



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

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

MAR 18 2013

Reply to:L115W-13-196

Mr. Robert C. Godsy
GARMIN International Inc.
1200 East 151st Street
Olathe, KS 66062

Subject: Request for new Type 2 Letter of Acceptance (LOA) for Garmin's aeronautical
Terrain database process

Reference: 1) Garmin Type 2 LOA letter dated October 12, 2011
2) Garmin E-mail dated 03-14-2013 to Wichita ACO

Dear Mr. Godsy:

TYPE 2 FAA LETTER OF ACCEPTANCE

The FAA has determined that Garmin International complies with AC 20-153A and RTCA/DO-200A with regards to their processing of terrain data. Compatibility has been established with the avionics systems identified in the List of Applicable Avionics Systems for Terrain, dated August 3, 2011, or later FAA approved revisions.

The following terms and conditions are applicable to this Letter of Acceptance (LOA), are not transferable, and are effective until surrendered or withdrawn by the holder, or terminated by the FAA:

1. The Garmin International data quality requirements for the receipt of data from other sources, and for the delivery of data to their customers, are defined in the Garmin document *G2CD Data Quality Requirements* (005-00210-17).
2. The Garmin International procedures for processing data are defined in *TERRA Database Release Process and Procedure* (005-00177-15).
3. Reporting of Failures, Malfunctions and Defects. Garmin International must report to the FAA Wichita ACO 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). Garmin International 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 ACO before implementation.

5. Design Changes.
 - a. Garmin International must submit minor changes to the data quality requirements, the data processing standards, or the quality management system to the FAA Wichita ACO in accordance with procedures described within Garmin standard operating practice *Aircraft Appliance Approval* (SOP-044). 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 ACO that an unsafe condition exists in a database product supplied under this LOA, Garmin International shall develop corrective action and submit it to the FAA Wichita ACO for approval. Garmin International shall expedite distribution of the approved corrective action to customers and users.
6. Garmin International must perform periodic internal audits as described in RTCA/DO-200A, section 3, with the 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 ACO. Additionally, the FAA may perform periodic audits in accordance with procedures described within Garmin document *G2CD Quality Management Plan and Procedures* (005-00210-13).
7. This LOA applies to terrain databases only, and does not apply to Navigation, Obstacle, SafeTaxi, or Charting databases. Specifically, the database part numbers covered by this LOA are below in the List of Applicable Avionics Systems for Terrain.
8. Garmin International must advise their customers of the status of their LOA. The method must be timely to ensure that customers can react to changes in the status of their LOA.

9. This LOA assumes that Garmin International's customers will access the Garmin web site for LOA status and data alerts.



Margaret Kline,
Manager
Wichita Aircraft Certification Office

Enclosure
Cc: Kansas City MIDO

List of Applicable Avionics Systems for Terrain
March 12, 2013

The following list identifies Garmin avionics systems that utilize terrain databases specified on Garmin's Type 2 LOA:

Garmin Integrated Avionics Family (G1000, Embraer Prodigy, Cirrus Perspective, GDU 620/G500, G900X, G950 systems) using terrain database P/N 006-D0122-(), 006-D0121-(), 006-D0678-():

- GDU 1040
- GDU 1040A
- GDU 1042
- GDU 1043
- GDU 1044
- GDU 1044B
- GDU 1045
- GDU 1200W
- GDU 1240A
- GDU 1400W
- GDU 1500
- GDU 620/G500
- G900X/G950

Garmin Integrated Avionics Family (G1000, GDU 620/G500 systems) using terrain database P/N 006-D2038-():

- GDU 1040H
- GDU 620/G500

Garmin Integrated Avionics Family (G2000, G3000, G5000) using terrain database P/N 006-D2659-():

- GDU 1200W
- GDU 1400W
- GTC 570

Garmin GNC 400/500 Family using terrain database P/N 006-D0122-(), 006-D0121-():

- GPS 400
- GNC 420
- GNC 420A
- GNS 430
- GNS 430A
- GPS 500 TAWS
- GPS 500
- GNS 530 TAWS
- GNS 530

- GNS 530A TAWS
- GNS 530A

Garmin GNC 400W/500W Family using terrain database P/N 006-D0122-(), 006-D0121-(), 006-D2038-():

- GPS 400W
- GNC 420W
- GNC 420AW
- GNS 430W
- GNS 430AW
- GPS 500W
- GPS 500W TAWS
- GNS 530W
- GNS 530W TAWS
- GNS 530AW
- GNS 530AW TAWS

Garmin GTN 6xx/7xx Family using terrain database P/N 006-D2659-():

- GTN 625
- GTN 635
- GTN 650
- GTN 725
- GTN 750