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R22 SERVICE LETTER SL-93

R44 SERVICE LETTER SL-82

R66 SERVICE LETTER SL-40

DATE: 30 June 2021

TO: R22-series, R44-series, & R66 Owners, Operators, & Maintenance Personnel

SUBJECT: Tail Rotor Blade Condition and Care

BACKGROUND: RHC has recently seen tail rotor blades that were allowed to corrode to an unserviceable condition including severe leading edge pitting and degradation of the bond at the tip cap. Regular preventive maintenance is imperative for continued safe operation and additional care may be required in corrosive environments such as coastal or shipboard operations. Recommended practices to prevent and mitigate the effects of corrosion are provided below.

RECOMMENDED PRACTICES:

1. Pilots should inspect tail rotor blade leading edges carefully during daily preflight.

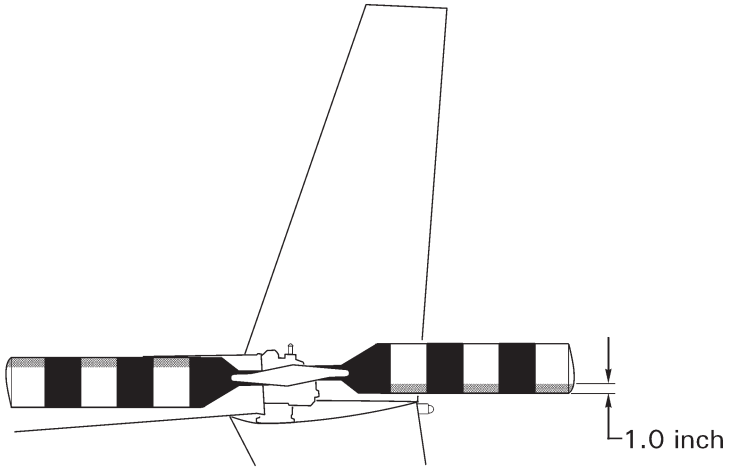
2. Blade condition should be maintained as follows:

   Remove any corrosion and loose paint by hand-sanding in a spanwise direction using 220-grit aluminum-oxide abrasive paper and minimum 0.1 inch blend radius; finish sand with 320-grit aluminum-oxide abrasive paper. Remove only material necessary to eliminate corrosion; any hole that completely penetrates blade skin requires blade replacement.

   Feather edge of paint bordering any bare metal by hand-sanding spanwise with 320-grit or finer wet-or-dry aluminum-oxide abrasive paper. Do not remove bare metal when feather sanding.

   Preferred blade condition is with fully painted leading edge. Use two coats of Desoprime CA7501 epoxy primer (or equivalent). Scuff primer prior to applying second coat. Use Dupont Imron polyurethane enamel or equivalent paint. Refer to aircraft Maintenance Manual (MM) for specific paint codes. Blades with striped leading edges may be painted with solid black leading edge as shown below if desired for ease of application:

(OVER)



Paint offers the best protection against leading edge corrosion. If painting blades is impractical, at least a single coat of primer on leading edges provides some protection.

3. Balance tail rotor per applicable MM after any corrosion removal or painting.

4. When operating in a corrosive environment, even if leading edge paint/primer is intact, clean tail rotor daily per POH section 8, Cleaning Helicopter (mild soap means a pH between 7 & 9). If waxing blades is impractical, wipe blade leading edges with standard WD-40® brand light oil or equivalent; do not use ACF-50® lubricant or “Specialist” versions of WD-40® on blades, and do not use Salt-Away®.

5. At each 100-hour inspection, tap test tip cap area shown below to verify bond integrity. Reference tap test instructional video at: https://robinsonheli.com/wp-content/uploads/2021/06/taptest_05_apr_2010.mp4