

ft.³ in interior volume are not addressed by this special condition. The in-flight accessibility of very large, enclosed, stowage compartments and the subsequent impact on the

crewmembers' ability to effectively reach any part of the compartment with the contents of a hand-held fire-extinguishing system will require additional fire-protection considerations

similar to those required for inaccessible compartments such as Class C cargo compartments.

DESIGN CRITERIA FOR ENCLOSED STOWAGE COMPARTMENTS NOT LIMITED TO STOWAGE OF EMERGENCY OR AIRPLANE-SUPPLIED EQUIPMENT

Fire protection features	Applicability of fire protection requirements by interior volume		
	Less than 25 cubic feet	25 cubic feet to less than 57 cubic feet	57 cubic feet to 200 cubic feet
Compliant Materials of Construction ¹ .	Yes	Yes	Yes.
Smoke or Fire Detectors ²	No	Yes	Yes.
Liner ³	No	Conditional	Yes.
Fire Location Detector ⁴	No	Yes	Yes.

¹ Compliant Materials of Construction: The material used in constructing each enclosed stowage compartment must at least be fire resistant and must meet the flammability standards established for interior components (i.e., 14 CFR part 25 Appendix F, Parts I, IV, and V) per the requirements of § 25.853. For compartments less than 25 ft.³ in interior volume, the design must ensure the ability to contain a fire likely to occur within the compartment under normal use.

² Smoke or Fire Detectors: Enclosed stowage compartments equal to or exceeding 25 ft.³ in interior volume must be provided with a smoke- or fire-detection system to ensure that a fire can be detected within a one-minute detection time. Flight tests must be conducted to show compliance with this requirement. Each system (or systems) must provide:

(a) A visual indication in the flight deck within one minute after the start of a fire.

(b) An aural warning in the OFCR compartment.

(c) A warning in the main passenger cabin. This warning must be readily detectable by a flight attendant, taking into consideration the locations of flight attendants throughout the main passenger compartment during various phases of flight.

³ Liner: If material used in constructing the stowage compartment can be shown to meet the flammability requirements of a liner for a Class B cargo compartment (i.e., § 25.855 at Amendment 25-116, and Appendix F, part I, paragraph (a)(2)(ii)), then no liner would be required for enclosed stowage compartments equal to or greater than 25 ft.³ but less than 57 ft.³ in interior volume. For all enclosed stowage compartments equal to or greater than 57 ft.³ in interior volume but less than or equal to 200 ft.³, a liner must be provided that meets the requirements of § 25.855 for a Class B cargo compartment.

⁴ Fire Location Detector: If an OFCR compartment has enclosed stowage compartments exceeding 25 ft.³ interior volume that are located separately from the other stowage compartments (located, for example, away from one central location, such as the entry to the OFCR compartment or a common area within the OFCR compartment, where the other stowage compartments are), that OFCR compartment would require additional fire-protection features and/or devices to assist the firefighter in determining the location of a fire.

Issued in Renton, Washington, on February 15, 2011.

K.C. Yanamura,

Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2011-4228 Filed 2-24-11; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 27

[Docket No. SW025; Special Conditions No. 27-025-SC]

Special Conditions: Bell Helicopter Textron Canada Limited Model 407 Helicopter, Installation of a Hoh Aeronautics, Inc. Autopilot/Stabilization Augmentation System (AP/SAS)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the modification of the Bell Helicopter Textron Canada Limited (Bell) model 407 helicopter. This model

helicopter will have novel or unusual design features when modified by installing the Hoh Aeronautics, Inc. (Hoh) complex Autopilot/Stabilization Augmentation System (AP/SAS) that has potential failure conditions with more severe adverse consequences than those envisioned by the existing applicable airworthiness regulations. These special conditions contain the added safety standards the Administrator considers necessary to ensure the failures and their effects are sufficiently analyzed and contained.

DATES: The effective date of these special conditions is February 14, 2011. We must receive your comments by April 26, 2011.

ADDRESSES: You must mail your comments to: Federal Aviation Administration, Rotorcraft Directorate, Attn: Rules Docket (ASW-111), Docket No. SW025, 2601 Meacham Blvd., Fort Worth, Texas 76137. You may deliver your comments to the Rotorcraft Directorate at the indicated address. You must mark your comments: Docket No. SW025. You can inspect comments in the Rules Docket weekdays, except Federal holidays, between 8:30 a.m. and 4 p.m., in the Rotorcraft Directorate.

FOR FURTHER INFORMATION CONTACT:

Mark Wiley, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Policy Group (ASW-111), 2601 Meacham Blvd., Fort Worth, Texas 76137; telephone (817) 222-5134; facsimile (817) 222-5961.

SUPPLEMENTARY INFORMATION:

The FAA has determined that notice and opportunity for prior public comment hereon are impracticable because these procedures would significantly delay issuance of the design approval and thus delivery of the affected aircraft. In addition, the substance of these special conditions has been subject to the public comment process previously with no substantive comments received. The FAA therefore finds that good cause exists for making these special conditions effective on issuance.

Comments Invited

While we did not precede this with a notice of proposed special conditions, we invite interested people to take part in this action by sending written comments, data, or views. The most helpful comments reference a specific portion of the special conditions, explain the reason for any

recommended change, and include supporting data.

We will file in the special conditions docket all comments we receive, as well as a report summarizing each substantive public contact with FAA personnel about these special conditions. You can inspect the docket before and after the comment closing date. If you wish to review the docket in person, go to the address in the **ADDRESSES** section of this document between 8:30 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

We will consider all comments we receive by the closing date for comments. We will consider comments filed late if it is possible to do so without incurring expense or delay. We may change these special conditions based on the comments we receive.

If you want us to let you know we received your mailed comments on these special conditions, send us a pre-addressed, stamped postcard on which the docket number appears. We will stamp the date on the postcard and mail it back to you.

Background

On July 16, 2009, Hoh submitted an application to the FAA's Los Angeles Aircraft Certification Office (LA ACO) for a supplemental type certification (STC) to install an AP/SAS on a Bell model 407 helicopter. The Bell model 407 helicopter is a 14 CFR part 27 Normal category, single turbine engine, conventional helicopter designed for civil operation. This helicopter model is capable of carrying six passengers with one pilot, and has a maximum gross weight of approximately 5,250 pounds, depending on the configuration. The major design features include a 4-blade, soft-in-plane main rotor, a 2-blade anti-torque tail rotor, a skid landing gear, and a visual flight rule (VFR) basic avionics configuration. Hoh proposes to modify a model 407 Bell helicopter by installing a two-axis AP/SAS.

Type Certification Basis

Under 14 CFR 21.115, Hoh must show that the Bell model 407 helicopter, as modified by the installed AP/SAS, continues to meet the 14 CFR 21.101 standards. The baseline of the certification basis for the unmodified Bell model 407 helicopter is listed in Type Certificate Number H2SW. Additionally, compliance must be shown to any applicable equivalent level of safety findings, exemptions, and special conditions, prescribed by the Administrator as part of the certification basis.

If the Administrator finds the applicable airworthiness regulations

(that is, 14 CFR part 27), as they pertain to this STC, do not contain adequate or appropriate safety standards for the Bell model 407 helicopter because of a novel or unusual design feature, special conditions are prescribed under § 21.101(d).

In addition to the applicable airworthiness regulations and special conditions, Hoh must show compliance of the AP/SAS STC-altered Bell model 407 helicopter with the noise certification requirements of 14 CFR part 36.

The FAA issues special conditions, as defined in § 11.19, under § 11.38 and they become part of the type certification basis under § 21.101.

Novel or Unusual Design Features

The Hoh AP/SAS incorporates novel or unusual design features, for installation in a Bell model 407 helicopter, Type Certificate Number H2SW. This AP/SAS performs non-critical control functions, since this model helicopter has been certificated to meet the applicable requirements independent of this system. However, the possible failure conditions for this system, and their effect on continued safe flight and landing of the helicopter, are more severe than those envisioned by the present rules.

Discussion

The effect on safety is not adequately covered under § 27.1309 for the application of new technology and new application of standard technology. Specifically, the present provisions of § 27.1309(c) do not adequately address the safety requirements for systems whose failures could result in catastrophic or hazardous/severe-major failure conditions, or for complex systems whose failures could result in major failure conditions.

To comply with the provisions of the special conditions, we require that Hoh provide the FAA with a systems safety assessment (SSA) for the final AP/SAS installation configuration that will adequately address the safety objectives established by the functional hazard assessment (FHA) and the preliminary system safety assessment (PSSA), including the fault tree analysis (FTA). This must ensure that all failure conditions and their resulting effects are adequately addressed for the installed AP/SAS. The SSA process, FHA, PSSA, and FTA are all parts of the overall safety assessment (SA) process discussed in FAA Advisory Circular (AC) 27-1B (Certification of Normal Category Rotorcraft) and Society of Automotive Engineers (SAE) document Aerospace Recommended Practice

(ARP) 4761 (Guidelines and Methods for Conducting the Safety Assessment Process on Civil Airborne Systems and Equipment).

These special conditions require that the AP/SAS installed on a Bell model 407 helicopter meet the requirements to adequately address the failure effects identified by the FHA, and subsequently verified by the SSA, within the defined design integrity requirements.

Applicability

These special conditions are applicable to the Hoh AP/SAS installed as an STC approval, in Bell model 407 helicopter, Type Certificate Number H2SW.

Conclusion

This action affects only certain novel or unusual design features for a Hoh AP/SAS STC installed on one model helicopter. It is not a rule of general applicability and affects only the applicant who applied to the FAA for approval of these features on the helicopter.

The substance of these special conditions has been subjected to the notice and comment period previously and has been derived without substantive change from those previously issued. It is unlikely that prior public comment would result in a significant change from the substance contained herein. Therefore, because a delay would significantly affect the certification of the helicopter, which is imminent, the FAA has determined that prior public notice and comment are unnecessary and impracticable, and good cause exists for adopting these special conditions upon issuance. The FAA is requesting comments to allow interested persons to submit views that may not have been submitted in response to the prior opportunities for comment.

List of Subjects in 14 CFR Part 27

Aircraft, Aviation safety.

The authority citation for these special conditions is as follows:

Authority: 42 U.S.C. 7572, 49 U.S.C. 106(g), 40105, 40113, 44701–44702, 44704, 44709, 44711, 44713, 44715, 45303.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the Hoh Aeronautics, Inc. (Hoh) supplemental type certificate basis for the installation of an autopilot/stability augmentation system (AP/SAS) on the Bell Helicopter Textron Canada Limited (Bell) model

407 helicopter, Type Certificate Number H2SW.

The AP/SAS must be designed and installed so that the failure conditions identified in the Functional Hazard Assessment and verified by the System Safety Assessment, after design completion, are adequately addressed in accordance with the “failure condition categories” and “requirements” sections (including the system design integrity, design environmental, and test and analysis requirements) of these special conditions.

Failure Condition Categories Failure conditions are classified, according to the severity of their effects on the rotorcraft, into one of the following categories:

1. **No Effect**—Failure conditions that would have no effect on safety; for example, failure conditions that would not affect the operational capability of the rotorcraft or increase crew workload; however, could result in an inconvenience to the occupants, excluding the flight crew.

2. **Minor**—Failure conditions which would not significantly reduce rotorcraft safety, and which would involve crew actions that are well within their capabilities. Minor failure conditions would include, for example, a slight reduction in safety margins or functional capabilities, a slight increase in crew workload, such as, routine flight plan changes, or result in some physical discomfort to occupants.

3. **Major**—Failure conditions which would reduce the capability of the rotorcraft or the ability of the crew to cope with adverse operating conditions to the extent that there would be, for example, a significant reduction in safety margins or functional capabilities, a significant increase in crew workload or result in impairing crew efficiency, physical distress to occupants, including injuries, or physical discomfort to the flight crew.

4. **Hazardous/Severe-Major**—Failure conditions which would reduce the capability of the rotorcraft or the ability of the crew to cope with adverse operating conditions to the extent that there would be:

- A large reduction in safety margins or functional capabilities;
- Physical distress or excessive workload that would impair the flight crew's ability to the extent that they could not be relied on to perform their tasks accurately or completely; or,
- Possible serious or fatal injury to a passenger or a cabin crewmember, excluding the flight crew.

Note 1: “Hazardous/severe-major” failure conditions can include events that are

manageable by the crew by the use of proper procedures, which, if not implemented correctly or in a timely manner, may result in a catastrophic event.

5. **Catastrophic**—Failure conditions which would result in multiple fatalities to occupants, fatalities or incapacitation to the flight crew, or result in loss of the rotorcraft.

The present §§ 27.1309(b) and (c) regulations do not adequately address the safety requirements for systems whose failures could result in “catastrophic” or “hazardous/severe-major” failure conditions, or for complex systems whose failures could result in “major” failure conditions. The current regulations are inadequate because when §§ 27.1309(b) and (c) were promulgated, it was not envisioned that this type of rotorcraft would use systems that are complex or whose failure could result in “catastrophic” or “hazardous/severe-major” effects on the rotorcraft. This is particularly true with the application of new technology, new application of standard technology, or other applications not envisioned by the rule that affect safety.

Hoh must provide the FAA with a systems safety assessment (SSA) for the final AP/SAS installation configuration that will adequately address the safety objectives established by the functional hazard assessment (FHA) and the preliminary system safety assessment (PSSA), including the fault tree analysis (FTA). This will show that all failure conditions and their resulting effects are adequately addressed for the installed AP/SAS.

Note 2: The SSA process, FHA, PSSA, and FTA are all parts of the overall safety assessment (SA) process discussed in FAA Advisory Circular (AC) 27-1B (Certification of Normal Category Rotorcraft) and Society of Automotive Engineers (SAE) document Aerospace Recommended Practice (ARP) 4761 (Guidelines and Methods for Conducting the Safety Assessment Process on Civil Airborne Systems and Equipment).

Requirements

Hoh must comply with the existing requirements of § 27.1309 for all applicable design and operational aspects of the AP/SAS with the failure condition categories of “no effect,” and “minor,” and for non-complex systems whose failure condition category is classified as “major.” Hoh must comply with the requirements of these special conditions for all applicable design and operational aspects of the AP/SAS with the failure condition categories of “catastrophic” and “hazardous severe/major,” and for complex systems whose

failure condition category is classified as “major.”

A complex system is a system whose operations, failure conditions, or failure effects are difficult to comprehend without the aid of analytical methods (for example, FTA, Failure Modes and Effect Analysis, FHA).

System Design Integrity Requirements

Each of the failure condition categories defined in these special conditions relate to the corresponding aircraft system integrity requirements. The system design integrity requirements, for the Hoh AP/SAS, as they relate to the allowed probability of occurrence for each failure condition category, and the proposed software design assurance level, are as follows:

- **“Major”**—For systems with “major” failure conditions, failures resulting in these major effects must be shown to be remote, a probability of occurrence on the order of between 1×10^{-5} to 1×10^{-7} failures/hour, and associated software must be developed to the RTCA/DO-178B (Software Considerations in Airborne Systems And Equipment Certification) Level C software design assurance level.

- **“Hazardous/Severe-Major”**—For systems with “hazardous/severe-major” failure conditions, failures resulting in these hazardous/severe-major effects must be shown to be extremely remote, a probability of occurrence on the order of between 1×10^{-7} to 1×10^{-9} failures/hour, and associated software must be developed to the RTCA/DO-178B (Software Considerations in Airborne Systems and Equipment Certification) Level B software assurance level.

- **“Catastrophic”**—For systems with “catastrophic” failure conditions, failures resulting in these catastrophic effects must be shown to be extremely improbable, a probability of occurrence on the order of 1×10^{-9} failures/hour or less, and associated software must be developed to the RTCA/DO-178B (Software Considerations in Airborne Systems and Equipment Certification) Level A design assurance level.

System Design Environmental Requirements

The AP/SAS system equipment must be qualified to the appropriate environmental level per RTCA document DO-160F (Environmental Conditions and Test Procedures for Airborne Equipment), for all relevant aspects. This is to show that the AP/SAS system performs its intended function under any foreseeable operating condition, which includes the expected environment in which the AP/

SAS is intended to operate. Some of the main considerations for environmental concerns are installation locations and the resulting exposure to environmental conditions for the AP/SAS system equipment, including considerations for other equipment that may be affected environmentally by the AP/SAS equipment installation. The level of environmental qualification must be related to the severity of the considered failure conditions and effects on the rotorcraft.

Test & Analysis Requirements

Compliance with the requirements of these special conditions may be shown by a variety of methods, which typically consist of analysis, flight tests, ground tests, and simulation, as a minimum. Compliance methodology is related to the associated failure condition category. If the AP/SAS is a complex system, compliance with the requirements for failure conditions classified as "major" may be shown by analysis, in combination with appropriate testing to validate the analysis. Compliance with the requirements for failure conditions classified as "hazardous/severe-major" may be shown by flight-testing in combination with analysis and simulation, and the appropriate testing to validate the analysis. Flight tests may be limited for "hazardous/severe-major" failure conditions and effects due to safety considerations. Compliance with the requirements for failure conditions classified as "catastrophic" may be shown by analysis, and appropriate testing in combination with simulation to validate the analysis. Very limited flight tests in combination with simulation are used as a part of a showing of compliance for "catastrophic" failure conditions. Flight tests are performed only in circumstances that use operational variations, or extrapolations from other flight performance aspects to address flight safety.

These special conditions require that the Hoh AP/SAS system installed on a Bell model 407 helicopter, Type Certificate Number H2SW, meet these requirements to adequately address the failure effects identified by the FHA, and subsequently verified by the SSA, within the defined system design integrity requirements.

Issued in Fort Worth, Texas, on February 14, 2011.

Kimberly K. Smith,

Manager, Rotorcraft Directorate, Aircraft Certification Service.

[FR Doc. 2011-4229 Filed 2-24-11; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

18 CFR Part 35

[Docket No. RM10-13-001; Order No. 741-A]

Credit Reforms in Organized Wholesale Electric Markets

AGENCY: Federal Energy Regulatory Commission, DOE.

ACTION: Final rule; order on rehearing.

SUMMARY: In this order on rehearing, the Commission reaffirms in part its determinations in *Credit Reforms in Organized Wholesale Electric Markets*, Order No. 741, to amend its regulations to improve the management of risk and use of credit in the organized wholesale electric markets. This order denies in part and grants in part rehearing and clarification regarding certain provisions of Order No. 741.

DATES: Effective Date: This order will become effective on March 28, 2011.

FOR FURTHER INFORMATION CONTACT:

Christina Hayes (Legal Information), Office of the General Counsel, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, (202) 502-6194.

Lawrence Greenfield (Legal Information), Office of the General Counsel, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, (202) 502-6415.

Scott Miller (Technical Information), Office of Energy Policy and Innovation, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426, (202) 502-8456.

SUPPLEMENTARY INFORMATION:

Before Commissioners: Jon Wellenhoff, Chairman; Marc Spitzer, Philip D. Moeller, John R. Norris, and Cheryl A. LaFleur.

Order on Rehearing

1. In Order No. 741, the Commission adopted reforms to credit policies used in organized wholesale electric power markets.¹ In the instant order, the Commission addresses requests for rehearing of Order No. 741. The Commission grants rehearing as to its establishment of a \$100 million corporate family cap on unsecured credit and extends the deadline for complying with the requirement

regarding the ability to offset market obligations to September 30, 2011, with the relevant tariff revisions to take effect January 1, 2012, but denies rehearing in all other respects, as discussed below.

I. Background

2. As noted in Order No. 741, the Commission must ensure that all rates charged for the transmission or sale of electric energy in interstate commerce are just, reasonable, and not unduly discriminatory or preferential,² and clear and consistent credit policies are an important element in ensuring rates that are just, reasonable, and not unduly discriminatory or preferential. The management of risk and credit requires a balance between protecting the markets from costly defaults³ and ensuring that barriers to entry for market participants are not prohibitive.

3. The Commission provided guidance to the industry on appropriate credit policies in Order No. 888⁴ and the *Policy Statement on Electric Creditworthiness*.⁵ Credit policies among the organized wholesale electric markets, however, developed in an incremental manner leading to varying credit practices. Because these variable practices posed a heightened risk to the stability of the organized wholesale electric markets, and especially in light of recent events in the financial markets, the Commission proposed that the different credit practices among the organized wholesale electric markets be strengthened.

4. In Order No. 741, the Commission directed the regional transmission organizations (RTO) and independent system operators (ISO) to revise their tariffs to reflect the following reforms: implementation of shortened settlement timeframes, restrictions on the use of unsecured credit, elimination of unsecured credit in all financial transmission rights (FTR) or equivalent markets,⁶ adoption of steps to address

² 16 U.S.C. 824d, 824e.

³ In organized wholesale electric markets, defaults not supported by collateral are typically socialized among all other market participants.

⁴ *Promoting Wholesale Competition Through Open Access Non-Discriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, 61 FR 21540 (May 10, 1996), FERC Stats. & Regs. ¶ 31,036, at 31,937 (1996) (*pro forma* OATT, section 11 (Creditworthiness)), *order on reh'g*, Order No. 888-A, 62 FR 12274 (Mar. 14, 1997), FERC Stats. & Regs. ¶ 31,048 (1997), *order on reh'g*, Order No. 888-B, 81 FERC ¶ 61,248 (1997), *order on reh'g*, Order No. 888-C, 82 FERC ¶ 61,046 (1998), *aff'd in relevant part sub nom. Transmission Access Policy Study Group v. FERC*, 225 F.3d 667 (D.C. Cir. 2000), *aff'd sub nom. New York v. FERC*, 535 U.S. 1 (2002).

⁵ 109 FERC ¶ 61,186 (2004) (*Policy Statement*).

⁶ References to FTR markets in this order, as in Order No. 741, also include the Transmission

¹ *Credit Reforms in Organized Wholesale Electric Markets*, Order No. 741, 75 FR 65942 (Oct. 21, 2010), FERC Stats. & Regs. ¶ 31,317 (2010) (Order No. 741).