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 Pilatus Aircraft Ltd. PC–24 airplanes.

1. Pressure Fueling System

For pressure fueling systems, in addition to § 23.979, the following applies:

The airplane defueling system—not including fuel tanks and fuel tank vents—must withstand an ultimate load that is 2.0 times the load arising from the maximum permissible defueling pressure—positive or negative—at the airplane fueling connection.

Issued in Kansas City, Missouri, on July 6, 2017.

Kelly Broadway,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2017–14937 Filed 7–14–17; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. FAA–2017–0702; Special Conditions No. 23–282–SC]

Special Conditions: Pilatus Aircraft Ltd., PC–24; Electronic Engine Control (EEC)

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the Pilatus Aircraft Ltd. PC–24 airplane. This airplane will have a novel or unusual design features associated with installation of an electronic engine control. 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: These special conditions are effective July 17, 2017 and are applicable beginning July 6, 2017.

ADDRESSES: Send comments identified by docket number FAA–2017–0702 using any of the following methods:

☐ *Federal eRegulations Portal:* Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.

☐ *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.

☐ *Hand Delivery of Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

☐ *Fax:* Fax comments to Docket Operations at 202–493–2251.

Privacy: The FAA will post all comments it receives, without change, to *http://regulations.gov,* including any personal information the commenter provides. Using the search function of the docket Web site, anyone can find and read the electronic form of all comments received into any FAA docket, including the name of the individual sending the comment (or signing the comment for an association, business, labor union, etc.). DOT's complete Privacy Act Statement can be found in the **Federal Register** published on April 11, 2000 (65 FR 19477–19478), as well as at *http://DocketsInfo.dot.gov.*

Docket: Background documents or comments received may be read at *http://www.regulations.gov* at any time. Follow the online instructions for accessing the docket or go to the Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Jeff Pretz, ACE–111, Federal Aviation Administration, Small Airplane Directorate, Aircraft Certification Service, 901 Locust Street, Kansas City, MO 64106; telephone (816) 329–3239; facsimile (816) 329–4090.

SUPPLEMENTARY INFORMATION: The FAA has determined, in accordance with 5 U.S.C. 553(b)(3)(B) and 553(d)(3), that notice and opportunity for prior public comment hereon are unnecessary because the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. The FAA therefore finds good cause exists for making these special conditions effective upon issuance.

Special condition No.[2]	Company/airplane model
23–264–SC	Honda Aircraft Company/ Model HA–420.
23–267–SC	Cirrus Design Corporation/ Model SF50.
23–268–SC	Korean Aircraft Industries/ Model K–100.

Comments Invited

We invite interested people to take part in this rulemaking 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 ask that you send us two copies of written comments.

We will consider all comments we receive on or before 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.

Background

On July 9th 2012, Pilatus Aircraft Ltd. applied for a type certificate for their new PC–24 airplane. The PC–24 is an aluminum pressurized low-wing business jet with a T-tail configuration and retractable undercarriage designed to meet the commuter category requirements of part 23. Two Williams International FJ44–4A Turbofan engines rated at 3,400 pounds (lbs.) of take-off thrust, situated in nacelles on each side of the rear fuselage power the PC–24. The PC–24 will have a Maximum Take-off Weight (MTOW) of 17,200 pounds (7,802 kilograms). It has a maximum seating capacity of up to ten passengers and one or two pilots. The airplane will be certificated for day and night Visual Flight Rules and Instrument Flight Rules and approval for flight into known icing.

The PC–24 airplane's two Williams International FJ44–4A turbofan engines each use an electronic engine control system (EEC)—commonly referred to as a Full Authority Digital Engine Control (FADEC)—instead of a traditional mechanical control system. Even though the engine control system will be certificated as part of the engine, the installation of an engine with an electronic control system requires evaluation due to critical environmental effects and possible effects on or by other airplane systems. Examples of critical environmental effects include—

- Indirect effects of lightning;
- Radio interference with other airplane electronic systems; and

[2] *See http://rgl.faa.gov/* to view the listed special conditions.

• Shared engine, airplane data, and power sources.

The regulatory requirements in part 23 for evaluating the installation of complex systems—including electronic systems and critical environmental effects—are contained in §§ 23.1306, 23.1308, and 23.1309. However, when § 23.1309 was published, the use of electronic control systems for engines was not envisioned. The integral nature of these systems makes it necessary to properly evaluate the airplane functions included in the EEC and ensure the installation does not degrade the EEC reliability, both of which are approved under 14 CFR part 33. Sections 23.1306(a) and 23.1308(a) apply to the EEC to ensure it remains equivalent to a mechanical system, which is not generally susceptible to the HIRF and lightning environments.

In some cases, the airplane—in which the engine is being installed—will determine a higher classification than the engine controls are certificated for; requiring the EEC systems be analyzed at a higher classification. As of November 2005, EEC special conditions mandated the § 23.1309 classification for loss of EEC control as catastrophic for any airplane. This is not to imply an engine failure is classified as catastrophic, but that the EEC must provide an equivalent reliability to mechanical engine controls. In addition, §§ 23.1141(e) and 25.901(b)(2) are applied to provide the fault tolerant design requirements of turbine engine mechanical controls to the EEC and ensure adequate EEC inspection and maintenance intervals.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Pilatus Aircraft Ltd., must show that the PC–24 meets the applicable provisions of part 23, as amended by amendments 23–1 through 23–62 thereto.

If the Administrator finds that the applicable airworthiness regulations (*i.e.,* 14 CFR part 23) do not contain adequate or appropriate safety standards for the PC–24 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the PC–24 must comply with the fuel vent and exhaust emission requirements of 14 CFR part 34, the noise certification requirements of 14 CFR part 36, and the FAA must issue a finding of regulatory adequacy pursuant to section 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

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

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 novel or unusual design feature, the FAA would apply these special conditions to the other models under § 21.101.

Novel or Unusual Design Features

The PC–24 will incorporate the following novel or unusual design features:

Electronic Engine Control System.

Discussion

As discussed in the ''Background'' section, the PC–24 will use an EEC system instead of a traditional mechanical control system, which is a novel design for this type of airplane. The applicable airworthiness regulations do not contain adequate or appropriate safety standards for this design feature. Mandating a structured assessment to determine potential installation issues mitigates the concerns that the addition of an electronic engine control may produce failure conditions not previously considered.

Applicability

As discussed above, these special conditions are applicable to the PC–24. Should Pilatus Aircraft Ltd. apply at a later date for a change to the type certificate to include another model on the same type certificate incorporating the same novel or unusual design feature, the FAA would apply these special conditions 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 and it affects only the applicant who applied to the FAA for approval of these features on the airplane.

The substance of these special conditions has been subjected to the notice and comments period in several prior instances—identified above—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, notice and opportunity for prior public comments hereon are unnecessary and the FAA finds good cause, in accordance with 5 U.S.C. 553(b)(3)(B) and 553(d)(3), making these special conditions effective 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 described above.

List of Subjects in 14 CFR Part 23

Aircraft, Aviation safety, Signs and symbols.

Citation

The authority citation for these special conditions is as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113 and 44701; 14 CFR 21.16 and 21.17; and 14 CFR 11.38 and 11.19.

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 Pilatus Aircraft Ltd. PC–24 airplanes.

1. Electronic Engine Control.

(a) For electronic engine control system installations, it must be established that no single failure or malfunction or probable combinations of failures of EEC system components will have an effect on the system—as installed in the airplane—that causes the loss-of-thrust-control (LOTC) probability of the system to exceed those allowed in part 33 certification.

(b) Electronic engine control system installations must be evaluated for environmental and atmospheric conditions, including lightning. The EEC system lightning and HIRF effects that result in LOTC should be considered catastrophic.

(c) The components of the installation must be constructed, arranged, and installed to ensure their continued safe operation between normal inspections or overhauls.

(d) Functions incorporated into any electronic engine control that make it part of any equipment, system, or installation whose functions are beyond that of basic engine control, and which may also introduce system failures and malfunctions, are not exempt from § 23.1309 and must be shown to meet part 23 levels of safety as derived from § 23.1309. Part 33 certification data—if applicable—may be used to show compliance with any part 23 requirements. If part 33 data is to be used to substantiate compliance with part 23 requirements, then the applicant must provide this data to show compliance.

Note: The term ''probable'' in the context of ''probable combination of failures'' does not have the same meaning as in AC 23.1309–1E, ''System Safety Analysis and

Assessment for Part 23 Airplanes.'' The term ''probable'' in ''probable combination of failures'' means ''foreseeable,'' or—in AC 23.1309–1E terms—''not extremely improbable.''

Issued in Kansas City, Missouri on July 6, 2017.

Kelly Broadway,

Acting Manager, Small Airplane Directorate, Aircraft Certification Service.

[FR Doc. 2017–14936 Filed 7–14–17; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. FAA–2017–0703; Special Conditions No. 23–283–SC]

Special Conditions: Pilatus Aircraft Ltd., PC–24, Autothrust System

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final special conditions; request for comments.

SUMMARY: These special conditions are issued for the Pilatus Aircraft Ltd. PC–24 airplane. This airplane will have a novel or unusual design feature associated with installation of an autothrust system. 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: These special conditions are effective July 17, 2017, and are applicable July 6, 2017.

ADDRESSES: Send comments identified by docket number FAA–2017–0703 using any of the following methods:

☐ *Federal eRegulations Portal:* Go to *http://www.regulations.gov* and follow the online instructions for sending your comments electronically.

☐ *Mail:* Send comments to Docket Operations, M–30, U.S. Department of Transportation (DOT), 1200 New Jersey Avenue SE., Room W12–140, West Building Ground Floor, Washington, DC 20590–0001.

☐ *Hand Delivery of Courier:* Take comments to Docket Operations in Room W12–140 of the West Building Ground Floor at 1200 New Jersey Avenue SE., Washington, DC, between 9 a.m., and 5 p.m., Monday through Friday, except Federal holidays.

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FOR FURTHER INFORMATION CONTACT: Jeff Pretz, ACE–111, Federal Aviation Administration, Small Airplane Directorate, Aircraft Certification Service, 901 Locust Street, Kansas City, MO 64106; telephone (816) 329–3239; facsimile (816) 329–4090.

SUPPLEMENTARY INFORMATION: The FAA has determined, in accordance with 5 U.S.C. 553(b)(3)(B) and 553(d)(3), that notice and opportunity for prior public comment hereon are unnecessary because the substance of these special conditions has been subject to the public comment process in several prior instances with no substantive comments received. The FAA therefore finds that good cause exists for making these special conditions effective upon issuance.

Special condition No.[2]	Company/airplane model
23–264–SC	Honda Aircraft Company/ Model HA–420.
23–272–SC	Cirrus Design Corporation/ Model SF50.
23–281–SC	Innovative Solutions and Support Inc./Pilatus Aircraft Ltd., PC–12 Models.

Comments Invited

We invite interested people to take part in this rulemaking 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 ask that you send us two copies of written comments.

We will consider all comments we receive on or before 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.

Background

On July 9, 2012, Pilatus Aircraft Ltd. applied for a type certificate for their new PC–24 airplane. The PC–24 is an aluminum pressurized low-wing business jet with a T-tail configuration and retractable undercarriage designed to meet the commuter category requirements of part 23. Two Williams International FJ44–4A turbofan engines rated at 3,400 pounds (lbs.) of take-off thrust, situated in nacelles on each side of the rear fuselage power the PC–24. The PC–24 will have a Maximum Take-off Weight (MTOW) of 17,200 pounds (7,802 kilograms). It has a maximum seating capacity of up to ten passengers and one or two pilots. The airplane will be certificated for day and night Visual Flight Rules, Instrument Flight Rules and flight into known icing.

The PC–24 is equipped with an autothrust system—also referred to as an autothrottle system. The autothrust system is useable in all phases of flight from takeoff to decision height on approach. The system includes speed and thrust modes along with monitors to prevent the system from exceeding engine or airspeed limits. A servo provides throttle movement, which is part of each throttle quadrant assembly. The servo(s) can be overridden by pilot force or disconnected using the autothrottle quick disconnect switch on either thrust control lever, the autopilot quick disconnect switch on the yoke, or the autothrottle control switch on the flight guidance panel.

Type Certification Basis

Under the provisions of 14 CFR 21.17, Pilatus Aircraft Ltd. must show the PC–24 meets the applicable provisions of part 23, as amended by amendments 23–1 through 23–62 thereto.

If the Administrator finds the applicable airworthiness regulations (*i.e.,* 14 CFR part 23) do not contain adequate or appropriate safety standards for the PC–24 because of a novel or unusual design feature, special conditions are prescribed under the provisions of § 21.16.

In addition to the applicable airworthiness regulations and special conditions, the PC–24 must comply with the fuel vent and exhaust emission

[2] *See http://rgl.faa.gov/* to review the listed special conditions.