



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 19-115

Issued: 02 July 2019

Note: This Proposed 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

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: [TBD - standard: 14 days after AD issue date]

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: None

Supersedure: None

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

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 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 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 affected aeroplanes, 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.

Reason:

It has been determined that the airborne collision avoidance system (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.



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.
- (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.

Minimum Equipment List (MEL):

- (4) 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 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.

Remarks:

1. This Proposed AD will be closed for consultation on 16 July 2019.
2. Enquiries regarding this PAD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, can be reported to the [EU aviation safety reporting system](#).
4. For any question concerning the technical content of the requirements in this PAD, or for information related to Rockwell Collins FDSA-6500 equipment, please contact: Rockwell Collins, E-mail: customersupport@rockwellcollins.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) B300 and B300C aeroplanes, s/n FL-954, FL-1010, FL-1031 and later, and s/n FM-66 and later.
Textron Aviation (formerly Hawker Beechcraft) B200GT and B200CGT aeroplanes, s/n BY-207, BY-239, BY-250 and later, and BZ-1 and later.
Textron Aviation (formerly Hawker Beechcraft) C90GTi aeroplanes, s/n LJ-2129 and later.

