



GARMIN™ *marketing memo*

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GNS 480/CNX80 User Newsletter

Eighth Edition

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Support for the GNS 480/CNX80 Continues

In this edition we want to discuss the new features of software v2.2, including WAAS compliance, new features, upgrades and the future of the GNS 480/CNX80. Garmin remains committed to the support of all GNS 480/CNX 80 units in the field.

Full WAAS Compliance and Removal of AFMS Limitations

This STC amendment is for the inclusion of application v2.2 and GPS WAAS engine software v3.1. These software upgrades offer numerous feature enhancements and removal of previously imposed AFMS limitations and brings the GNS 480/CNX80 into full TSO C146a compliance.

In order to eliminate the current WAAS limitations on the GNS 480/CNX80, the software will have to be upgraded as well as the antenna on your aircraft. Depending upon which antenna form factor you currently have, you will replace it with either the Garmin GA35 antenna (teardrop shape) or the A33W antenna (rectangular shape). A WAAS compliant antenna will be provided to you as a part of this upgrade package. Note that the antenna upgrade is not mandatory, however without the fully compliant GPS WAAS antenna, the limitations will still apply.

This package will also include a new Flight Manual Supplement which will allow the installer to check the configuration of your installation. Once complete you will no longer be required to adhere to the previous GPS WAAS limitations.

New Features and Functions of Version 2.2

Several new features are being added to this software version, expected to be available later this year. Many of these features are the result of customer desires to add capability to the GNS 480/CNX80.

1. LP Approaches. LP approaches are essentially LPV approaches without vertical guidance. These have been requested by FAA as a new GPS WAAS approach type to provide a more precise approach to locations or runways that cannot support a vertical glidepath. These approach types should be appearing in less than a year.
2. ARINC GAMA 429 output for EFIS systems. The existing limited 429 serial data output has been substantially improved to include the data in the GAMA 429 specification. We will demonstrate the GNS 480/CNX80 429 capability as a part of the STC amendment. Approved interfaces will be listed in the installation manual.
3. Update the Level of Service capability. This change includes changes to the system to allow it to discriminate between LNAV/VNAV approaches and LNAV only approaches that have advisory vertical guidance. LNAV approaches with vertical guidance will be annunciated as LNAV+V. Approaches that are LNAV/VNAV only will be annunciated as LNAV/VNAV.
4. Several GPS software improvements were made, including improving the GPS satellite switching logic to eliminate the need to turn off WAAS corrections when outside or on the fringes of WAAS coverage.
5. A variety of minor software problems have been fixed including distance to destination and support for airports below sea level.

Other Common Questions

Some of you have inquired about ADS-B support and functionality. The GNS 480/CNX80 does in fact interface to the Garmin GDL 90 UAT datalink for display of traffic today. It will also be compatible with the new GTX330ES (extended squitter) Mode S transponder which will be available this summer. This will allow for ADS-B extended squitter transmissions by utilizing the ARINC 743A output of the GNS 480. Display of TIS-A traffic on the GNS 480 will continue to operate as before.

AC90-100 compliance has also been a common question. There has been quite a bit of work done on this over the last year as regulatory agencies weighed in on this issue. As you know the GNS 480/CNX80 was listed on the original AC, and dropped when the AC was amended due to additional criteria that Garmin could not immediately satisfy. We firmly believe the GNS 480/CNX80 has all the capability and more that could be required of any system listed on the AC to fly any RNAV procedure. We have and will continue to work to make this happen so the GNS 480/CNX80 will be listed appropriately on the AC again.

As a part of the v2.2 development effort, we've been testing the GNS 480/CNX80 with our popular GMX200 MFD and the G600 system still in development. Both will be support the GNS 480/CNX80.

Of course the biggest question has been regarding the end of production announcement made by Garmin. Unfortunately all products are discontinued at some point. We do appreciate the passion that GNS 480/CNX80 owners have exhibited for the product. The GNS 480/CNX80 has a special place in aviation history as the first system to provide precision approach capability similar to an ILS. And it did this using GPS position data, which 15 or 20 years ago would have been deemed nearly impossible. It remains a very powerful and capable navigation system that will serve you well into the future.

Garmin will continue to support the GNS 480/CNX80 as demonstrated by the new STC amendment which offers greater capability and new feature enhancements. Future support will be given to the system as needs warrant. Rest assured, Garmin will work to ensure your GNS 480/CNX80 continues to serve your needs now and in the future.

We appreciate your loyalty!

Please let us know if you have any questions or comments. We do appreciate your feedback allowing us to directly address your questions, concerns, and provide you with the best customer service we can.

We would like to extend our appreciation for your support of Garmin products.

Please feel free to contact us by visiting www.garmin.com and send your comments to the technical support group (support.salem@garmin.com): Attention Paul Damschen, Flight Test.

This Newsletter along with the first seven editions can be found on the web at: www.garmin.com/products/gns480/