OFFICE having jurisdiction over the
school” and add, in their place, the
words “responsible Flight Standards
office”.

§ 141.67 [Amended]

a. In paragraph (c)(1), remove the
words “an FAA Flight Standards
District Office” and add, in their place, the
words “the responsible Flight Standards
office”.

§ 141.87 [Amended]

141. In § 141.87(a), remove the words
“Flight Standards District Office that
has jurisdiction over the area” and add,
in their place, the words “responsible Flight Standards office”.

PART 142—TRAINING CENTERS

142. The authority citation for part
142 continues to read as follows:

Authority: 49 U.S.C. 106(f), 106(g), 40113,
40119, 44101, 44701–44703, 44705, 44707,
44709–44711, 45102–45103, 45301–45302.

§ 142.11 [Amended]

143. In § 142.11(a)(2), remove the words
“FAA Flight Standards District Office that has jurisdiction over” and add,
in their place, the words “responsible Flight Standards office for”.

PART 145—REPAIRS STATIONS

144. The authority citation for part
145 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701–
44702, 44704, 44709, 44717.

§ 145.163, 145.207, 145.209, 145.211,
145.215, and 145.217 [Amended]

145. In 14 CFR part 145, remove all references to “certificate holding district office” and add, in their place, the words “responsible Flight Standards office” in the following places:

a. Section 145.163(d);

b. Section 145.207(d) and (e);

c. Section 145.209(d)(1), (e), (h)(1) and
(2), and (j);

d. Section 145.211(c)(4) and (d);

e. Section 145.215(d); and

f. Section 145.217(a)(2) introductory

PART 183—REPRESENTATIVES

183.1 [Amended]

a. In paragraph (c)(1), remove the
words “Manager, Aircraft Certification
Office, or the Manager’s designee,” and
add, in their place, the words “Aircraft Certification Service”.

b. In paragraph (c)(2), remove the
words “Manager, Aircraft Certification
Dberate, or the Manager’s designee,” and
add, in their place, the words “Aircraft Certification Service”.

c. In paragraph (e), remove the words
“Director, Aircraft Certification Service,
or the Director’s designee,” and add,
in their place, the words “Aircraft Certification Service”.

§ 183.33 [Amended]

148. In § 183.33(a), remove the words
“Director of” everywhere they appear
and add, in their place, the words “Executive Director”.

Issued under authority provided by 49
U.S.C. 106(f), 44701(a), and 44703 in
Washington, DC, on January 24, 2018.
Daniel K. Elwell,
Acting Administrator.

FR Doc. 2018–03374 Filed 3–2–18; 8:45 am
BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 23

[Docket No. FAA–2018–0090; Special
Conditions No. 23–286–SC]

Special Conditions: Textron Aviation,
Inc., Model C90A King Air; Installation
of Electronic Engine Control System

AGENCY: Federal Aviation
Administration (FAA), DOT.

ACTION: Final special conditions; request for
comments.

SUMMARY: These special conditions are
issued for the Textron Aviation, Inc.,
model C90A King Air airplane. This
airplane as modified by Nextant
Aerospace will have a novel or unusual
design feature associated with
installation of an engine that includes
an electronic engine control 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: The effective date of these
special conditions is March 5, 2018.

We must receive your comments by
April 4, 2018.

ADDRESSES: Send comments identified
by docket number FAA–2018–0090
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

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 website, 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

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, Federal Aviation Administration,
Aircraft Certification Service, Policy &
Innovation Division, Small Airplane
Standards Branch, AIR–691, 901 Locust,
Room 301, Kansas City, MO 64106;
telephone (816) 329–3239; facsimile
(816) 329–4090.

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 approval design and
delivery of the affected aircraft. In
addition, 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.

<table>
<thead>
<tr>
<th>Special conditions No.</th>
<th>Company/airplane model</th>
</tr>
</thead>
<tbody>
<tr>
<td>23–01–05–SC 1</td>
<td>Eclipse Aviation Corpor-</td>
</tr>
<tr>
<td></td>
<td>tion/Model 500.</td>
</tr>
<tr>
<td>23–10–03–SC 2</td>
<td>Diamond Aircraft Indus-</td>
</tr>
<tr>
<td></td>
<td>tries/Model DA–40NG.</td>
</tr>
<tr>
<td>23–98–03–SC 3</td>
<td>Raytheon Aircraft Com-</td>
</tr>
<tr>
<td></td>
<td>pany/Model 3000.</td>
</tr>
</tbody>
</table>

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 January 12, 2016, Nextant Aerospace applied for a supplemental type certificate (STC) for installation of two General Electric (GE) H75–100E engines that include electronic engine and propeller controls in the model C90A King Air. The model C90A, currently approved under Type Certificate No. 3A20, is a normal category twin turbo-propeller airplane with a maximum capacity of up to 13 passengers and a maximum takeoff weight of up to 9650 lbs. or 10,100 lbs., depending on the serial number modified. The airplane includes two Pratt & Whitney Corporation (PWC) PT6A–21 engines and either Hartzell or McCauley reversing propellers.

Nextant Aerospace originally received an STC for the model C90A for installation of two GE H75–100 engines. Nextant Aerospace has made application to amend the STC to install GE H75–100E engines, which include single channel analog supervisory electronic engine controls (EECs) in addition to the existing mechanical engine controls. The EEC does not include any software, but does provide single lever control for both the fuel metering and propeller control. The EEC also ensures the engine and propeller remain within their operating limits throughout the approved operating range, including propeller reverse operation and starting. Loss of the EEC results in the pilot control of the hydro-mechanical metering/shut-off lever.

The Nextant Aerospace installation of GE H75–100E engines in the model C90A King Air use an electronic engine control system (a single channel supervisory control with a mechanical backup as opposed to a two-channel full authority control with no mechanical backup) instead of a traditional mechanical only control system.

Although the engine control system is 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. This includes indirect effects of lightning, radio interference with other airplane electronic systems, shared engine and airplane data, and power sources.

The regulatory requirements in 14 CFR 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 developed, the use of electronic control systems for engines was not envisioned. The integral nature of these systems makes it necessary to ensure the airplane functions, which may be included in the EEC, are properly evaluated and that the installation does not degrade the EEC reliability, which is approved under part 33. Sections 23.1306(a) and 23.1308(a) are applied to the EEC to ensure it remains equivalent to a mechanical only system, which is also generally susceptible to the High Intensity Radiated Fields (HIRF) and lightning environments.

In some cases, the airplane in which the engine is installed determines 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 catastrophic, but that the EEC must provide 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 inspection and maintenance interval for the EEC. As this is a supervisory EEC with a mechanical control backup, the intent of this special condition is to ensure the installation of both the EEC and mechanical backup provide an equivalent reliability to that expected of a mechanical only control.

Part 23 did not envision the use of electronic engine controls with either full authority controls or supervisory only controls, and lacks the specific regulatory requirements necessary to provide an adequate level of safety. Therefore, special conditions are necessary.

Type Certification Basis

Under the provisions of Title 14, Code of Federal Regulations (CFR) 21.101, Nextant Aerospace must show that the model C90A, as changed, continues to meet the applicable provisions of the regulations incorporated by reference in Type Certificate No. 3A20 or the applicable regulations in effect on the date of application for the change. The regulations incorporated by reference in the type certificate are commonly referred to as the “original type certification basis.” The regulations incorporated by reference in 3A20 are as follows: CAR 3, effective May 15, 1956, amendments 3–1, 3–2, and 3–8; CAR 3, amendment 3–6; and CAR 3 § 3.705, amendment 3–7. In addition, the certification basis includes special conditions and some requirements from 14 CFR parts 23, 25, 36 and SFAR 27, as noted on the Type Certificate Data Sheet. If the Administrator finds that the applicable airworthiness regulations in part 23 do not contain adequate or appropriate safety standards for the model C90A 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 C90A 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.

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. Special conditions are initially applicable to the model for which they are issued. Should a supplemental type certificate be applied for a supplemental type certificate to modify any other model included on the
same type certificate to incorporate the same novel or unusual design feature, the FAA would apply these special conditions to the other model.

**Novel or Unusual Design Features**

The model C90A King Air will incorporate the following novel or unusual design features: The installation of an Electronic Engine Control (EEC) system.

**Discussion**

As defined in the summary section, this airplane makes use of an electronic engine control system in addition to 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 does not produce a failure condition not previously considered.

**Applicability**

These special conditions are applicable to the model C90A King Air when modified by Nextant Aerospace. Should Nextant Aerospace apply for a supplemental type certificate to modify any other model included on Type Certificate No. 3A20 to incorporate 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 the model C90A airplane. 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 airplane.

The substance of these special conditions has been subjected to the notice and comment 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 comment hereon are unnecessary and the FAA finds good cause, in accordance with 5 U.S.C. Code §§ 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 21.101; 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 Textron Aviation (formerly Beechcraft): model C90A King Air airplanes modified by Nextant Aerospace.

1. **Installation of Electronic Engine Control System**

a. For electronic engine control (EEC) 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. Supervisory electronic engine control system installations must be evaluated for environmental and atmospheric conditions, including lightning. The EEC system lightning and High Intensity Radiated Fields (HIRF) effects that would result in LOTC or an unacceptable change in power or thrust must be evaluated in accordance with §§ 23.1306 and 23.1308.

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, systems 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 used to substantiate compliance with part 23 requirements, then the part 23 applicant must be able to provide this data for their showing of compliance.

**Note:** The term “probable” in the context of “probable combination of failures” does not have the same meaning as used for a safety assessment process. The term “probable” in “probable combination of failures” means “foreseeable,” or those, failure conditions anticipated to occur one or more times during the operational life of each airplane.

Issued in Kansas City, Missouri, on February 16, 2018.

Pat Mullen, Manager, Small Airplane Standards Branch, Aircraft Certification Service.

[FR Doc. 2018–04417 Filed 3–2–18; 8:45 am]

**BILLING CODE 4910–13–P**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

14 CFR Part 39


RIN 2120–AA64

**Airworthiness Directives; The Boeing Company Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for all The Boeing Company Model 737–100, –200, –200C, –300, –400, –500 series airplanes. This AD was prompted by a report of wire damage on a fuel boost pump power cable, and a separate report of a fuel tank explosion on a similarly equipped airplane. This AD requires the installation of new shielded wire bundles and convoluted liners within fuel tank conduits, and revision of the maintenance or inspection program, as applicable, to incorporate certain airworthiness limitations (AWLs). We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective April 9, 2018.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of April 9, 2018.

**ADDRESSES:** For service information identified in this final rule, contact Boeing Commercial Airplanes, Attention: Contractual & Data Services (C&D&S), 2600 Westminster Blvd., MC 110–SK57, Seal Beach, CA 90740–5600; telephone 562–797–1717; internet https://www.myboeingfleet.com. You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this