Done in Washington, DC, this 14th day of September 2000.

**Bobby R. Acord,**

*Acting Administrator, Animal and Plant Health Inspection Service.*

[FR Doc. 00–24134 Filed 9–19–00; 8:45 am]

**BILLING CODE 3410–34–U**

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 23

**[Docket No. CE161; Special Conditions No. 23–104–SC]**

## Special Conditions: Installation of Full Authority Digital Engine Control (FADEC) System on Morrow Aircraft Corporation Model MB–300 Airplane

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final special conditions.

**SUMMARY:** These special conditions are issued for the Morrow Aircraft Corporation Model MB–300, which will use a FADEC System. This airplane will have a novel or unusual design feature associated with the installation of an engine that uses an electronic engine control system in place of the engine's mechanical 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.

**EFFECTIVE DATE:** October 20, 2000.

**FOR FURTHER INFORMATION CONTACT:** Randy Griffith, Aerospace Engineer, Federal Aviation Administration, Aircraft Certification Service, Small Airplane Directorate, ACE–111, 901 Locust, Room 301, Kansas City, Missouri, 816–329–4126, fax 816–329–4090.

**SUPPLEMENTARY INFORMATION:**

### Background

On March 5, 1999, Morrow Aircraft Corporation applied for a type certificate for the Model MB–300 airplane. The Model MB–300 is a small, normal category airplane. The airplane is powered by two reciprocating engines, each equipped with an electronic engine control system with full authority capability in place of the hydromechanical control system.

### Type Certification Basis

Under the provisions of 14 CFR 21.17, Morrow Aircraft Corporation must show that the Model MB-300 meets the applicable provisions of 14 CFR part 23, as amended by Amendments 23–1 through 23–53 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 Model MB–300 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 Model MB-300 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 pursuant to § 611 of Public Law 92–574, the ''Noise Control Act of 1972.''

Special conditions, as appropriate, are issued in accordance with § 11.49 after public notice, as required by §§ 11.28 and 11.29(b), and become part of the type certification basis in accordance with § 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 special conditions would also apply to the other model under the provisions of § 21.101(a)(1).

### Novel or Unusual Design Features

The Morrow Model MB–300 will incorporate the following novel or unusual design features:

The Morrow Model MB–300 airplane will use two engines that each include an electronic control system with full engine authority capability.

Many advanced electronic systems are prone to either upsets or damage, or both, at energy levels lower than analog systems. The increasing use of high power radio frequency emitters mandates requirements for improved high intensity radiated fields (HIRF) protection for electrical and electronic equipment. Since the electronic engine control system used on the Morrow Model MB–300 will perform critical functions, provisions for protection from the effects of HIRF fields should be considered and, if necessary, incorporated into the airplane design data. The FAA policy contained in Notice 8110.71, dated April 2, 1998, establishes the HIRF energy levels that airplanes will be exposed to in service. The guidelines set forth in this Notice are the result of an Aircraft Certification Service review of existing policy on HIRF, in light of the ongoing work of the ARAC Electromagnetic Effects Harmonization Working Group (EEHWG). The EEHWG adopted a set of HIRF environment levels in November 1997 that were agreed upon by the FAA, JAA, and industry participants. As a result, the HIRF environments in this notice reflect the environment levels recommended by this working group. This Notice states that a full authority digital engine control is an example of a system that should address the HIRF environments.

Even though the control system will be certificated as part of the engine, the installation of an engine with an electronic control system requires evaluation due to the possible effects on or by other airplane systems (e.g., radio interference with other airplane electronic systems, shared engine and airplane power sources). The regulatory requirements in 14 CFR part 23 for evaluating the installation of complex systems, including electronic systems, are contained in § 23.1309. However, when § 23.1309 was developed, the use of electronic control systems for engines was not envisioned; therefore, the § 23.1309 requirements were not applicable to systems certificated as part of the engine (reference § 23.1309(f)(1)). Also, electronic control systems often require inputs from airplane data and power sources and outputs to other airplane systems (e.g., automated cockpit powerplant controls such as mixture setting). Although the parts of the system that are not certificated with the engine could be evaluated using the criteria of § 23.1309, the integral nature of systems such as these makes it unfeasible to evaluate the airplane portion of the system without including the engine portion of the system. However, § 23.1309(f)(1) again prevents complete evaluation of the installed airplane system since evaluation of the engine system's effects is not required.

Therefore, special conditions for the Morrow Model MB–300 provide HIRF protection and evaluate the installation of the electronic engine control system for compliance with the requirements of § 23.1309(a) through (e) at Amendment 23–53.

### Discussion of Comments

A notice of proposed special conditions No. 23–00–02–SC for the Morrow Aircraft Corporation Model MB–300 airplane was published on May 15, 2000 (65 FR 30936). No comments were received, and the special conditions are adopted as proposed.

**Applicability**

As discussed above, these special conditions are applicable to the Morrow Model MB–300. Should Morrow Aircraft Corporation 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 under the provisions of § 21.101(a)(1).

**Conclusion**

This action affects only certain novel or unusual design features on one model, the Morrow Model MB–300 airplane. 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.

**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(g), 40113 and 44701; 14 CFR 21.16 and 21.17; and 14 CFR 11.28 and 49.

**The Special Conditions**

Accordingly, under the authority delegated to me by the Administrator, the following special conditions are issued as part of the type certification basis for Morrow Model MB–300 airplane.

1. *High Intensity Radiated Fields (HIRF) Protection.* In showing compliance with 14 CFR part 21 and the airworthiness requirements of 14 CFR part 23, protection against hazards caused by exposure to HIRF fields for the full authority digital engine control system, which performs critical functions, must be considered. To prevent this occurrence, the electronic engine control system must be designed and installed to ensure that the operation and operational capabilities of this critical system are not adversely affected when the airplane is exposed to high energy radio fields.

At this time, the FAA and other airworthiness authorities are unable to precisely define or control the HIRF energy level to which the airplane will be exposed in service; therefore, the FAA hereby defines two acceptable interim methods for complying with the requirement for protection of systems that perform critical functions.

(1) The applicant may demonstrate that the operation and operational capability of the installed electrical and electronic systems that perform critical functions are not adversely affected when the aircraft is exposed to the external HIRF threat environment defined in the following table:

| Frequency | Field strength (volts per meter) | |
|---|---|---|
| | Peak | Average |
| 10 kHz–100 kHz | 50 | 50 |
| 100 kHz–500 kHz | 50 | 50 |
| 500 kHz–2 MHz | 50 | 50 |
| 2 MHz–30 MHz | 100 | 100 |
| 30 MHz–70 MHz | 50 | 50 |
| 70 MHz–100 MHz | 50 | 50 |
| 100 MHz–200 MHz | 100 | 100 |
| 200 MHz–400 MHz | 100 | 100 |
| 400 MHz–700 MHz | 700 | 50 |
| 700 MHz–1 GHz | 700 | 100 |
| 1 GHz–2 GHz | 2000 | 200 |
| 2 GHz–4 GHz | 3000 | 200 |
| 4 GHz–6 GHz | 3000 | 200 |
| 6 GHz–8 GHz | 1000 | 200 |
| 8 GHz–12 GHz | 3000 | 300 |
| 12 GHz–18 GHz | 2000 | 200 |
| 18 GHz–40 GHz | 600 | 200 |

The field strengths are expressed in terms of peak root-mean-square (rms) values.

or,

(2) The applicant may demonstrate by a system test and analysis that the electrical and electronic systems that perform critical functions can withstand a minimum threat of 100 volts per meter peak electrical strength, without the benefit of airplane structural shielding, in the frequency range of 10 KHz to 18 GHz. When using this test to show compliance with the HIRF requirements, no credit is given for signal attenuation due to installation. Data used for engine certification may be used, when appropriate, for airplane certification.

2. *Electronic Engine Control System.* The installation items that affect the electronic engine control system must comply with the requirements of § 23.1309(a) through (e) including applicable amendments through Amendment 23–53. Data used for engine certification may be used, when appropriate, for airplane certification.

Issued in Kansas City, Missouri on September 6, 2000.

**Michael Gallagher,**

*Manager, Small Airplane Directorate, Aircraft Certification Service.*

[FR Doc. 00–24141 Filed 9–19–00; 8:45 am]

**BILLING CODE 4910–13–P**

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

**[Docket No. 99–NM–26–AD; Amendment 39–11902; AD 2000–19–01]**

**RIN 2120–AA64**

## Airworthiness Directives; Bombardier Model CL–600–1A11 (CL–600) and CL–600–2A12 (CL–601) Series Airplanes

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to Bombardier Model CL–600–1A11 (CL–600) and CL–600–2A12 (CL–601) series airplanes, that requires modification of the main landing gear (MLG) brake units and inboard MLG wheels; and a revision to the Airplane Flight Manual (AFM) to include the increased cooling times for the modified brakes. This amendment allows, for certain cases, removal of the inboard and/or outboard wheel discs by installation of a placard to limit airplane operation on the ground and a revision to the AFM to include information for operating the airplane with the wheel discs removed. Additionally, this amendment provides for an acceptable method of compliance that involves installation of a new revision to the AFM. This amendment is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by this AD are intended to prevent water freezing on the brake while the airplane is in flight due to water, slush, or snow from the runway entering into the brake assemblies during takeoff, and consequently, a tire burst during landing of the airplane.

**DATES:** Effective October 25, 2000.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 25, 2000.

**ADDRESSES:** The service information referenced in this AD may be obtained from Bombardier, Inc., Canadair, Aerospace Group, P.O. Box 6087, Station Centre-ville, Montreal, Quebec H3C 3G9, Canada. This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, New York Aircraft Certification Office, 10 Fifth Street, Third Floor, Valley Stream, New York;