Subject: Robinson R22, R44 and R66 helicopters – Risk of flight in turbulent atmosphere

Ref. Publications:
BEA (Bureau d’Enquêtes et d’Analyses) Safety Recommendation FRAN-2015-030
Robinson Helicopter Company (RHC) Safety Notice SN-32
Robinson R22 Pilot’s Operating Handbook and Approved Rotorcraft Flight Manual
Robinson R44 Pilot’s Operating Handbook and Approved Rotorcraft Flight Manual
Robinson R66 Pilot’s Operating Handbook and Approved Rotorcraft Flight Manual
EASA Operational Suitability Data (OSD) – Flight Crew Data Reports:
  RTR 165 for R22 helicopters, dated 11 December 2015
  RTR 465 for R44 helicopters, dated 11 December 2015
  RTR 665 for R66 helicopters, dated 28 September 2015

Applicability:
Robinson R22, R44 and R66 helicopters.

Description:
An accident was reported involving a Robinson R44 helicopter. The accident occurred after one of the blades impacted the airframe as a result of mast bumping during a flight in turbulence at a speed higher than recommended by RHC, the helicopter manufacturer. The subsequent investigation determined that the speeds recommended to fly when encountering turbulence are listed in RHC Safety Notice SN-32 only, which is an appendix of the approved R22, R44 and R66 rotorcraft flight manual, without referencing this information in the Limitation Section of the manual.

The BEA (Bureau d’Enquêtes et d’Analyses), the competent investigation authority issued Safety Recommendation addressed to EASA (FRAN 2015 030), referring also to previous similar accidents on Robinson R22 and R44 helicopters, and providing recommendations to ensure that helicopter operators strictly observe limitations applicable to flight in turbulent atmosphere.

At this time, the safety concern described in this SIB is not considered to be an unsafe condition that would warrant Airworthiness Directive (AD) action under Regulation (EU) 748/2012, Part 21.A.3B and does not warrant the issuance of a safety measure under Regulation (EU) 965/2012, Annex II, ARO.GEN.135(c).

This is information only. Recommendations are not mandatory.
Recommendation(s):

EASA recommends:

(1) Inform all Robinson R22, R44 and R66 helicopters crew about the content of RHC Safety Notice SN-32 and thereafter operate the helicopter accordingly.

(2) Avoid flights with Robinson R22, R44 and R66 helicopters in high winds or turbulence and, if encountered, to strictly follow RHC Safety Notice SN-32 for flight in high winds or turbulence.

Contact(s):
For further information contact the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

For queries or request for guidance on the content of this SIB, please contact: E-mail: OSD@easa.europa.eu.