



FAA
Aviation Safety

SPECIAL AIRWORTHINESS INFORMATION BULLETIN

SUBJ: Navigation

SAIB: CE-11-16

LNAV/VNAV and LNAV+V Full Scale Deflection in SBAS (WAAS) enabled Garmin Integrated Flight Decks, GNS 400W/500W – series, and SBAS (WAAS) enabled GNS 480/CNX80 units **Date:** January 18, 2011

This is information only. Recommendations aren't mandatory.

Introduction

This Special Airworthiness Information Bulletin advises you, owners and operators of the incorrect LNAV/VNAV and LNAV+V Full Scale Deflection in **SBAS (WAAS) enabled Garmin Integrated Flight Decks (G1000/Cirrus Perspective/Embraer Prodigy/G900X/G950), GNS 400W/500W-series, and SBAS (WAAS) enabled GNS 480/CNX80 units.**

At this time, the airworthiness concern is not an unsafe condition that would warrant Airworthiness Directive (AD) action under Title 14 of the Code of Federal Regulations (14 CFR) part 39.

Background

Garmin has identified an issue, whereby CDI (Course Deviation Indicator)/HSI (Horizontal Situation Indicator) scaling on a limited number of LNAV/VNAV, and LNAV+V approaches is incorrect. Affected approaches include those with long final approach segments (specific criteria below). For these approaches, full scale deflection on the CDI/HIS will result in the aircraft flying outside of allowed lateral limits for the approach. Assuming the aircraft continues on approach and does not deviate any further laterally, it will remain protected from any terrain or obstacles. LPV approaches and LNAV approaches without advisory (+V) vertical guidance are not affected.

For this to occur, all of the following conditions must be met:

- Vector-to Final has not been selected;
- The approach is labeled “L/VNAV” or “LNAV+V” by the system; and
- The distance between the FAF (Final Approach Fix) and the MAP (Missed Approach Point) is greater than seven nautical miles.

All SBAS (WAAS) enabled Garmin Integrated Flight Decks (G1000/Cirrus Perspective/Embraer Prodigy/G900X/G950), GNS 400W/500W-series, and SBAS (WAAS) enabled GNS 480/CNX80 units are affected.

Garmin has provided Service Advisory No. 1047, Rev A, dated November 22, 2010 and Installation Bulletin NO. 1048, Rev A, dated 29 November 2010, to owners of record and to OEMs to bring attention to the potential for this issue and instruct users to check the database cycles for their equipment for removal of the affected approaches until the issue is addressed in a future software release.

Beginning with the database cycles listed below, Garmin has removed the capability of selecting the affected approaches until this issue is addressed in a future software release.

- Database cycle 1013, effective December 16, 2010 (Garmin Integrated Flight Deck Systems and GNS 400W/500W-series units); and
- Database cycle 1103, effective March 10, 2011 (GNS 480/CNX80 units) Affected LNAV/VNAV and LNAV+V approaches will be available as LNAV-only approaches.

Recommendations

The FAA recommends that you comply with the above-referenced Garmin service documents, including the information referenced.

For Further Information Contact

FAA, Wichita Aircraft Certification Office, Attention: Mr. Roger A. Souter, 1801 Airport Rd, Room 100, Wichita, Kansas, 67209, telephone: 316-946-4134, email: roger.souter@[faa.gov](mailto:roger.souter@faa.gov)

For Related Service Information Contact

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