



SUBJ: Fuel System

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 either 1) fully compliant with the crash resistant fuel system (CRFS) safety standards of Title 14 of the Code of Federal Regulations (14 CFR) Part 27 through Amendment 27-30 or Part 29 through Amendment 29-35 or 2) compliant with the requirements listed in 49 U.S.C. § 44737 (2018). The statutory requirement of 49 U.S.C. § 44737 (2018) was established by the FAA Reauthorization Act of 2018 (H.R. 302, Pub.L. 115-254), Section 317, HELICOPTER FUEL SYSTEM SAFETY.

Non-CRFS compliant helicopters do not warrant airworthiness directive (AD) action under 14 CFR part 39. However, operating a helicopter with either a full CRFS or a partial CRFS reduces the risk of post-crash fires and improves occupant survivability in an accident.

Background

On November 2, 1994, helicopter fuel system crash resistance became a regulatory requirement via Amendment 27-30 of 14 CFR Part 27 and Amendment 29-35 of 14 CFR Part 29. The amendments include §§ 27.952 and 29.952, along with other related regulatory sections of Part 27 and Part 29. The regulations apply only 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 (November 2, 1994).

The design requirements included in Part 27 at Amendment 27-30 and Part 29 at Amendment 29-35 increase safety in the event of a survivable crash by either decreasing the likelihood or delaying the onset of post-crash fires. The intent of both amendments is to minimize crash-induced fuel leaks and their contact with potential fuel ignition sources during and after a crash, and increase the time occupants have to egress before a post-crash fire becomes critical.

On October 5, 2018, 49 U.S.C. § 44737 (2018) became public law. This law lists the helicopter fuel system safety requirements for operation of a “covered” rotorcraft in the United States airspace. The requirements take effect April 5, 2020, corresponding to 18 months after the date of enactment. The law only applies to newly manufactured rotorcraft. The requirements include a subset of paragraphs from §§ 27.952 and 29.952, §§ 27.963 and 29.963, and §§ 27.975 and 29.975. The requirements are consistent with recommendations that the Aviation Rulemaking Advisory Committee (ARAC) Rotorcraft Occupant Protection Working Group (ROPWG) provided to the FAA on March 23, 2018 to improve rotorcraft fuel system crash resistance. The 14 CFR Part 21, 27, and 29 certification approval process for fuel systems does not change with the establishment of the 49 U.S.C. § 44737 (2018) requirements.

Recommendations

The FAA recommends owners and operators pursue installation of fuel systems that improve the fuel system crash resistance capability of their helicopters. The FAA maintains a list (Table 1) of helicopters compliant with the full CRFS safety standards of 14 CFR Part 27 through Amendment 27-30 and Part 29 through Amendment 29-35. The FAA also maintains a separate list (Table 2) of helicopters that meet the minimum CRFS requirements established by 49 U.S.C. § 44737 (2018) but do not comply with the full CRFS safety standards of 14 CFR Part 27 through Amendment 27-30 or Part 29 through Amendment 29-35. Table 2 further identifies helicopters that exceed the 49 U.S.C. § 44737 (2018) minimum requirements and comply with other related CRFS regulatory sections. These lists are available at

https://www.faa.gov/aircraft/air_cert/design_approvals/rotorcraft/media/rot_CRFS_Compliant_List.pdf

For Further Information, Contact

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