



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

[Docket No. FAA-2017-0826; Product Identifier 2016-SW-084-AD]

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters**

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

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

**SUMMARY:** We propose to supersede airworthiness directive (AD) 2015-22-53 for Airbus Helicopters (Airbus) Model AS350B3 helicopters. AD 2015-22-53 requires revising the rotorcraft flight manual (RFM) to perform the yaw load compensator check after rotor shut-down and to state that the yaw servo hydraulic switch must be in the “ON” position before taking off. Since we issued AD 2015-22-53, Airbus developed a modification of the ACCU TST switch. This proposed AD would retain the requirements of AD 2015-22-53 and require modifying the yaw servo hydraulic switch (collective switch) and replacing the ACCU TST button. The actions of this proposed AD are intended to address an unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <http://www.regulations.gov>. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

### **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-2017-0826; or in person at the Docket Operations Office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the European Aviation Safety Agency (EASA) AD, the economic 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 service information identified in this proposed rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at [http://www.helicopters.airbus.com/website/en/ref/Technical-Support\\_73.html](http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html). You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**FOR FURTHER INFORMATION CONTACT:** George Schwab, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101

Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email  
george.schwab@faa.gov.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

On November 13, 2015, we issued AD 2015-22-53, Amendment 39-18331 (80 FR 74982, December 1, 2015), which was sent previously as an emergency AD to all known U.S. owners and operators of Airbus Helicopters Model AS350B3 helicopters. AD 2015-22-53 requires revising the pre-flight and post-flight procedures in the RFM to

perform the yaw load compensator check (ACCU TST switch) after rotor shut-down instead of during preflight procedures and to state that the yaw servo hydraulic switch (collective switch) must be in the “ON” (forward) position before taking off. AD 2015-22-53 was prompted by two accidents and one incident of Model AS350B3 helicopters with a dual hydraulic system installed, and which also prompted EASA, which is the Technical Agent for the Member States of the European Union, to issue EASA AD No. 2015-0178, dated August 26, 2015. EASA advised these occurrences may have resulted from improperly performing the T/R hydraulic preflight check (a pilot forgetting to put the yaw servo hydraulic switch (collective switch) in the “ON” position or put the ACCU TST switch in the “OFF” position before flight)--and not from equipment failure.

According to EASA, these conditions significantly increase the control load necessary to generate sufficient tail rotor thrust for take-off.

#### **Actions Since AD 2015-22-53 Was Issued**

Since we issued AD 2015-22-53, Airbus Helicopters issued SB No. AS350-67.00.65, Revision 0, dated August 25, 2016, which specifies procedures to alter the ACCU TST switch. Subsequently, EASA issued AD No. 2016-0220, dated November 4, 2016. EASA advises that further analysis of the incidents resulted in the recognition that a pilot could forget to activate a switch despite the RFM changes and that the modifications developed by Airbus Helicopters are necessary. Accordingly, EASA AD No. 2016-0220 requires installing a caution indication to the pilot when the yaw servo hydraulic switch (collective switch) is in the “OFF” position, installing an additional indicator light on the caution and warning panel, and replacing the bistable push button

(push-on, push-off) ACCU TST switch with a monostable push button (push-on, timer-off) switch.

### **FAA's Determination**

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, EASA, its technical representative, has notified us of the unsafe condition described in its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

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

We reviewed Airbus Helicopters SB No. AS350-67.00.64, Revision 0, dated February 25, 2015, which specifies procedures to install a timer relay and an additional indicator light on the caution and warning panel. This modification provides an "OFF" status indication of the yaw servo hydraulic switch (collective switch) by flashing a newly installed "HYD2" indicator light on the caution and warning panel. Airbus Helicopters identifies performance of this SB as modification 074622. This modification was available when AD 2015-22-53 was issued; however, it was determined unnecessary to address the unsafe condition at that time.

We also reviewed Airbus Helicopters SB No. AS350-67.00.65, Revision 0, dated August 25, 2016, which specifies procedures to replace the bistable push button ACCU TST switch with a monostable push button switch. Airbus Helicopters identifies performance of this SB as modification 074719.

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.

### **Other Related Service Information**

We reviewed Airbus SB No. AS350-67.00.66, Revision 1, dated October 22, 2015, which specifies inserting specific pages of the SB into the rotorcraft flight manual. These pages revise the preflight and post-flight hydraulic checks by moving the tail rotor yaw load compensator check from preflight to post-flight. These pages also revise terminology within the flight manuals for the different engine configurations.

### **Proposed AD Requirements**

This proposed AD would retain the RFM revision that moves the yaw load compensator check (ACCU TST switch) from preflight procedures to post-flight procedures after rotor shut-down. This proposed AD would also retain the RFM revision that requires the yaw servo hydraulic switch (collective switch) to be in the “ON” (forward) position before taking off.

Additionally, this proposed AD would require, within 350 hours time-in-service, installing a timer relay for the yaw servo hydraulic switch (collective switch) and installing an additional light on the caution and warning panel. This proposed AD would also require replacing the bistable ACCU TST button with a monostable button.

### **Costs of Compliance**

We estimate that this proposed AD would affect 86 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Revising an RFM would take about 0.5 work-hour for a cost of \$43 per helicopter

and \$3,698 for the U.S. fleet. Installing a timer relay for the yaw servo hydraulic switch (collective switch) and an indicator light would take about 9 work-hours and parts would cost about \$2,224. Replacing the ACCU TST button would take about 1 work-hour and parts would cost about \$2,244.

Based on these figures, we estimate a total cost of \$5,361 per helicopter and \$461,046 for the U.S. fleet.

### **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.

### **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, 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 to the extent that it justifies making a regulatory distinction; 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.

We prepared an economic evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket.

#### **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 removing airworthiness directive (AD) 2015-22-53, Amendment 39-18331 (80 FR 74982, December 1, 2015), and adding the following new AD:

**Airbus Helicopters:** Docket No. FAA-2017-0826; Product Identifier 2016-SW-084-AD.

**(a) Applicability**

This AD applies to Model AS350B3 helicopters with a dual hydraulic system installed, certificated in any category.

Note 1 to paragraph (a) of this AD: The dual hydraulic system for Model AS350B3 helicopters is referred to as Airbus modification OP 3082 or OP 3346.

**(b) Unsafe Condition**

This AD defines the unsafe condition as lack of hydraulic pressure in a tail rotor (T/R) hydraulic system. This condition could result in loss of T/R flight control and subsequent loss of control of the helicopter.

**(c) Affected ADs**

This AD supersedes AD 2015-22-53, Amendment 39-18331 (80 FR 74982, December 1, 2015).

**(d) Comments Due Date**

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

**(e) Compliance**

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

**(f) Required Actions**

(1) Before further flight, insert a copy of this AD into the rotorcraft flight manual, Section 4 Normal Operating Procedures, or make pen and ink changes to the preflight and post-flight procedures as follows:

(i) Stop performing the yaw load compensator check (ACCU TST switch) during preflight procedures, and instead perform the yaw load compensator check during post-flight procedures after rotor shut-down.

(ii) The yaw servo hydraulic switch (collective switch) must be in the “ON” (forward) position before takeoff.

Note 2 to paragraph (f)(1)(ii) of this AD: The yaw servo hydraulic switch is also called the hydraulic pressure switch or hydraulic cut off switch in various Airbus Helicopters rotorcraft flight manuals.

(2) Within 350 hours time-in-service:

(i) Install a timer relay for the yaw servo hydraulic switch (collective switch) by following the Accomplishment Instructions, paragraph 3.B.2.b.1, 3.B.2.b.2, 3.B.2.b.3, 3.B.2.b.4, 3.B.2.b.5, or 3.B.2.b.6, as applicable to the configuration of your helicopter, of Airbus Helicopters Service Bulletin (SB) No. AS350-67.00.64, Revision 0, dated February 25, 2015 (AS350-67.00.64). If your helicopter has an automatic pilot system, also comply with paragraph 3.B.2.b.7 of AS350-67.00.64.

(ii) Install an indicator light on the caution and warning panel by following the Accomplishment Instructions, paragraph 3.B.2.c.1 or 3.B.2.c.2, as applicable to the configuration of your helicopter, of AS350-67.00.64.

(iii) Replace the bistable ACCU TST button on the control panel with a

monostable button as depicted in Figure 1 or Figure 3, as applicable to the configuration of your helicopter, of Airbus Helicopters SB No. AS350-67.00.65, Revision 0, dated August 25, 2016.

(3) After the effective date of this AD, do not install a bistable ACCU TST button on any helicopter.

**(g) Special Flight Permits**

A special flight permit may be issued for paragraph (f)(2) of this AD only.

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

(1) The Manager, Safety Management Section, FAA, may approve AMOCs for this AD. Send your proposal to: George Schwab, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

**(i) Additional Information**

(1) Airbus Helicopters SB No. AS350-67.00.66, Revision 1, dated October 22, 2015, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000

or (800) 232-0323; fax (972) 641-3775; or at

[http://www.helicopters.airbus.com/website/en/ref/Technical-Support\\_73.html](http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html). You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2016-0220, dated November 4, 2016. You may view the EASA AD on the Internet at <http://www.regulations.gov> in the AD Docket.

**(j) Subject**

Joint Aircraft Service Component (JASC) Code: 2910, Main Hydraulic System.

Issued in Fort Worth, Texas, on August 29, 2017.

Scott A. Horn,

Deputy Director for Regulatory Operations,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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