



SUBJ: Crash Resistant Seats and Structure

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin (SAIB) notifies all registered helicopter owners and operators of helicopters that are compliant with the crash resistant seats and structure (CRSS) safety standards of Title 14 of the Code of Federal Regulations (14 CFR) Part 27 through Amendment 27-25 or Part 29 through Amendment 29-29 or later.

Non-CRSS compliant helicopters do not warrant airworthiness directive (AD) action under 14 CFR part 39. However, operating a helicopter with CRSS reduces the risk of blunt force trauma injury and improves occupant survivability in an accident.

Background

On December 13, 1989, more stringent CRSS became a regulatory requirement via Amendment 27-25 of 14 CFR Part 27 and Amendment 29-29 of 14 CFR Part 29. The amendments include §§ 27.561, 27.562, 27.785, 29.561, 29.562, and 29.785. The regulations apply to newly type-certificated rotorcraft. Since the regulations are not retroactive, no requirement exists to incorporate their requirements into the existing fleet. The regulations also do not apply to newly manufactured rotorcraft if the rotorcraft are produced under a type design that existed before the regulations became effective on December 13, 1989.

The design requirements included in Part 27 at Amendment 27-25 and Part 29 at Amendment 29-29 increase survivability in the event of a crash by increasing the protection to occupants from excessive vertical and longitudinal impact loads. These requirements also improve survivability by addressing the occupant's secondary impact with the rotorcraft's structure, as well as items of mass that may become loose on impact. The design requirements are based in part on the data and conclusions in Report No. DOT/FAA/CT-85/11. The report indicates occupants may be protected by seat designs that use energy management or dissipation and by proper occupant restraint.

Recommendations

The FAA recommends owners and operators understand the level of crash resistance for the seats and structure provided by their helicopters. The FAA maintains a list (Table 1) of helicopters compliant with the full CRSS safety standards of 14 CFR Part 27 through Amendment 27-25 or later and Part 29 through Amendment 29-29 or later at the following website: https://www.faa.gov/aircraft/air_cert/design_approvals/rotorcraft/media/rot_CRSS_Compliant_List.pdf

For Further Information, Contact

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