Rules and Regulations

Federal Register

Vol. 60, No. 41

Thursday, March 2, 1995

This section of the FEDERAL REGISTER contains regulatory documents having general applicability and legal effect, most of which are keyed to and codified in the Code of Federal Regulations, which is published under 50 titles pursuant to 44 U.S.C. 1510.

The Code of Federal Regulations is sold by the Superintendent of Documents. Prices of new books are listed in the first FEDERAL REGISTER issue of each week.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 95-SW-12-AD; Amendment 39-9165; AD 95-04-13]

Airworthiness Directives; Robinson Helicopter Company Model R44 Helicopters

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule; request for

comments.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), applicable to Robinson Helicopter Company Model R44 helicopters, that currently requires revisions to the Limitations section, the Normal Procedures section, and the Emergency Procedures section of the R44 Rotorcraft Flight Manual, revised September 6, 1994. These revisions limit operations in high winds and turbulence; provide information about main rotor (M/R) stalls and mast bumping; and provide recommendations for avoiding these situations. Additionally, emergency procedures are provided for use should certain conditions be encountered. This amendment requires the same revisions required by the existing Priority Letter AD, but revises certain words and phrases to further clarify the revised Limitations and Normal Procedures sections, deletes the paragraph that referenced recording compliance with the AD, and adds another paragraph that states that no special flight permits will be issued prior to compliance with this AD. This amendment is prompted by two Model R44 accidents since April 1994 involving M/R blades contacting the helicopters' fuselage; and, 26 accidents involving M/R blades contacting the fuselage on the Model R22 helicopter since 1981. The Model

R22 helicopter M/R system design is similar to the Model R44 helicopter M/R system design. The actions specified by this AD are intended to prevent M/R stall or mast bumping, which could result in the M/R blades contacting the fuselage causing failure of the M/R system and subsequent loss of control of the helicopter.

DATES: Effective March 17, 1995.

Comments for inclusion in the Rules Docket must be received on or before May 1, 1995.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), Office of the Assistant Chief Counsel, Attention: Rules Docket No. 95–SW–12–AD, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

FOR FURTHER INFORMATION CONTACT: Mr. Scott Horn, Aerospace Engineer, FAA, Rotorcraft Directorate, Rotorcraft Standards Staff, Southwest Region, 2601 Meacham Blvd., Fort Worth, Texas 76137, telephone (817) 222–5125, fax (817) 222–5961.

SUPPLEMENTARY INFORMATION: On January 12, 1995, the FAA issued Priority Letter AD 95-02-04, to require revisions to the Limitations section, the Normal Procedures section, and the Emergency Procedures section of the R44 Rotorcraft Flight Manual, revised September 6, 1994. These revisions limit operations in high winds, turbulence, and wind shear conditions; provide information about M/R stalls and mast bumping; and, provide recommendations for avoiding these situations. That action was prompted by two Model R44 accidents since April 1994 involving M/R blades contacting the helicopters' fuselage. M/R stall and mast bumping may have caused these M/R blade contacts with the fuselage. Both of these accidents resulted in fatalities. Limited pilot experience in rotorcraft has been identified as common to these accidents. High winds and turbulence were also noted in both of the accidents. Airspeed and low rotor RPM could also be influencing factors in these M/R blades contacting the fuselage. Flight in strong or gusty winds, areas of wind shear, or areas of moderate, severe, or extreme turbulence can degrade the helicopter handling qualities, thereby creating an unsafe condition. These conditions, if not compensated for, could result in M/R stall or mast bumping, which could

result in the M/R blades contacting the fuselage causing failure of the M/R system and subsequent loss of control of the helicopter.

Since the issuance of that AD, the FAA has determined that the words "areas of forecasted or reported" should be deleted from the revision to the Limitations section of the Model R44 Rotorcraft Flight Manual, revised September 6, 1994. Some operators receive area forecasts and reports that cover wide geographic regions. These forecasts and reports can refer to turbulence in areas unrelated to the actual area of operation. Forecasted or reported wind shear or turbulence outside of the operational area was not intended to be a flight limitation. The word "spreads" was added to the term "wind gusts" to define this limitation as the spread or variance of wind velocities. The phrase "but no lower than 60 knots" was added to the Limitations section because of the possibility that at higher altitudes, 0.7 V_{ne} could be lower than 60 knots. Additionally, the phrase "but no lower than 60 knots" was added to recommendation (1) of the Normal Procedures section because of the possibility that at higher altitudes, 0.9 V_{ne} could be lower than 60 knots. Below 60 knots, the energy required to recover from a low-rotor RPM condition by flaring the helicopter and converting forward airspeed to rotor speed is unavailable. The reference to the requirement to report compliance that was contained in paragraph (b) of the existing Priority Letter AD has been deleted since part 91.147(a)(2)(v) already contains that requirement. Finally, another paragraph has been inserted to state that special flight permits will not be issued to operators for the purpose of obtaining and inserting the three pages into the rotorcraft flight manual. Due to the immediate compliance time and the criticality of preventing M/R blade contacts with the fuselage, this rule is being issued immediately to revise the operating limitation of the helicopter to a safer level.

Since an unsafe condition has been identified that is likely to exist or develop on other Robinson Helicopter Company Model R44 helicopters of the same type design, this AD supersedes Priority Letter AD 95–02–04 to require the same revisions to the Limitations