中国民用航空局



CAAC 适 航 指 令

AIRWORTHINESS DIRECTIVE

本指令根据中国民用航空规章《民用航空器适航指令规定》(CCAR-39)颁发,内容涉及飞行安全,是强制性措施。如不按规定完成,有关航空器将不再适航。

编号: CAD2004-R044-01

修正案号: 39-4533

- 一. 标题: 更改飞行手册
- 二. 适用范围: 罗宾逊直升机公司 R44 直升机。

三. 参考文件:

- 1、FAA AD 95-26-05 R1,修正案: 39-13704,2004 年 7 月 6 日 颁发;
- 2、FAA AD 95-26-05,修正案: 39-9463, 1996年1月26日生效。

四. 原因、措施和规定

本指令取消FAA AD 95-26-05, 修正案: 39-9463, 1996年1月 26日生效。

FAA AD 95-26-05(修正案: 39-9463, 1996年1月26日生效)要求对旋翼机飞行手册(RFM)进行修改。改版的旋翼机飞行手册(RFM)对大风及紊流条件下的运行提出限制,对避免出现主旋翼失速及旋翼主轴冲击震动提出建议,同时增加了在某些情况下的应急操作的程序。由于FAA认为AD 95-26-05中规定的限制条件及操作程序对于纠正不安全状态已不必要,故决定取消AD 95-26-05。

附件: FAA AD 95-26-05, 修正案: 39-9463, 1996年1月26日生效。

AD (R-44) 95-26-05

Robinson Helicopter Company: Amendment 39-9463. Docket No. 95-SW-30-AD. Supersedes AD 95-04-13, Amendment 39-9165.

Applicability: Model R44 helicopters, certificated in any category.

Note 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must use the authority provided in paragraph (b) to request approval from the FAA. This address either no action. if approval may the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, repair any helicopter alteration. or remove from applicability of this AD.

Compliance: Required before further flight, unless accomplished previously.

Note 2: Regardless of the experience level of the pilot manipulating the controls or the amount or quality of the awareness training received by the pilot manipulating the controls, these changes to the flight manual are in no way intended to authorize flight in any condition(s) or under any circumstance(s) that are otherwise contrary to other Federal Aviation Regulations.

To prevent main rotor (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, accomplish the following:

(a) Insert the following information into the Model R44 Rotorcraft Flight Manual. Compliance with the Limitations section is mandatory. The Normal Procedures and Emergency Procedures sections are informational.

Limitations Section

The following limitations (1-3) are to be observed unless the pilot manipulating the controls has logged 200 or more flight hours in helicopters, at least 50 of which must be in the RHC Model R44 helicopter, and has completed the awareness training specified in Special Federal Aviation Regulation (SFAR) No. 73, issued February 27, 1995.

- (1) Flight when surface winds exceed 25 knots, including gusts, is prohibited.
- (2) Flight when surface wind gust spreads exceed 15 knots is prohibited.
- (3) Continued flight in moderate, severe, or extreme turbulence is prohibited.

Adjust forward airspeed to between 60 knots indicated airspeed (KIAS) and 0.7 Vne, but no lower than 60 KIAS, upon inadvertently encountering moderate, severe, or extreme turbulence.

Note: Moderate turbulence is turbulence that causes: (1) changes in altitude or attitude; (2) variations in indicated airspeed; and (3) aircraft occupants to feel definite strains against seat belts.

Normal Procedures Section

Note: Until the FAA completes its research into the conditions

and aircraft characteristics that lead to main rotor blade/fuselage contact accidents, and corrective type design changes and operating limitations are identified, Model R44 pilots are strongly urged to become familiar with the following information and comply with these recommended procedures.

Main Rotor Stall: Many factors may contribute to main rotor stall and pilots should be familiar with them. Any flight condition that creates excessive angle of attack on the main rotor blades can produce a stall. Low main rotor RPM, aggressive maneuvering, high collective angle (often the result of high-density altitude, over-pitching [exceeding power available] during climb, or high forward airspeed) and slow response to the low main rotor RPM warning horn and light may result in main rotor stall. The effect of these conditions can be amplified in turbulence. Main rotor stall can ultimately result in contact between the main rotor and airframe. Additional information on main rotor stall is provided in the Robinson Helicopter Company Safety Notices SN-10, SN-15, SN-20, SN-24, SN-27, and SN-29.

Mast Bumping: Mast bumping may occur with a teetering rotor system when excessive main rotor flapping results from low "G" (load factor below 1.0) or abrupt control input. A low "G" flight condition can result from an abrupt cyclic pushover in forward flight. High forward airspeed, turbulence, and excessive sideslip can accentuate the adverse effects of these control movements. The excessive flapping results in the main rotor hub assembly striking the main rotor mast with subsequent main rotor system separation from the helicopter.

To avoid these conditions, pilots are strongly urged to follow these recommendations:

- (1) Maintain cruise airspeeds greater than $60\ \text{KIAS}$ and $1\ \text{ess}$ than $0.9\ \text{Vne}.$
 - (2) Use maximum "power-on" RPM at all times during powered

flight.

- (3) Avoid sideslip during flight. Maintain in-trim flight at all times.
- (4) Avoid large, rapid forward cyclic inputs in forward flight, and abrupt control inputs in turbulence.

Emergency Procedures Section

- (1) RIGHT ROLL IN LOW "G" CONDITION Gradually apply aft cyclic to restore positive "G" forces and main rotor thrust. Do not apply lateral cyclic until positive "G" forces have been established.
- (2) UNCOMMANDED PITCH, ROLL, OR YAW RESULTING FROM FLIGHT IN TURBULENCE. Gradually apply controls to maintain rotor RPM, positive "G" forces, and to eliminate sideslip. Minimize cyclic control inputs in turbulence; do not overcontrol.
- (3) INADVERTENT ENCOUNTER WITH MODERATE, SEVERE, OR EXTREME TURBULENCE. If the area of turbulence is isolated, depart the area; otherwise, land the helicopter as soon as practical.
- (b) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used when approved by the Manager, Rotorcraft Standards Staff, Rotorcraft Directorate, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Rotorcraft Standards Staff.
- Note 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Rotorcraft Standards Staff.
- (c) Special flight permits, pursuant to sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), will not be issued.
 - (d) This amendment becomes effective on January 26, 1996.

五. 生效日期: 2004年8月11日

六. 颁发日期: 2004年8月11日

七. 联系人: 钟颖芬

民航中南地区管理局适航审定处

020-86122503