U.S. Department
of Transportation

**Federal Aviation
Administration**

**Transport Airplane Directorate
Los Angeles Aircraft
Certification Office**

3960 Paramount Boulevard
Lakewood, California 90712-4137

April 27, 2007

Mr. Robert C. Uhde II
Universal Avionics Systems Corp
3260 E. Universal Way
Tucson AZ 85706

Dear Mr. Uhde:

**TYPE 2 FAA LETTER OF ACCEPTANCE
LOA0003LA**

The FAA has determined that Universal Avionics System Corporation complies with AC 20-153 and RTCA/DO-200A with regards to their processing of navigation data. Navigation databases may also include customer tailored data not originating from a state authority, such as at private airports/runways and private arrival/departure procedures. The end user has the responsibility to verify the suitability of this data for the intended operation. Compatibility has been established with the Flight Management Systems listed in Appendix A of this letter.

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

1. The Universal Avionics System Corporation data quality requirements for the receipt of data from other sources are defined in Universal Avionics document EP0984B, *Data Requirements for the Jeppesen Source Data for the UASC Navigation Databases*. The Universal Avionics System Corporation data quality requirements for the delivery of data to their customers are defined in EP1654E, *Processing Requirements for the Group 5 Navigation Databases* and EP0994J, *Parts List and Content Requirements for the Navigation Databases*. The end user has the ultimate responsibility to ensure data requirements are met and to verify the navigation data loaded in their FMS is current and valid for the intended operation.
2. The Universal Avionics System Corporation procedures for processing data are defined in EP1852B, RTCA/DO-200A Compliance Plan for the Navigation Databases and EP1350I, Processing Checklist for the Navigation Databases.
3. Reporting of Failures, Malfunctions, and Defects. Universal Avionics Systems Corporation must report to the FAA Los Angeles 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.

Type 2 FAA Letter of Acceptance LOA0003LA
Appendix A

Reviewed By:	Geanine Ballard **Geanine M. Ballard, Director, Engineering Services Organization**	**Date:**	3/15/17
Reviewed By:	Rick Williams **Rick D. Williams, Manager, Certification / DAR**	**Date:**	**3/15/17**
Created/ Revised By:	Laura L. Niles **Laura L. Niles, Senior Airworthiness Certification Specialist**	**Date:**	**3/15/17**

LOG OF REVISIONS

Rev No.	Revision Date	Description of Changes
33	11-May-2015	Change(s) highlighted in light yellow. EP0994 Rev ZAX to ZAY EP1350 Rev ZAZ to ZBA EP3571 Rev. L to M
34	08-Sep-2015	Change(s) highlighted in light yellow. EP0984 Rev L to M EP1262 Rev K to L EP1350 Rev ZBA to ZBB EP1654 Rev O to P EP2898 Rev B to C EP3500 Rev C to D
35	29-Sep-2015	Change(s) highlighted in yellow. EP1350 Rev ZBB to ZBC
36	10-Mar-2016	Change(s) highlighted in light yellow. EP0994 Rev. ZAY to ZAZ EP1350 Rev ZBC to ZBD EP1654 Rev P to Q EP2891 Rev K to L EP3372 Rev F to G EP3571 Rev. M to N EP3572 Rev D to E
37	25-Mar-2016	Change(s) highlighted in light yellow. EP0994 Rev. ZAZ to ZBA EP1350 Rev ZBD to ZBE EP3571 Rev. N to O
38	03-Nov-2016	Change(s) highlighted in light yellow. Corrected P/Ns 3116-X0-11110X and 3116-X2-X11XX to 3116-X2-X11X EP1350 Rev ZBE to ZBF
39	08-Dec-2016	Change(s) highlighted in light yellow. EP0994 Rev. ZBA to ZBB EP1350 Rev. ZBF to ZBG
40	15-Mar-2017	Change(s) highlighted in light yellow. SOP-ENG-QA-07.01 Rev. 01 to 02 EP0994 Rev. ZBB to ZBC EP1262 Rev. L to M EP1350 Rev ZBG to ZBH EP1852 Rev. I to J EP3571 Rev. O to P

a. Acceptance of Universal Avionics System Corporation aeronautical data process is provided based on the specification and control of the data quality requirements provided in Table 1, compliance with AC 20-153A and RTCA/DO-200A, and the compatibility of the delivered data with the Flight Management System products listed in Table 2.

Table 1

Document Number	**Description**
SOP-ENG-QA-07.01 Rev. 02, 25-Oct-2016	*RTCA/DO-200A Quality Assurance Plan*
EP0984M 31-Jul-2015	*Data Requirements for the Jeppesen Source Data for the UASC FMS Navigation Databases*
EP0994ZBC 27-Jan-2017	*Parts List and Content Requirements for the FMS Navigation Databases*
EP1262M 09-Mar-2017	*Configuration Plan for the FMS Navigation Databases*
EP1350ZBH 01-Feb-2017	*Data Processing Procedures for the FMS Navigation Databases*
EP1654Q 08-Mar-2016	*Processing Requirements for the Group 5 FMS Navigation Databases*
EP1852J 09-Mar-2017	*RTCA/DO-200A Compliance Plan for the FMS Navigation Databases*
EP2891L 08-Mar-2016	*Tool Qualification Test Procedures for the Group 5 FMS Navigation Databases*
EP2898C 31-Jul-2015	*Tool Requirements for ARINC 424 Tolerance Checking for the Group 5 FMS Navigation Databases*
EP2899C 02-May-2013	*Tool Qualification Test Plan for ARINC 424 Tolerance Checking for the Group 5 Navigation Databases*
EP2900C 02-May-2013	*Tool Qualification Test Procedures for ARINC 424 Tolerance Checking for the Group 5 Navigation Databases*
EP3031B 29-Jun-2012	*Data Quality Requirements for the EAG Source Data for the UASC Navigation Databases*
EP3372G 08-Mar-2016	*Tool Qualification Test Procedures for the EAG Source Data for the Group 5 FMS Navigation Databases*
EP3500D 31-Jul-2015	*Tool Requirements for the FAA Flight Inspection Packet Merge Tool for the FMS Navigation Databases*
EP3506D 02-May-2013	*Tool Qualification Test Procedures for the FAA Flight Inspection Packet Merge Tool for the Navigation Databases*
EP3571P 01-Feb-2017	*Tool Qualification Test Procedures for the Jeppesen Source Data for the Group 5 FMS Navigation Databases*
EP3572E 08-Mar-2016	*Tool Qualification Test Procedures for the FAA Aeronautical Information Services Source Data for the Group 5 FMS Navigation Databases*

b. Universal Avionics has established compatibility with the following Flight Management Systems. Compilation of data to the compatible format has been accomplished using Universal Avionics System Corporations' aeronautical data process.

Table 2

PART No.	DESCRIPTION	SCN	Approvals
10172-XX-XXX	UNS-1C+ FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
10192-XX-XXX	UNS-1C/sp+ FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
11922-X0-XXXX0X	UNS-1D+ FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
11162-XX-XXXX	UNS-1K+ FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
2017-XX-XX1	UNS-1E FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
2019-XX-X01	UNS-1E/Esp FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
2192-X0-XXXX0X	UNS-1F FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
2116-XX-XXXX	UNS-1L FMS/MMMS	802, 803, 902, 903	TSO-C115b TSO-C129 A1/B1/C1
3017-XX-2X1	UNS-1Ew FMS/MMMS	1000, 1100,	TSO-C115b TSO-C146c Class B
3019-XX-201	UNS-1Espw FMS/MMMS	1000, 1100	TSO-C115b TSO-C146c Class B
3192-X0-11110X	UNS-1Fw FMS/MMMS	1000, 1100	TSO-C115b TSO-C146c Class B
3116-X2-X11X	UNS-1Lw FMS/MMMS	1000, 1100	TSO-C115b TSO-C146c Class B
3017-XX-XX1X	UNS-1Ew FMS/MMMS	1001.X, 1101.X, 1101.XM	TSO-C115c (Dev) TSO-C146c Class 3 (Dev)
3019-XX-X01X	UNS-1Espw FMS/MMMS	1001.X, 1101.X, 1101.XM	TSO-C115c (Dev) TSO-C146c Class 3 (Dev)
3192-X0-X1110XX	UNS-1Fw FMS/MMMS	1001.X, 1101.X, 1101.XM	TSO-C115c (Dev) TSO-C146c Class 3 (Dev)
3116-X2-X11X	UNS-1Lw FMS/MMMS	1001.X, 1101.X, 1101.XM	TSO-C115c (Dev) TSO-C146c Class 3 (Dev)

c. Compliance to Paragraph 19b of AC 20-153A:

TABLE 3

PART No.	DESCRIPTION	SCN	Approvals
1017-XX-XXX	UNS-1C FMS/MMMS	601, 701	TSO-C115b TSO-C129 A1/B1/C1
1017-XX-XXX	UNS-1C FMS/MMMS	602, 603, 604, 702, 703, 704	TSO-C115b TSO-C129a A1/B1/C1
1019-XX-XXX	UNS-1Csp FMS/MMMS	601, 701	TSO-C115b TSO-C129 B1/C2
1019-XX-XXX	UNS-1Csp FMS/MMMS	602, 603, 604, 702, 703, 704	TSO-C115b TSO-C129a A1/B1/C1
1116-XX-111X	UNS-1K FMS/MMMS	601, 701	TSO-C115b TSO-C129 A1/B1/C1
1116-XX-111X	UNS-1K FMS/MMMS	602, 603, 604, 702, 703, 704	TSO-C115b TSO-C129a A1/B1/C1
1190-XX-211X	UNS-1B+ FMS/MMMS	601, 701	TSO-C115b TSO-C129 A1/B1/C1
1190-XX-211X	UNS-1B+ FMS/MMMS	602, 603, 604, 702, 703, 704	TSO-C115b TSO-C129a A1/B1/C1
1192-X0-111X0X	UNS-1D FMS/MMMS	601, 701	TSO-C115b TSO-C129 A1/B1/C1
1192-X0-111X0X	UNS-1D FMS/MMMS	602, 603, 604, 702, 703, 704	TSO-C115b TSO-C129a A1/B1/C1
2017-XX-XXX	UNS-1E FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
2019-XX-XXX	UNS-1Esp FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
2116-XX-XXXX	UNS-1L FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
2192-XX-XXXXXX	UNS-1F FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
10172-XX-XXX	UNS-1C+ FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
10192-XX-XXX	UNS-1Csp+ FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
11162-XX-XXXX	UNS-1K+ FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1
11922-XX-XXXXXX	UNS-1D+ FMS/MMMS	800, 801, 900, 901	TSO-C115b TSO-C129a A1/B1/C1