§ 72.2 Restrictions on movement of cattle.

* * * * *

§ 72.13 [Amended]

■ 5. Section 72.13 is amended as follows:

■ a. In paragraph (b) introductory text, by removing the word ''Department'' and by adding the words ''U.S. Department of Agriculture'' in its place.

■ b. By removing paragraphs (b)(1), (b)(3), and (b)(4), by redesignating paragraph (b)(2) as paragraph (b)(1), and by adding and reserving a new paragraph (b)(2).

Done in Washington, DC, this 4th day of February 2013.

Kevin Shea,

Acting Administrator, Animal and Plant Health Inspection Service.

[FR Doc. 2013–02784 Filed 2–6–13; 8:45 am]

BILLING CODE 3410–34–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 25

[Docket No. FAA–2012–1200; Special Conditions No. 25–475–SC]

Special Conditions: Embraer S.A., Model EMB–550 Airplane; Hydrophobic Coatings in Lieu of Windshield Wipers

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions.

SUMMARY: These special conditions are issued for the Embraer S.A., Model EMB–550 airplane. This airplane will have a novel or unusual design feature(s) associated with hydrophobic coatings. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. These special conditions contain the additional safety standards that the Administrator considers necessary to establish a level of safety equivalent to that established by the existing airworthiness standards.

DATES: *Effective Date:* March 11, 2013.

FOR FURTHER INFORMATION CONTACT: Paul Bernado, FAA, Airplane and Flight Crew Interface Branch, ANM–111, Transport Airplane Directorate, Aircraft Certification Service, 1601 Lind Avenue SW., Renton, Washington, 98057–3356; telephone 425–227–1209; facsimile 425–227–1320.

SUPPLEMENTARY INFORMATION:

Background

On May 14, 2009, Embraer S.A. applied for a type certificate for their new Model EMB–550 airplane. The Model EMB–550 airplane is the first of a new family of jet airplanes designed for corporate flight, fractional, charter, and private owner operations. The aircraft has a conventional configuration with low wing and T-tail empennage. The primary structure is metal with composite empennage and control surfaces. The Model EMB–550 airplane is designed for 8 passengers, with a maximum of 12 passengers. It is equipped with two Honeywell HTF7500–E medium bypass ratio turbofan engines mounted on aft fuselage pylons. Each engine produces approximately 6,540 pounds of thrust for normal takeoff. The primary flight controls consist of hydraulically powered fly-by-wire elevators, aileron and rudder, controlled by the pilot or copilot sidestick.

The Model EMB–550 airplane will use a hydrophobic coating on the windshield in lieu of windshield wipers. The existing regulation, Title 14, Code of Federal Regulations (14 CFR) 25.773(b)(1), requires a means to maintain a sufficiently clear portion of the windshield for both pilots to have sufficiently extensive view along the flight path during precipitation conditions in heavy rain at speeds up to 1.5 V_{SR1}. The heavy rain and high speed conditions in the rule do not necessarily represent the limiting condition for this new technology. For example, airflow over the windshield may be necessary to remove moisture, but may not be adequate to maintain a sufficiently clear area of the windshield in low speed flight or during surface operations. Alternatively, airflow over the windshield may be disturbed during critical times such as the approach to land, where the airplane is at higher-than-normal pitch angle.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Embraer S.A. must show that the Model EMB–550 airplane meets the applicable provisions of part 25, as amended by Amendments 25–1 through 25–127 thereto.

If the Administrator finds that the applicable airworthiness regulations (i.e., 14 CFR part 25) do not contain adequate or appropriate safety standards for the Model EMB–550 airplane because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

Special conditions are initially applicable to the model for which they are issued. Should the type certificate for that model be amended later to include any other model that incorporates the same or similar novel or unusual design feature, the special conditions would also apply to the other model under § 21.101.

In addition to the applicable airworthiness regulations and special conditions, the Embraer S.A. Model EMB–550 airplane must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34 and the noise certification requirements of 14 CFR part 36 and the FAA must issue a finding of regulatory adequacy under § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

The FAA issues special conditions, as defined in 14 CFR 11.19, in accordance with § 11.38, and they become part of the type-certification basis under § 21.17(a)(2).

Novel or Unusual Design Features

The Embraer S.A. Model EMB–550 airplane will incorporate the following novel or unusual design features: The Model EMB–550 airplane has a hydrophobic coating on the windshield to provide adequate pilot compartment view in precipitation in lieu of windshield wipers.

Discussion

14 CFR 25.773(b)(1) requires a means to maintain a clear portion of the windshield for both pilots to have a sufficiently extensive view along the flight path during precipitation conditions. The regulations require this means to maintain such an area during precipitation in heavy rain at speeds up to 1.5 V_{SR1}. The requirement that the means to maintain a clear area of forward vision must function at high speeds and high precipitation rates is based on the use of windshield wipers as the means to maintain an adequate area of clear vision in precipitation conditions. The requirement in 14 CFR 121.313(b), and in 14 CFR 125.213(b), to provide ''a windshield wiper or equivalent for each pilot station'' has remained unchanged since at least 1953.

The effectiveness of windshield wipers to maintain an area of clear vision normally degrades as airspeed and precipitation rates increase. It is assumed that because high speeds and high precipitation rates represent limiting conditions for windshield wipers, they will also be effective at lower speeds and precipitation levels. Accordingly, § 25.773(b)(1)(i) does not require maintenance of a clear area of forward vision at lower speeds or lower precipitation rates.

A forced airflow blown directly over the windshield has also been used to maintain an area of clear vision in precipitation. The limiting conditions

for this technology are comparable to those for windshield wipers. Accordingly, introduction of this technology did not present a need for special conditions to maintain the level of safety embodied in the existing regulations.

Hydrophobic windshield coatings may depend to some degree on airflow directly over the windshield to maintain a clear vision area. The heavy rain and high-speed conditions specified in the current rule do not necessarily represent the limiting conditions for this new technology. For example, airflow over the windshield, which may be necessary to remove moisture from the windshield, may not be adequate to maintain a sufficiently clear area of the windshield in low speed flight or during ground operations. Alternatively, airflow over the windshield may be disturbed during such critical times as the approach to land, where the airplane is at a higher than normal pitch attitude. In these cases, areas of airflow disturbance or separation on the windshield could cause failure to maintain a clear vision area on the windshield.

In addition to potentially depending on airflow to function effectively, hydrophobic coatings may also be dependent on water droplet size for effective precipitation removal. For example, precipitation in the form of a light mist may not be sufficient for the coating's properties to result in maintaining a clear area of vision.

In summary, the current regulations identify speed and precipitation rate requirements that represent limiting conditions for windshield wipers and blowers, but not for hydrophobic coatings, so it is necessary to issue special conditions to maintain the level of safety represented by the current regulations.

These special conditions provide an appropriate safety standard for the hydrophobic coating technology as the means to maintain a clear area of vision by requiring it to be effective at low speeds and precipitation rates as well as the higher speeds and precipitation rates identified in the current regulation.

Discussion of Comments

Notice of proposed special conditions No. 25–12–07–SC for the Embraer S.A. Model EMB–550 airplanes was published in the **Federal Register** on November 9, 2012, (77 FR 67308). No comments were received, and the special conditions are adopted as proposed.

Applicability

As discussed above, these special conditions are applicable to the Embraer S.A. Model EMB–550 airplane. Should Embraer S.A. apply at a later date for a change to the type certificate to include another model incorporating the same novel or unusual design feature, the special conditions would apply to that model as well.

Conclusion

This action affects only certain novel or unusual design features on one model of airplanes. It is not a rule of general applicability.

List of Subjects in 14 CFR Part 25

Aircraft, Aviation safety, Reporting and recordkeeping requirements.

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701, 44702, 44704.

The Special Conditions

Accordingly, pursuant to the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Embraer S.A. Model EMB–550 airplanes.

Hydrophobic Coatings in Lieu of Windshield Wipers

The airplane must have a means to maintain a clear portion of the windshield, during precipitation conditions, enough for both pilots to have a sufficiently extensive view along the ground or flight path in normal taxi and flight attitudes of the airplane. This means must be designed to function, without continuous attention on the part of the flightcrew, in conditions from light misting precipitation to heavy rain at speeds from fully stopped in still air, to 1.5 V_{SR1} with lift and drag devices retracted.

Issued in Renton, Washington, on February 4, 2013.

Ali Bahrami,

Manager, Transport Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2013–02740 Filed 2–6–13; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 71

[Docket No. FAA–2012–0952; Airspace Docket No. 12–AAL–6]

Establishment of Class E Airspace; Kasigluk, AK

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: This action establishes Class E airspace at Kasigluk, AK, to accommodate aircraft using Area Navigation (RNAV) Global Positioning System (GPS) standard instrument approach procedures at Kasigluk Airport. This action also makes a minor adjustment to the geographic coordinates of the airport. The FAA is taking this action to enhance the safety and management of aircraft operations at the airport.

DATES: Effective date, 0901 UTC, May 2, 2013. The Director of the Federal Register approves this incorporation by reference action under 1 CFR part 51, subject to the annual revision of FAA Order 7400.9 and publication of conforming amendments.

FOR FURTHER INFORMATION CONTACT: Richard Roberts, Federal Aviation Administration, Operations Support Group, Western Service Center, 1601 Lind Avenue SW., Renton, WA 98057; telephone (425) 203–4517.

SUPPLEMENTARY INFORMATION:

History

On October 4, 2012, the FAA published in the **Federal Register** a notice of proposed rulemaking to modify controlled airspace at Kasigluk, AK (77 FR 60660). Interested parties were invited to participate in this rulemaking effort by submitting written comments on the proposal to the FAA. No comments were received. Subsequent to publication, it was noted that the geographic coordinates were not rounded up. This action corrects that error.

Class E airspace designations are published in paragraph 6005, of FAA Order 7400.9W dated August 8, 2012, and effective September 15, 2012, which is incorporated by reference in 14 CFR 71.1. The Class E airspace designations listed in this document will be published subsequently in that Order.