

Garmin International

Number 1 in Avionics Support Again!

Here at Garmin we would like to thank our customers for ranking us as #1 in the 2006 *Aviation International News* Avionics Support Survey. At Garmin, we work hard to provide the best support to our customers, regardless of the size of aircraft. We continue to work hard to control our repair costs, maintain our rapid repair turn-around (24-48 hours once received at Garmin) and to provide the highest level of phone support to our authorized avionics dealers and pilots alike.

As we move into 2007, we are excited to announce that deliveries of the GMX 200 and new GNS 530W and 430W units are rolling along and soon your local avionics shop will be contacting those of you registered for the GNS 5xx/4xx WAAS upgrades. These products bring a number of improvements over the non-WAAS GNS 5xx/4xx units and the MX20. From faster processors to increased interfaces and weather features when the WAAS GNS 5xx/4xx is connected to a GDL 69 XM Weather Receiver, you will find that flying IFR or VFR has never been easier.

Thanks again for your continued, loyal support of our products and we continue our commitment to providing you with the best avionics support in the industry.

WAAS Update

WAAS IS HERE for the GNS 5xx/4xx!

We are pleased to finally be able to say that we have WAAS versions of our capable GNS 5xx/4xx products. We recently started shipments of new units from our Olathe, Kansas facility and are starting the upgrade process for existing units in just a couple of days as we increase our supply of parts to meet the expected demand.

Before you send in your box to be updated, we strongly encourage you to check first with your avionics shop to review your current aircraft equipment to ensure that you will be able to get the full WAAS functionality. There are some aircraft where other systems and/or indicators may not be able to display the vertical guidance component of WAAS or fly coupled autopilot WAAS approaches. This is a case of some technologies not being able to display or receive newer data types that are required for use with WAAS equipment. Your avionics shop can help you review your system, make recommendations for changes or help locate potential needed upgrades from the other avionics manufacturers.

We know that once you are able to experience the WAAS era and the increased functionality of the new (or upgraded) GNS 530W and 430W series units, you will never want to go back to using ground-based nav aids!

What's really different about GNS 5xx/4xx WAAS series?

The GNS 400W/500W series navigators with WAAS now offer many enhancements to the previous non-WAAS models. Advancements include a family of new WAAS-enabled GPS antennas, a new WAAS-GPS receiver, and associated software. The GNS 400W/500W series system also complies with WAAS TSO-C146a. The new WAAS GNS series includes a significant hardware upgrade with a new and much faster micro-processor to allow better processing of data from interfaced devices as well as a terrain database for terrain awareness as a standard feature with enhanced terrain detail. The WAAS GPS receiver now allows you to use the GNS 400W/500W series unit for primary navigation and use GPS with vertical guidance for LPV, LNAV/VNAV, and LNAV+V approaches.

WAAS (Wide Area Augmentation System) is designed to provide improved integrity and accuracy of GPS signals used for navigation. How much better? Try an average of up to five times better. A WAAS-capable receiver can give you position accuracy better than two meters 95 percent of the time. WAAS also provides the capability of quickly determining (6 to 8 seconds) when signals from a given satellite are wrong and removing that satellite from the navigation solution.

Some of the new WAAS features and functions on the GNS 400W/500W series include the following:

1. WAAS TSO-C146a navigational receivers can perform as the primary navigation device for all phases of the flight.
2. New annunciations such LPV, L/VNAV, LNAV+V, MAPR, and DPRT flight mode annunciations are provided in the lower left corner of the display to indicate the current mode of flight.
3. The WAAS GPS receiver calculates its position five times per second rather than once per second like the Classic GPS receivers.
4. Auto-Suspend (SUSP) is active for Vectors-To-Final (VTF) until on the "TO" side of the FAF and the aircraft ground track is within a 45 degrees course of the published inbound course. At this point, the suspend annunciation will automatically extinguish. Do not press OBS key or you will have to reload the approach! Go to <http://www.garmin.com/products/gns530/> and download a free WAAS training video for more detailed information.
5. The WAAS GPS receiver now allows for primary navigation and use GPS with vertical guidance for LPV, LNAV/VNAV, and LNAV+V approaches.
6. Roll steering guidance is now provided for procedure turns and holding patterns. The moving map shows the aircraft position and provides active guidance with roll steering autopilot equipped aircraft.
7. Parallel Track allows you to calculate a parallel course offset of 1 to 99 NM to the left or right of your current flight plan.
8. The Terrain function in NAV mode is now a standard feature.
9. Dead reckoning is the process of continuing navigation based on your last known position using your current heading, speed, time, and distance to be traveled after a loss of GPS navigation on an active flight plan. Navigation using dead reckoning is therefore only an estimate and requires that you maintain the last known course and speed.
10. The graphics speed for redrawing the display is much improved. This is especially evident on the Map and Terrain displays.
11. XM Weather is available through the XM Satellite Radio Service when activated in the optional installation of the GDL 69 or 69A. Textual and graphic weather products such as NEXRAD graphic weather with precipitation type, radar coverage, TFRs, TAFs, and METARs symbols are displayed in the NAV function. Audio entertainment is available through the XM Satellite Radio Service when activated in the optional installation of the GDL 69A. The 400W/500W series units serve as the display and control for your remotely mounted GDL 69A.

What's really different about GNS 5xx/4xx WAAS series unit? (Cont.)

On the Garmin website <http://www.garmin.com>, you will be able to download and receive more detailed information on the difference between the Classic GNS units and WAAS GNS units. A manual dedicated for the new WAAS GNS series units titled "What's New with the 400W/500W series" is available at <http://www.garmin.com/support/userManual.jsp>. At this same link you can get more detailed instructions on the operation of the WAAS GNS 400W/500W series by reviewing the Pilot's Guide for the appropriate unit.

To receive additional operational information, download the free WAAS Training Video from Garmin website at <http://www.garmin.com/products/gns530/>. You can also find the latest version of our free, PC-based trainer program on the same web page.

If you have any questions, comments, or need technical assistance on the GNS series units, please contact Garmin product support specialists for your region by e-mail or phone. The email addresses and phone numbers are found at the end of this newsletter for each global support office.

Other news...

GFC 700 – the GA autopilot for the 21st Century!

Cessna has recently introduced the GFC 700 autopilot in the 182 and 206 families. This addition to an already very capable aircraft increases the number of opportunities to fly a fully integrated avionics system with world-class autopilot capabilities. In addition to finding the GFC 700 in Cessna products, including the new Citation Mustang VLJ, you can find it Mooney, Diamond, and Columbia aircraft as well. If you get a chance to fly a fully equipped G1000 aircraft with the GFC 700, don't pass it up! There is no better flying autopilot system available on the market today for General Aviation. (At least that is how we feel about it!)

Seminars, rebates and other sales promotions

Be sure to check out Garmin.com to stay in touch with the latest in training seminars and sales promotions. Many sales promotions are either being extended or introduced, so if you are looking to upgrade your panel, be sure to check back often so you don't miss out on saving some cash.

Also, Garmin is making a big training push this year to reach out to the pilot community. Between our traditional seminars at your local avionics shop and new "road show" to major cities in the U.S., you will want to keep track of the locations and dates as they are published so that you don't miss out on a great opportunity to learn all of the tricks, tips and features of your Garmin avionics systems. Go to <http://www.garmin.com/whatsNew/avnSeminars.jsp> to see the current list of seminars around North America.





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About Our Organization...

Headquartered in Olathe, Kansas, with additional offices in Salem, Oregon, Romsey, United Kingdom and Singapore, Garmin Aviation Product Support is comprised of a number of teams dedicated to taking care of our customers:

- ➔ Pilot Operation, Portable and Aviation Database Support
- ➔ Field Service Engineering
- ➔ Operational Training Development
- ➔ Warranty

If you have questions about your Garmin Aviation product, please don't hesitate to contact us.

- ➔ 1-800-800-1020, option #2 then option #5 (U.S. & Canada)
- ➔ 1-800-525-6726 ext.3991 (U.S.) for Apollo products
- ➔ 1-503-391-3411 ext.3991 (Outside of the U.S.) for Apollo products
- ➔ 001.913.397.8200 (Americas and Asia)
- ➔ 0808-2380000 (within the U.K.)
- ➔ +44-1794-519944 (Europe, Middle-East & Africa)

You can also reach us by email or visit us on the web by going to:

- ➔ Email: <http://www.garmin.com/contactUs/techSupport.jsp>
- ➔ Web: <http://www.garmin.com/support>

Find your local Garmin Aviation Product Dealer by going to:

- ➔ <http://www.garmin.com/dealers/>



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