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

§ 141.67 [Amended]
■ 140. In § 141.67(d)(2), 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:

§ 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), (b)(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 text.

PART 183—REPRESENTATIVES OF THE ADMINISTRATOR
■ 146. The authority citation for part 183 continues to read as follows:

§ 183.11 [Amended]
■ 147. Amend § 183.11 as follows:
■ 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 Directorate, 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 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 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 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, 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 thus 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 Canada (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 not 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 classified as catastrophic, but that the EEC must provide an equivalent reliability to mechanical engine controls. In addition, §§ 23.1141(o) and 25.901(b)(2) are applied to provide the fault tolerant design requirements of engine electronic engine 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 then 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 mitigate 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 later
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]

DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration

14 CFR Part 39
[Docket No. FAA–2017–0900; Product
Identifier 2017–NM–055–AD; Amendment
39–19208; AD 2018–04–12]

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 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), 2600 Westminster Blvd., MC
110–SK57, Seal Beach, CA 90740–5600;
telephone 562–797–1717; internet
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