AVIATION SERVICE DOCUMENT NOTIFICATION

TO: All Garmin Aviation Service Centers

DATE: April 30, 2013

SUBJECT: GNS 400W/500W Series Units Software Upgrade to Main Software Version 5.03 and GPS Software Version 5.0

CERTIFICATION

APPROVAL: TSO Authorization does not provide installation airworthiness approval. Separate installation airworthiness approval is required for type certified aircraft. Notification of revision to Garmin's STC(s) will be provided under a separate service bulletin.

COMPLIANCE

Fixed Wing Aircraft installations:

> **Recommended** for all installations with GNS 400W/500W installed with Main software version 5.00 (non-warranty)
>
> **Optional** for all other GNS 400W/500W installations (non-warranty)

Rotorcraft with Garmin HTAWS previously installed:

> **Mandatory** for all installations with GNS 400W/500W HTAWS installed (warranty)
>
> **Optional** for all other GNS 400W/500W installations (non-warranty)

PURPOSE

This Service Bulletin announces the availability of new GNS 400W/500W Series Units Main Software version 5.03 and GPS/WAAS Software version 5.0.

GNS 400W/500W Series Main Software version 5.03 includes all of the following capabilities and features that were incorporated into Software version 5.00:

- Added support for GTN crossfill (i.e., the sharing of user waypoints and transferring the active flight plan from a GTN to a GNS).
- Added support for use of the GNS 400W/500W as a position source for the GDL 88 ADS-B Datalink Transceiver.
- Added support for display of FIS-B from the GDL 88 ADS-B Datalink Transceiver.
- Added support for AC 20-165-compliant ADS-B Out operation of the GTX 330 ES transponder when the GNS unit is used as a position source. This addresses SA 1215.
- Added support for Canadian METARs and TAFs when available in the SXM Weather package provided by the GDL 69.
- Increased the software design assurance level for the Terrain page maps to Level C. Main Software version 5.00 meets TSO-C194 for HTAWS. This addresses IB 1159.
- The Procedures page now hides LNAV/VNAV-only approaches that are not authorized for SBAS.
- Corrected the issue where the text for SXM METARs and TAFs was not being displayed for some airports with three-character identifiers. This issue only occurred in situations where a 'K' identifier and a non-'K' identifier are associated with different airports, such as K1A5 and 1A5.
- Corrected issues with plotting Stormscope lightning strikes in incorrect locations in certain situations. This addresses SA 1146.
- The waypoint field on the RAIM Prediction page has been changed to default to the destination airport.
- Added a new Configuration page to allow TAWS Airport Criteria to be specified. This option allows an installer to remove from consideration in the TAWS algorithms airports that can't be used by the aircraft.
- Increased the maximum number of waypoints in a Flight Plan Route from 31 to 100.

- Added additional checks to the GNS-to-GNS crossfill interface to assure data is provided by a valid source. This change may affect the operation of non-Garmin equipment using this interface.
- GNS 400W/500W Series Main Software version 5.03 added support for use of the GNS 400W/500W as an ADS-B traffic display for the GDL 88 UAT Datalink Transceiver.
- Corrected the issue, addressed in SA 1047 and IB 1048, in which CDI (Course Deviation Indicator)/HSI (Horizontal Situation Indicator) scaling on a limited number of LNAV/VNAV and LNAV+V approaches was incorrect. The affected LNAV/VNAV and LNAV+V approaches, which have been selectable as LNAV-only approaches in the interim, can now be selected as LNAV/VNAV or LNAV+V.

In addition, GNS 400W/500W Series Main Software version 5.03 also includes all of the changes described in SSB 1006 for Main Software version 4.01.

GPS/WAAS Software version 5.0 contains the following change:

- Added support for the AC20-165-compliant ADS-B position outputs for the GDL 88 UAT and the GTX 330 ES Transponder (with compatible versions of GTX software).

- For additional information related to the GNS 400W/500W software, refer to STC Service Bulletin No. 1315 Rev A or later.

PRODUCTS AFFECTED
  The information provided herein applies to the following models:

GPS 400W (Garmin P/N 011-01057-( ))
GNC 420W (Garmin P/N 011-01058-( ))
GNC 420AW (Garmin P/N 011-01059-( ))
GNS 430W (Garmin P/N 011-01060- ( ))
GNS 430AW (Garmin P/N 011-01061-( ))
GPS 500W (Garmin P/N 011-01062-( ))
GPS 500W, TAWS (Garmin P/N 011-01063-( ))
GNS 530W, (Garmin P/N 011-01064-( ))
GNS 530W, TAWS (Garmin P/N 011-01065-( ))
GNS 530AW, (Garmin P/N 011-01066-( ))
GNS 530AW, TAWS (Garmin P/N 011-01067-( ))

DESCRIPTION
This software service bulletin describes the process for upgrading GNS 400W/500W Series Units Main Software to version 5.03 and upgrading the GPS Software to version 5.0.

Please contact your local Garmin Avionics Dealer (http://www.garmin.com/dealers/) for additional information or for questions regarding this notification. This service notification and associated bulletin/advisory product changes can only be implemented through Garmin's authorized dealer and service center network. This document is not a substitute for and cannot be used in lieu of the document(s) referenced above for airworthiness approval.