For Model ATR42-200, -300, and -320 airplanes: Safran Landing Systems CMM 32-18-28, Rev. 10 or Safran Landing Systems CMM 32-18-30, Rev. 8, both dated June 2, 2017.

(ii) For Model ATR42-500 airplanes: Safran Landing Systems CMM 32-18-45, Rev. 5 or Safran Landing Systems CMM 32-18-63, Rev. 6, both dated June 2, 2017.

(iii) For Model ATR72-101, -102, -201, -202, -211, -212, and -212A airplanes: Safran Landing Systems CMM 32-18-34, Rev. 9, dated June 2, 2017.

**(h) Repetitive Inspections**

Within 3 months or 500 flight cycles (FC), whichever occurs first, after the effective date of this AD, and thereafter at intervals not to exceed 500 FC: Do a detailed inspection for damage or cracking of each affected U-joint, as identified in paragraph (g)(1) of this AD, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in paragraphs (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this AD.

**(i) Corrective Action**

If, during any inspection required by paragraph (h) of this AD, any damaged or cracked U-joint is found, before further flight: Replace the U-joint of the affected MLG with a serviceable part, as defined in paragraph (g)(2) of this AD, in accordance with the Accomplishment Instructions of the applicable service bulletin specified in paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this AD.

**(j) Terminating Action**

Replacement on an airplane of all affected U-joints, as identified in paragraph (g)(1) of this AD, with serviceable parts, as defined in paragraph (g)(2) of this AD, constitutes terminating action for the repetitive inspections required by paragraph (h) of this AD for that airplane.

**(k) Parts Installation Limitation**

As of the effective date of this AD, no person may install, on any airplane, an affected U-joint, as identified in paragraph (g)(1) of this AD, unless it is a serviceable part, as defined in paragraph (g)(2) of this AD.

**(l) No Reporting Requirement**

Although the Accomplishment Instructions of the service bulletins identified in paragraphs (g)(1)(i), (g)(1)(ii), and (g)(1)(iii) of this AD specify to submit certain information to the manufacturer, this AD does not include that requirement.

**(m) Other FAA AD Provisions**

The following provisions also apply to this AD:

**(1) Alternative Methods of Compliance (AMOCs):** The Manager, International Section, Transport Standards 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 International Section, send it to the attention of the person identified in paragraph (n)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

**(2) Contacting the Manufacturer:** For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or ATR – GIE Avions de Transport Régional's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

**(n) Related Information**

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA Airworthiness Directive 2017-0172, dated September 7, 2017, for related information. This MCAI may be found in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0167.
- (2) For more information about this AD, contact Shahram Daneshmandi, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3220.

(3) For service information identified in this AD, contact Safran Landing Systems, Inovel Parc Sud - 7, rue Général Valérie André, 78140 VELIZY-VILLACOUBLAY – FRANCE; phone: +33 (0) 1 46 29 81 00; Internet: [www.safran-landing-systems.com](http://www.safran-landing-systems.com). You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

Issued in Des Moines, Washington, on March 15, 2018.

Dionne Palermo,  
Acting Director,  
System Oversight Division,  
Aircraft Certification Service.

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