



AIRCRAFT OWNERS AND PILOTS ASSOCIATION

421 Aviation Way • Frederick, MD 21701-4798
Telephone (301) 695-2000 • FAX (301) 695-2375

January 23, 2001

Mr. Henry A. Armstrong
Manager, FAA Rotorcraft Directorate
Southwest Region Headquarters – ASW-100
2601 Meacham Blvd., Room 4N3
Fort Worth, TX 76137

COPY

Mr. Armstrong,

The Aircraft Owners and Pilots Association (AOPA), representing the aviation interests of more than 365,000 pilots and aircraft owners, submits the following informal comments to Final Rule Airworthiness Directive (AD) 2000-18-51. The AD, applicable to various model Bell 47 helicopters, requires recurring liquid penetrant or eddy current inspections of the main rotor blade grip threads for cracks. The AD also requires replacement of cracked grips and establishes a retirement life of 1,200 hours time-in-service (TIS) for each grip.

In light of new data that has recently come to light through the efforts of owners organizations, aircraft type-clubs, and individual owners and operators of Bell 47 helicopters, AOPA maintains that AD 2000-18-51 mandates actions that are largely unwarranted. The information obtained through industry research efforts paints a much clearer, and very different, picture of blade grip failures than was reported by the FAA during the development of this AD.

AOPA agrees with and supports Chris Anderson's comments to Docket 2000-SW-35-AD, dated January 10, 2001. To clarify AOPA's position on this AD, a listing of our major concerns follows:

- Australian and Canadian airworthiness authorities, both of which are historically more conservative than the FAA when dealing with airworthiness concerns, have maintained their respective blade grip retirement times of in lieu of lowering the service life of the blade grip to the FAA's current 1,200 hours TIS level.
- According to a recent Experimental Aircraft Association (EAA) survey of Bell 47 owners, 99.9994% of grips inspected under AD 2000-18-51 passed inspection. Further, 57% of the grips reported in the survey have total times in excess of 1,200 hours TIS.
- In response to EAA's survey, numerous mechanics (most with at least two decades experience working on Bell 47 helicopters) stated that they had inspected hundreds of grips without seeing any cracks.

Federal Aviation Administration
Page 2
January 23, 2001

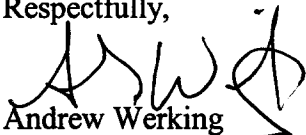
- The FAA has issued over 100 Alternative Means of Compliance (AMOC) – at least 200 grips have been inspected and approved for continued operation above 1,200 and 2,500 hours TIS.
- AD 2000-18-51's recurrent inspection interval of 200 hours falls outside of Bell's recommended inspection program. Bell Helicopter Product Support Engineers, Product Safety Engineers, and Bell/FAA approved repair stations all agree that repeated main rotor disassembly/reassembly at intervals required in the current AD will substantially increase the probability of induced, undetected damage to the main rotor system.
- Bell's 1,200 hour TIS main rotor grip retirement life is not based on any type of fatigue or structural testing.
- Over half of the Bell 47 fleet is grounded due to parts unavailability.

Note: For supporting information on the above listed items, refer to Mr. Chris Anderson's comments to Rules Docket 2000-SW-35-AD, dated January 10, 2001.

AOPA applauds the Experimental Aircraft Association and Mr. Chris Anderson of Progressive Air, Inc. for coordinating and carrying out this information gathering effort. Further, we believe that the results of EAA's survey and the information highlighted in Mr. Chris Anderson's comments to this rules docket are shining examples how the aviation community can provide the FAA with the information necessary to reach sensible and affordable solutions to legitimate airworthiness concerns. Thus, we look forward to discussing ways in which the FAA's Rotorcraft Directorate can include such industry input prior to rulemaking and *during the development* of an airworthiness concern.

Thank you for your time and consideration in this matter. AOPA stands ready to assist the FAA in reconsidering the provisions of AD 2000-18-51.

Respectfully,



Andrew Werking
Senior Government Analyst
Regulatory and Certification Policy

P.S. - I look forward to discussing all of these matters in greater detail with you and your staff during your upcoming meeting with EAA and Chris Anderson. On January 19th I

Federal Aviation Administration

Page 3

January 23, 2001

spoke briefly with your assistant manager Eric Bries about participating in the meeting wrap-up via conference call. At that time we were unsure of the exact date/time of the meeting wrap-up and were unable to make concrete plans for a conference call. I'll be available the afternoon of the 29th and the morning of the 30th for conference. I should require no more than 2 hours notice to make the necessary internal arrangements prior to the telecon. I can be reached at [REDACTED]

cc: Ronald T. Wojnar, Deputy Director – Aircraft Certification Service
Eric D. Bries, Assistant Manager – Rotorcraft Directorate
Earl Lawrence, Executive Director of Government Relations – EAA
Christopher Anderson, President – Progressive Air, Inc.