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## **R22**

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## **SERVICE LETTER SL-54**

DATE: 25 March 2004 REVISED: 17 June 2004

TO: All R22 Owners, Operators, and Service Centers

**SUBJECT:** Revised Main Rotor Blade Retirement Life

<u>BACKGROUND:</u> In response to two recent accidents caused by main rotor blade failures, the FAA issued Emergency Airworthiness Directive (AD) 2004-06-52. Both blade failures were caused by fatigue cracks initiated by internal corrosion. Both helicopters exhibited an increase in rotor vibration prior to final blade failure. This letter provides information to assist in complying with the AD.

# **COMPLIANCE INFORMATION:**

Enclosed is a copy of the R22 life-limited parts list approved January 16, 2004, requiring a ten-year life limit for the A016-1 and -2 blades. The new A016-4 blade, with stainless steel skins, has a twelve-year service life.

- 1. All A016-1 main rotor blades (blades without tip weights) are over 10 years old and must be removed from service.
- 2. A016-2 blades over 10 years old must be removed from service. Calendar time may be determined as follows:
  - A. For blades delivered on new helicopters, calendar time begins on date of helicopter's original airworthiness certificate.
  - B. For spare blades, calendar time begins on date of RHC-issued Airworthiness Approval Tag, on RHC-issued yellow Maintenance Release tag, or RHC Invoice for new blade.
  - C. For blades on RHC factory-overhauled helicopters, calendar time begins on the return-to-service date in the aircraft log book or work report.
  - D. If calendar time cannot be established by aircraft or blade records, calendar time begins at date of manufacture. Contact RHC with blade serial number and RHC will supply blade date of manufacture.

#### WARNING

Blades are more susceptible to corrosion if the helicopter is normally parked outside in humid climates, particularly in tropical or coastal areas. RHC strongly recommends that A016-1 & -2 blades operated in these corrosive areas be removed from service as soon as possible and prior to 5 years time-in-service.

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- For A016-2 blades that are over five years old or have over 1000 hours time in service, track and balance rotor system per R22 Maintenance Manual Section 10.200.
- 4. If a main rotor goes out of balance anytime within five hours after track and balance, land immediately and remove the blades from service (reference Safety Notice SN-39).

## Cost:

R8247 A016-4 Replacement Blades (reuse spindles) US\$15,000/two blade set\*

To reuse spindles, cut off root portion (first 2 ft.) of blades and return to RHC with spindles still installed. RHC will remove and install spindles in new A016-4 blades using new spindle bearings. Includes labor and crating. US\$4000 added to price if blades returned are over 12 years old.

R9150 A005-6 Replacement Blade & Spindle Assys US\$25,000/two blade set\*

Includes two new A016-4 blades with new A158-1 spindles, bearings, and crating. US\$4000 will be refunded if cut-off root portions (first 2 ft.) of both A016-2 blades, with spindles installed, are returned to RHC within 120 days of purchase. Credit will not be issued for blades over 12 years old or for blades replaced as part of a 2200-hour overhaul kit.

<sup>\*</sup>Normal Service Center Discounts do not apply.