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EMERGENCY

AIRWORTHINESS DIRECTIVE

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DATE: August 26, 2011

AD #: 2011-18-52

Send to all U.S. owners and operators of Agusta S.p.A. (Agusta) Model AB139 and AW139 helicopters.

This Emergency Airworthiness Directive (AD) is prompted by a fatal accident involving an Agusta Model AW139 helicopter, which may have been caused by cracks in a tail rotor (T/R) blade. This condition, if not detected and corrected, could result in failure of a T/R blade, and subsequent loss of control of the helicopter.

We have reviewed Agusta Bollettino Tecnico (BT) No. 139-265, dated August 25, 2011 (BT No. 139-265), which supersedes Agusta BT No. 139-251, dated May 6, 2011, for the Model AB139 and AW139 helicopters. The BT specifies, within 25 flight hours and at subsequent intervals of every 25 flight hours thereafter, visually inspecting the T/R blades, part number (P/N) 3G6410A00131 or P/N 4G6410A00131, for a crack or signs of damage using a mirror, magnifying glass (5X or greater), and a "hand torch" (flashlight). If there is a crack or signs of damage, the BT specifies sending the damaged blade along with certain data to the manufacturer. In addition, for helicopters with more than 600 flight hours or more than 1,500 landings, whichever occurs first, the BT specifies replacing the T/R blades with blades that have less than 600 flight hours and less than 1,500 landings. The BT specifies sending certain data to the manufacturer regarding the removed T/R blades.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD No. 2011-0156-E, dated August 25, 2011, to correct an unsafe condition for the Agusta Model AB139 and AW139 helicopters. EASA advises that in early 2011, there was a reported occurrence of T/R dynamic "unbalance" on a Model AW139 helicopter. Pending the results of the investigation into that occurrence, EASA issued AD No. 2011-0081, dated May 9, 2011, to require, as a precautionary measure, repetitive inspections of the T/R blades. After that AD was issued, a fatal accident occurred with another Model AW139 helicopter on August 19, 2011, possibly caused by cracks in a T/R blade. EASA advises that this condition, if not detected and corrected, could lead to a T/R structural failure, resulting in loss of control of the helicopter. EASA classified Agusta BT No. 139-265 as mandatory and issued Emergency AD No. 2011-0156-E to ensure the continued airworthiness of these helicopters.

These helicopters have been approved by the aviation authority of Italy, and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, their technical representative, has notified us of the unsafe condition described in their AD. We are issuing this AD because we evaluated all information provided by EASA and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs. Therefore, this AD is being issued to detect and prevent a crack in a T/R blade, which could lead to failure of a T/R blade, and subsequent loss of control of the helicopter. We consider this AD interim action. If final action is later identified, we might consider further rulemaking.

This AD requires, for Model AB139 and AW139 helicopters with T/R blades, P/N 3G6410A00131 or 4G6410A00131, the following actions:

- Within 5 hours time-in-service (TIS), establish a life limit of 600 hours TIS or 1,500 takeoff and landing cycles (cycles), whichever occurs first, on the affected T/R blades and update the helicopter's historical records. If a T/R blade's total number of cycles is unknown, determine the T/R blade cycles by multiplying the T/R blade's hours TIS by 4.

- For a T/R blade that, on the effective date of this AD, has already exceeded 600 hours TIS or 1,500 cycles, within 5 hours TIS replace the T/R blade with an airworthy T/R blade.

- Within 25 hours TIS, and thereafter at intervals not to exceed 25 hours TIS, visually inspect the T/R blade for a crack or damage that exceeds the limits of the applicable maintenance manual. Inspect the T/R blade using a mirror, magnifying glass (5X or greater), and light source; or borescope.

- If there is a crack, or if there is damage that exceeds the limits of the applicable maintenance manual, before further flight, replace the T/R blade with an airworthy T/R blade.

This AD differs from the EASA AD in that we use the term "take-off and landing cycles" and EASA uses the term "flight cycles". In addition, we use the term "hours time-in-service" to describe compliance times, and EASA uses "flight hours". EASA's AD requires you to contact the manufacturer if there is a crack in a T/R blade, and our AD does not require that action. Finally, our AD requires, within 5 hours TIS, replacing a T/R blade that has exceeded the newly revised life limits. EASA's AD requires replacement of the T/R blade within 5 flight hours or 30 days, whichever occurs first.

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

2011-18-52 AGUSTA S.p.A (AGUSTA): Directorate Identifier 2011-SW-055-AD.

Applicability: Agusta Model AB139 and AW139 helicopters, with tail rotor (T/R) blades, part number P/N 3G6410A00131 or P/N 4G6410A00131, certificated in any category.

Compliance: Required as indicated, unless accomplished previously.

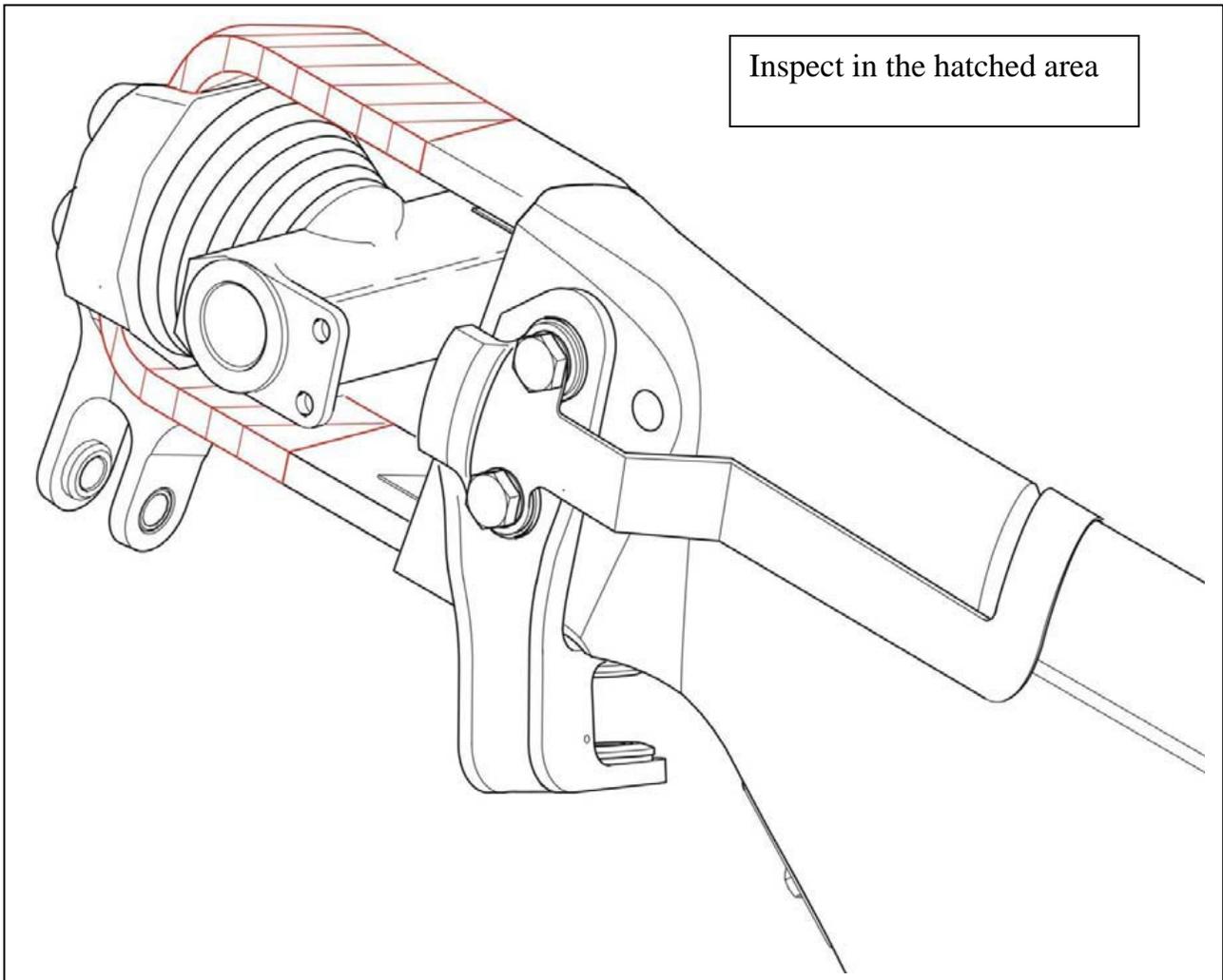
To detect and prevent a crack in a T/R blade, which could lead to failure of a T/R blade, and subsequent loss of control of the helicopter, accomplish the following:

- (a) Within 5 hours time-in-service (TIS), establish a life limit of 600 hours TIS or 1,500 takeoff and landing cycles (cycles), whichever occurs first, on the affected T/R blades and update the helicopter's historical records. If a T/R blade's total number of cycles is unknown, determine the T/R blade cycles by multiplying the T/R blade's hours TIS by 4.

- (b) For a T/R blade that, on the effective date of this AD, has already exceeded 600 hours TIS or 1,500 cycles, within 5 hours TIS replace the T/R blade with an airworthy T/R blade.

- (c) Within 25 hours TIS, and thereafter at intervals not to exceed 25 hours TIS, visually inspect the T/R blade for a crack or damage that exceeds the limits of the applicable maintenance

manual. Inspect in the area depicted in the following figure using a mirror, magnifying glass (5X or greater), and light source; or borescope.



(d) If there is a crack, or if there is damage that exceeds the limits of the applicable maintenance manual, before further flight, replace the T/R blade with an airworthy T/R blade.

(e) This AD revises the Airworthiness Limitations Section of the maintenance manual by reducing the life limit of the T/R blade to 600 hours TIS or 1,500 cycles.

(f) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Safety Management Group, FAA, ATTN: Jim Grigg, Manager, FAA, Safety Management Group, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5126; fax: (817) 222-5961, for information about previously approved alternative methods of compliance.

(g) Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199 to operate the helicopter to a location where the requirements of this AD can be accomplished provided that there is minimal flight crew and there are no passengers.

(h) The Joint Aircraft System/Component (JASC) Code 6410 is: Tail rotor blade.

(i) Copies of the applicable service information may be obtained from Agusta Westland, Customer Support & Services, Via Per Tornaento 15, 21019 Somma Lombardo (VA) Italy, ATTN:

Giovanni Cecchelli; telephone 39- 0331-711133; fax 39 0331 711180; or at <http://www.agustawestland.com/technical-bulletins>.

(j) Emergency AD 2011-18-52 issued August 26, 2011, becomes effective upon receipt.

Note: The subject of this AD is addressed in European Aviation Safety Agency (Italy) Emergency AD No. 2011-0156-E, dated August 25, 2011.

For further information, contact: Jim Grigg, Manager, FAA, Safety Management Group, 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone: (817) 222-5126; fax: (817) 222-5961.

Issued in Fort Worth, Texas, on August 25, 2011

Kim Smith,
Manager, Rotorcraft Directorate,
Aircraft Certification Service.