Airworthiness Directive

AD No.: 2019-0179

Issued: 24 July 2019

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Change Approval Holder Names:

ROCKWELL COLLINS Inc.
BHE & ASSOCIATES Ltd.
NEXTANT AEROSPACE LLC

Modification:

Installation of Collins FDSA-6500 Flight Display System

Design Approval Holder Name:

TEXTRON AVIATION, Inc.

Type/Model designation(s):

B200, B300 and C90GTi aeroplanes

Effective Date:	31 July 2019
STC Number(s):	FAA Supplemental Type Certificates (STC) ST04356CH, SA11219SC, SA11136SC, SA01769WI, SA01784WI and SA01792WI
TCDS Number(s):	EASA.IM.A.277 and EASA.IM.A.503
Foreign AD:	FAA State of Design AD 2019-12-09 is not adopted by EASA. For affected aeroplanes operated under EU regulations, this EASA AD replaces the FAA AD.
Supersedure:	None

ATA 34 – Navigation – Airborne Collision Avoidance System Display Software – Update

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Manufacturer(s):

Rockwell Collins (for the flight display system); and Textron Aviation, Inc., formerly Cessna Aircraft Company, Hawker Beechcraft Corporation (for the aeroplanes)

Applicability:

Rockwell Collins FDSA-6500 flight display software applications, having Part Number (P/N) 810-0234-1H0001, P/N 810-0234-1H0002, P/N 810-0234-1H0003, P/N 810-0234-2C0001, P/N 810-0234-2C0002, P/N 810-0234-2H0001 or P/N 810-0234-4B0001, the software of which provides airborne collision avoidance system (ACAS) information on primary cockpit displays. These are installed in service by the referenced STCs, or in production by Pro Line Fusion© integrated system. For the aeroplanes to which this AD applies, see Appendix 1 of this AD.

Definitions:

For the purpose of this AD, the following definitions apply:

The OPSB: Rockwell Collins Operators Bulletin (OPSB) 0193-19 Revision 1.

The SIL: Rockwell Collins Service Information Letter (SIL) SIL FDSA-6500-19-1 Revision 1.

The applicable AFM(S): The Airplane Flight Manual (AFM) or AFM Supplement (AFMS) that is part of the relevant STC or production modification as embodied on the aeroplane.

The applicable AFM TC: The applicable Temporary Change (TC) for Textron Aviation aeroplanes as identified in Appendix 2 of this AD.

Reason:

It has been determined that the ACAS Fly-To Cue indication on the Collins FDSA-6500 primary cockpit displays may conflict with other ACAS information (e.g. aural cues) during a Resolution Advisory (RA) scenario. Specifically, the ACAS Fly-To Cue vertical position on the attitude direction indicator (ADI) pitch tape is displayed relative to the aircraft horizon line instead of the aircraft symbol. The potential conflict between displayed indications and ACAS aural cues could adversely affect the pilot decision-making process and may lead the pilot to over/under-correct which may result in unintended reduction in aircraft separation.

This condition, if not corrected, could compromise the safety margins when reacting to an RA.

Prompted by these findings, Rockwell Collins published the OPSB to inform aeroplane manufacturers and affected owners and operators of the issue. Rockwell Collins has indicated that there are a total of (approximately) 33 European registered aeroplanes (out of a total of 300 aeroplanes worldwide) affected.

For the reasons described above, this AD requires an amendment of the applicable AFM(S), as defined in this AD, to ensure that the flight crew operate ACAS in “TA ONLY” mode. This AD also requires a software update to the FDSA-6500 Flight Display System, after which the AFM(S) amendment can be removed.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

AFMS Update:

(1) Within 30 days after the effective date of this AD, amend the applicable AFM(S) in accordance with the recommendations contained in the OPSB, and install an appropriate placard, alerting the crew that the ACAS II unit is to be used in “TA ONLY” mode; verify that a pressure altitude reporting transponder is installed; and introduce pre-flight checks into the applicable AFM(S) to verify that the ACAS is configured in “TA ONLY” mode and the pressure altitude transponder is fully serviceable. Inform all flight crews, and thereafter, operate the aeroplane accordingly.

Amending the AFM(S) of an aeroplane may be accomplished by inserting a copy of the OPSB into the AFM(S) of that aeroplane.

Amending the AFM(S) of certain Textron Aviation aeroplanes may be accomplished by inserting a copy of the applicable AFM TC, as defined in this AD, into the AFM(S) of that aeroplane.

Modification:

(2) Within 6 months after the effective date of this AD, modify the aeroplane by installing a software update that rectifies the unsafe condition addressed by this AD. The updated software can be uploaded while the affected FDSA-6500 remains installed on the aeroplane and instructions are available through the SIL. The instructions to modify the aeroplane with this new (part number) software must be provided by the applicable design (change) approval (STC, TC, as applicable) holder and must be approved by the FAA, or approved by EASA. For certain Textron Aviation aeroplanes, the instructions of Mandatory Service Bulletin (SB) MTB 34-02 provide an acceptable method to modify the aeroplane.

(3) Before next flight after modification of an aeroplane as required by paragraph (2) of this AD, remove the AFM(S) changes and placard, introduced as required by paragraph (1) of this AD, from that aeroplane.

(4) For certain Textron Aviation aeroplanes, concurrent with removal of the AFM(S) change and placard from an aeroplane as required by paragraph (3) of this AD, insert the applicable post-SB MTB 34-02 AFM TC, as identified in Appendix 2 of this AD, inform all flight crews, and thereafter, operate the aeroplane accordingly.

Minimum Equipment List (MEL):

(5) Compliance with paragraph (1) of this AD on an aeroplane does not affect the operator's MEL requirements regarding ACAS RA inoperative for that aeroplane, except to extend the 'inoperative' period until the modification has been accomplished.

Operational Considerations:

An aeroplane on which the AFM(S) changes and placard, as required by paragraph (1) of this AD, have been implemented, can be operated in airspace in which Regulation (EU) 923/2012 applies, provided this is done in in compliance with the requirements of this AD.

Ref. Publications:

Rockwell Collins OPSB 0193-19 Revision 1 dated 03 April 2019.

Rockwell Collins SIL FDSA-6500-19-1 Revision 1 dated 04 June 2019.

Textron Aviation Mandatory SB MTB 34-02 [to be published].

Textron Aviation Pilot's Operating Handbook (POH) and Approved AFM TC, as identified in Appendix 2 of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.

2. This AD was posted on 02 July 2019 as PAD 19-115 for consultation until 16 July 2019. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the EU aviation safety reporting system.

5. For any question concerning the technical content of the requirements in this AD, or for information related to Rockwell Collins FDSA-6500 equipment, please contact:
Rockwell Collins, E-mail: customersupport@rockwellcollins.com;

   or contact Textron Aviation, E-mail teamturboprop@txtav.com.

Appendix 1 – Applicability

Aeroplanes modified in-service by STC:
Bombardier CL-600-2B16 (604 variant) aeroplanes, all serial numbers (s/n), if modified in accordance with Nextant Aerospace LLC STC ST04356CH (European validation not known).
Textron Aviation (formerly Cessna) 525B aeroplanes, all s/n, if modified in accordance with BHE & Associates, Ltd STC SA11219SC (validated in Europe under EASA STC 10068943).
Textron Aviation (formerly Beech Aircraft, Hawker Beechcraft) B200, B200C, B300 and B300C aeroplanes, all s/n, if modified in accordance BHE & Associates, Ltd STC SA11136SC (validated in Europe under EASA STC 10060629).
Textron Aviation (formerly Beech Aircraft, Hawker Beechcraft) B200, B200C, B200CGT and B200GT aeroplanes, all s/n, if modified in accordance with Rockwell Collins, Inc. STC SA01769WI (validated in Europe under EASA STC 10056340).
Textron Aviation (formerly Beech Aircraft, Hawker Beechcraft) B300 and B300C aeroplanes, all s/n, if modified in accordance with Rockwell Collins, Inc. STC SA01784WI (validated in Europe under EASA STC 10056335).
Textron Aviation (formerly Beech Aircraft, Hawker Beechcraft) C90GTi aeroplanes, all s/n, if modified in accordance with Rockwell Collins, Inc. STC SA01792WI (validated in Europe under EASA STC 10056137).
Aeroplanes modified on the production line:
Textron Aviation (formerly Hawker Beechcraft) B200GT aeroplanes, s/n BY-207, BY-239, and BY-250 to BY-364 inclusive
Textron Aviation (formerly Hawker Beechcraft) B200CGT aeroplane, s/n BZ-1
Textron Aviation (formerly Hawker Beechcraft) B300 aeroplanes, s/n FL-954, FL-1010, and FL-1031 to FL-1203 inclusive.
Textron Aviation (formerly Hawker Beechcraft) B300C aeroplanes, s/n FM-66 to FM-83 inclusive.

Appendix 2 – Applicable AFM TC

Textron Aviation Aeroplanes	POH and Approved AFM TC
B200GT and B200CGT	pre-SB MTB 34-02: 434-590168-0003BTC4 dated April 2019
	post-SB MTB 34-02: 434-590168-0003BTC6 dated July 2019
B300 and B300C	pre-SB MTB 34-02: 434-590169-0003BTC1 dated April 2019
	post-SB MTB 34-02: 434-590169-0003BTC2 dated July 2019
B300 and B300C Heavy Weight	pre-SB MTB 34-02: 434-590170-0003BTC1 dated April 2019
	post-SB MTB 34-02: 434-590170-0003BTC2 dated July 2019