



U.S. Department
of Transportation
**Federal Aviation
Administration**

Small Airplane Directorate
Wichita Aircraft Certification Office
1801 Airport Road, Room 100
Wichita, Kansas 67209

APR 27 2015

Reply to:L115W-15-282

Mr. Joe Harvey
Rockwell Collins, Inc.
MS 124-301
400 Collins Road NE
Cedar Rapids, IA 52498

Subject: Type 2 Letter of Acceptance (LOA) for Rockwell Collins Aeronautical Data
Process for AFD-3700 High Resolution Terrain Database (HRTDb)

Reference: Rockwell Collins letter dated December 15, 2014

Dear Mr. Harvey:

TYPE 2 FAA LETTER OF ACCEPTANCE

The FAA has determined that Rockwell Collins, Inc. complies with AC 20-153A and RTCA/DO-200A with regards to their processing of terrain data. This data may include tailored data not originating from a state authority. For this data, the end user must satisfy itself for suitability with intended use. Compatibility has been established with the equipment identified in the List of Top Level Part Numbers That Use High Resolution Terrain Database (HRTDb), dated July 31, 2014, or later FAA approved revisions.

The following terms and conditions are applicable to this letter of acceptance:

1. Rockwell Collins, Inc. data quality requirements for the receipt of data from other sources, and for the delivery of data to their customers, are defined in Rockwell Collins Inc. Performance Specification of High Resolution Terrain Database CPN 963-7403-002, and DO-200A/DO-276A Compliance Plan for the High Resolution Terrain Database (HRTDb), CPN 963-7513-003, respectively.
2. Rockwell Collins, Inc. procedures for processing data are defined in DO-200A/DO-276A Compliance Plan for the High Resolution Terrain Database (HRTDb), dated 13 May 2010, or later approved version.
3. Reporting of Failures, Malfunctions, and Defects. Rockwell Collins, Inc. must report to the FAA Wichita Aircraft Certification Office any failure, malfunction, or defect of the aeronautical data produced under this LOA that may have a safety effect on operational use of the data.

4. Maintain a Quality Management System (QMS). Rockwell Collins, Inc. must maintain a quality management system as described in RTCA/DO-200A, section 2.5. Changes to the QMS that may affect the data quality objectives must be reported to the FAA Wichita Aircraft Certification Office before implementation.

5. Design Changes.

a. Rockwell Collins, Inc. must submit minor changes to the data quality requirements, the data processing standards, or the quality management system to the FAA Wichita Aircraft Certification Office in accordance with procedures described within DO-200A/DO-276A Compliance Plan for the High Resolution Terrain Database (HRTDb), dated 13 May 2010, or later approved version. All other changes are considered major, and must be substantiated and accepted prior to implementation in the same manner as that for the original LOA.

b. Upon receipt of notification by the FAA Wichita Aircraft Certification Office that an unsafe condition exists in database product supplied under this LOA, Rockwell Collins, Inc. shall develop corrective action and submit it to the FAA Wichita Aircraft Certification Office for approval. Rockwell Collins, Inc. shall expedite distribution of the approved corrective action to customers and users.

6. Rockwell Collins, Inc. must perform periodic internal audits as described in RTCA/DO-200A, section 3, with a maximum time between audits (whether total or incremental) of not more than one year. Any major non-conformities as described in RTCA/DO-200A, section 3.4 must be reported to the FAA Wichita Aircraft Certification Office. Additionally, the FAA may perform periodic audits in accordance with procedures described within Rockwell Collins Procedure Quality Manual RC-QMS-P-000.

7. Rockwell Collins, Inc. must advise their customers of the status of their LOA as well as the status of LOAs (or foreign acceptance, including designation of the foreign authority that acknowledges the foreign source's compliance to RTCA/DO-200A and the means of approval or acceptance) for all previous chain participants (up to, but not including, a State's AIP). The method must be timely to ensure that customers can react to changes in the status of their LOA.

If further information concerning this project is needed, please contact the FAA's point of contact, Mr. Roger Souter at 316-946-4134 or email roger.souter@faa.gov, Wichita Aircraft Certification Office.

Sincerely,

A handwritten signature in black ink, appearing to read "D. Hilton". The signature is fluid and cursive, with a large initial "D" and a long, sweeping underline.

Daniel S. Hilton
Electrical Systems and Avionics
Associate ACO Manager
Wichita Aircraft Certification Office

CC: Kansas City MIDO

<u>Document No.</u>	<u>Description</u>
096-0039-004, Rev. -	Computer Program Configuration Item for the High Resolution Terrain Database Factory Release, dated 15 January 2014
096-0040-004, Rev. -	Computer Program Configuration Item for the High Resolution Terrain Database Incremental Update, dated 21 January 2014
091-8385-005, Rev. -	Computer Program Configuration Item for the High Resolution Terrain Database Processing System, dated 25 August 2014
963-7402-003, Rev. -	High Resolution Terrain Database Requirements, dated 21 August 2014
964-8778-004, Rev. -	High Resolution Terrain Database Test Cases, dated 25 August 2014
No CPN	List of Top Level Part Numbers That Use High Resolution Terrain Database (HRTDb), dated 31 July 2014
963-6747-002, Rev. -	NavData Data Quality Requirements Document for Collins 18 Delivery, dated 21 June 2012
963-7403-002, Rev. -	Performance Specification of High Resolution Terrain Database, dated 25 August 2014



**List of Top Level Part Numbers That Use High Resolution Terrain Database (HRTDb)
July 31, 2014**

HRTDb CPCIs:

- 096-0039-XXX (factory release)
- 096-0040-XXX (incremental field loadable release)

The HRTDb will be loaded into the CCM-6210 (FAA TSO):

Database	SCID Part #	Equipment Part #	State Data	Jeppesen Data
HRTDb	963-8332-001	822-2192-001	X	X
HRTDb	963-8332-002	822-2192-001	X	X
HRTDb	963-8332-200	822-2192-002	X	X

The following applications use data from the HRTDb when it is loaded into the CCM-6210:

Application	Part #
SVSA-6000 Synthetic Vision System Application	810-0074-XXX
TPSA-6000 Terrain Processing System Application	810-0083-XXX

The HRTDb will be loaded into MFD-2810 Helo Situational Awareness (EASA TC):

Database	SCID Part #	Equipment Part #	State Data	Jeppesen Data
HRTDb	222-7990-056 ¹	822-2531-002	X	X

The SFC HRTDb will be loaded into the AFD-3700 (FAA TSO):

Database	SCID Part #	Equipment Part #	State Data	Jeppesen Data
SFC HRTDb	946-8187-001	822-3065-001	X	X

¹ The SCID referenced is not that of the MFD-2810, but rather is the SCID for the Situational Awareness (SA) SW Module