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December 6, 2002

Docket Management System
U.S. Department of Transportation
400 Seventh Street, SW
Room Plaza 401
Washington, D.C. 20590-0001

02 DEC 12 PM 1:26
DEPT OF TRANSPORTATION

Reference: Docket No. FAA-2002-13744-6
Subject: Extension of SFAR 73

Dear Sir:

SFAR 73 was put into effect in March 1995 on an emergency basis. Worldwide, flight and accident experience before March 1995 was primarily based on R22 helicopters. By March 1995, more than 2,500 R22s had been delivered while only 160 R44s had been delivered.

No doubt, before SFAR 73 was issued, the R22 had an accident rate indicating that improved training and better trained helicopter instructor pilots were needed. SFAR 73 provided that increase in experience and training levels. Accident data since 1995 shows that SFAR 73 was very successful in reducing R22 accidents. Therefore, SFAR 73 as it applies to the R22 should be extended.

However, if SFAR 73 is renewed, all references to the R44 helicopter should be removed. In 1995, the R44 helicopter was included in SFAR 73 primarily because the FAA saw the R44 as mechanically similar to the smaller R22. Therefore, the FAA incorrectly concluded that the R44 had "similar operating characteristics" to the R22. This is not the case. Many operating characteristics of the R22 and R44 are not similar. Due to the R44's increased size and rotor diameter, higher main rotor blade inertia, and heavier empty weight, the R44 has operating characteristics much more similar to the Bell 206 series than to the R22.

Nearly 1,300 R44 helicopters have now been delivered worldwide. These recently delivered R44s have greatly increased R44 flight experience giving a much clearer picture of the R44's accident rate. Since May 1995, when low-G pushovers were prohibited in both the R22 and R44, there has not been an R44 accident attributed to pilot induced low-G mast bumping or to low RPM rotor stall causing an in-flight main rotor blade contact with the cabin or tailcone. Based on this expanded flight experience and the R44's very low accident rate, there is no reason for the R44 to remain in SFAR 73.

Please find attached copy of a proposed reworded SFAR 73 which would only apply to the R22 helicopter.

In addition, please consider reducing the extension from five years to two years. Two years is plenty of time for the FAA with industry input to address regulations and policies governing helicopter pilot and flight instructor training and experience requirements.

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Page 2
December 6, 2002

Fundamentally, U.S. helicopter training requirements need to be increased and brought into line with current international standards. For example, in most foreign nations, helicopter pilots and flight instructors are not allowed to use fixed wing experience in meeting requirements for helicopter ratings. Once this issue is addressed, the cumbersome, model-specific SFAR can be eliminated altogether.

Yours truly,
ROBINSON HELICOPTER COMPANY


SHERWOOD A. BRESLER
Chief Accident Investigator

SAB/mfs

Enclosure

SPECIAL FEDERAL AVIATION
REGULATIONS

SFAR No. 73 - ROBINSON R22 SPECIAL
TRAINING AND EXPERIENCE
REQUIREMENTS

Sections

1. Applicability.
2. Required training, aeronautical experience, endorsements, and flight review.
3. Expiration date.

1. Applicability. Under the procedures prescribed herein, this SFAR applies to all persons who seek to manipulate the controls or act as pilot in command of a Robinson model R22 helicopter. The requirements stated in this SFAR are in addition to the current requirements of part 61.

2. Required training, aeronautical experience, endorsements, and flight review.

(a) Awareness Training:

(1) Except as provided in paragraph (a)(2) of this section, no person may manipulate the controls of a Robinson model R22 helicopter after March 27, 1995, for the purpose of flight unless the awareness training specified in paragraph (a)(3) of this section is completed and the person's logbook has been endorsed by a certified flight instructor authorized under paragraph (b)(3) of this section.

(2) A person who holds a rotorcraft category and helicopter class rating on that person's pilot certificate and meets the experience requirements of paragraph (b)(1) of this section may not manipulate the controls of a Robinson model R22 helicopter for the purpose of flight after April 26, 1995, unless the awareness training specified in paragraph (a)(3) of this section is completed and the person's logbook has been endorsed by a certified flight instructor authorized under paragraph (b)(3) of this section.

(3) Awareness training must be conducted by a certified flight instructor who has been endorsed under paragraph (b)(3) of this section and consists of instruction in the following general subject areas:

- (i) Energy management;
- (ii) Mast bumping;
- (iii) Low rotor RPM (blade stall);
- (iv) Low G hazards; and
- (v) Rotor RPM decay.

(4) A person who can show satisfactory completion of the manufacturer's safety course after January 1, 1994, may obtain an endorsement from an FAA aviation safety inspector in lieu of completing the awareness training required in paragraphs (a)(1) and (a)(2) of this section.

(b) Aeronautical Experience:

(1) No person may act as pilot in command of a Robinson model R22 unless that person:

(i) Has had at least 200 flight hours in helicopters, at least 50 flight hours of which were in the Robinson R22; or

(ii) Has had at least 10 hours dual instruction in the Robinson R22 and has received an endorsement from a certified flight instructor authorized under paragraph (b)(3) of this section that the individual has been given the training required by this paragraph and is proficient to act as pilot in command of an R22. Beginning 12 calendar months after the date of the endorsement, the individual may not act as pilot in command unless the individual has completed a flight review in an R22 within the preceding 12 calendar months and obtained an endorsement for that flight review. The dual instruction must include at least the following abnormal and emergency procedures flight training:

(A) Enhanced training in autorotation procedures,

(B) Engine rotor RPM control without the use of the governor ,

(C) Low rotor RPM recognition and recovery, and

(D) Effects of low G maneuvers and proper recovery procedures.

(2) A person who does not hold a rotorcraft category and helicopter class rating must have had at least 20 hours of dual instruction in a Robinson R22 helicopter prior to operating it in solo flight. In addition, the person must obtain an endorsement from a certified flight instructor authorized under paragraph (b)(3) of this section that instruction has been given in those maneuvers and procedures, and the instructor has found the applicant proficient to solo a Robinson R22. This endorsement is valid for a period of 90 days. The dual instruction must include at least the following abnormal and emergency procedures flight training:

(i) Enhanced training in auto rotation procedures,

(ii) Engine rotor RPM control without the use of the governor ,

(iii) Low rotor RPM recognition and recovery, and

(iv) Effects of low G maneuvers and proper recovery procedures.

(3) No certificated flight instructor may provide instruction or conduct a flight review in a Robinson R22 unless that instructor-

(i) Completes the awareness training in paragraph 2(a) of this SFAR.

(ii) For the Robinson R22, has had at least 200 flight hours in helicopters, at least 50 flight hours of which were in the Robinson R22.

(iii) Has completed flight training in a Robinson R22 on the following abnormal and emergency procedures-

(A) Enhanced training in autorotation procedures;

(B) Engine rotor RPM control without the use of the governor;

(C) Low rotor RPM recognition and recovery; and

(D) Effects of low G maneuvers and proper recovery procedures.

(iv) Has been authorized by endorsement from an FAA aviation safety inspector or authorized designated examiner that the instructor has completed the appropriate training, meets the experience requirements and has satisfactorily demonstrated an ability to provide instruction on the general subject areas of paragraph 2(a)(3) of this SFAR, and the flight training identified in paragraph 2(b)(3)(iii) of this SFAR.

(c) Flight Review:

(1) No flight review completed to satisfy §61.56 by an individual after becoming eligible to function as pilot in command in a Robinson R22 helicopter shall be valid for the operation of R22 helicopter unless that flight review was taken in an R22.

(2) The flight review will include a review of the awareness training subject areas of paragraph 2(a)(3) of this SFAR and the flight training identified in paragraph 2(b) of this SFAR.

(d) Currency Requirements: No person may act as pilot in command of a Robinson model R22 helicopter carrying passengers unless the pilot in command has met the recency of flight experience requirements of § 61.57 in an R22 , as appropriate.

3. *Expiration date.* This SFAR expires on December 31, 2005, unless sooner superceded or rescinded.

[Doc. No.25910, 62 FR 16298, Apr. 4, 1997, as amended by SFAR 73-1, 63 FR 666, Jan. 7 1998]