EMERGENCY AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

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DATE: January 8, 2004
AD #: 2004-01-51

Send to all U.S. owners and operators of Eurocopter France Model AS355E, F, F1, F2, and N helicopters.

This Emergency Airworthiness Directive (AD) is prompted by a report of a main gearbox free-wheel unit slippage, resulting in an engine overspeed and shut down, which occurred during the single-engine phase of an acceptance flight. This condition, if not corrected, could result in an engine overspeed, an engine shut down, and subsequent loss of control of the helicopter.

The FAA has reviewed Eurocopter France (Eurocopter) Alert Telex No. 63.00.21 R1, dated December 19, 2003, which describes procedures for contacting the manufacturer and cleaning the bevel reduction gear pending the results of an ongoing investigation.

The Direction Generale De L'Aviation Civile (DGAC), the airworthiness authority for France, notified the FAA that an unsafe condition may exist on these helicopter models. The DGAC advises of a main gearbox free-wheel slippage with resulting engine shutdown due to overspeed, which occurred during the single-engine phase of an acceptance flight at the Eurocopter works. The DGAC classified the Alert Telex as mandatory and issued AD No. UF-2003-454, dated December 11, 2003, to ensure the continued airworthiness of these helicopters in France.

These helicopter models are manufactured in France and are type certificated for operation in the United States under the provisions of 14 CFR 21.29 and the applicable bilateral agreement. Pursuant to the applicable bilateral agreement, the DGAC has kept the FAA informed of the situation described above. The FAA has examined the findings of the DGAC, reviewed all available information, and determined that AD action is necessary for products of these type designs that are certificated for operation in the United States.

This unsafe condition is likely to exist or develop on other helicopters of the same type design. Therefore, this AD requires, before further flight, for helicopters with less than 10 hours time-in-service with a main gearbox or a combiner gearbox, installed, which was received from Eurocopter Marignane, France, works, replacing the gearbox with an appropriate airworthy gearbox received from another source. This is an interim action pending the results of an ongoing investigation.

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.

2004-01-51 EUROCOPTER FRANCE: Docket No. 2003-SW-56-AD.

Applicability: Model AS355E, F, F1, F2, and N helicopters, with a main gearbox or a combiner gearbox, installed, which was received from Eurocopter Marignane, France, works, certificated in any category.

Compliance: Before further flight, unless accomplished previously.

To prevent slipping of the main gearbox free-wheel unit, an engine overspeed, an engine shut down, and subsequent loss of control of the helicopter, accomplish the following:

(a) For helicopters with less than 10 hours time-in-service (TIS), replace the main gearbox or combiner gearbox with the appropriate airworthy gearbox received from another source.

Note 1: Preliminary investigation has shown that the affected main gearboxes and combiner gearboxes with 10 or more hours TIS are not susceptible to slipping of the free-wheel unit.

Note 2: Eurocopter Alert Telex No. 63.00.21 R1, dated December 19, 2003, pertains to the subject of this AD.

(b) 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 Safety Management Group, Rotorcraft Directorate, FAA, for information about previously approved alternative methods of compliance.

(c) Special flight permits will not be issued.

(d) **Emergency AD 2004-01-51, issued January 8, 2004, becomes effective upon receipt.**

Note 3: The subject of this AD is addressed in Direction Generale de L'Aviation Civile (France) AD No. UF-2003-454, dated December 11, 2003.

FOR FURTHER INFORMATION CONTACT: Uday Garadi, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76193-0110, telephone (817) 222-5123, fax (817) 222-5961.

Issued in Fort Worth, Texas, on January 8, 2004.

David A. Downey
Manager, Rotorcraft Directorate
Aircraft Certification Service