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# Garmin Unveils Next Gen All-in-one ADS-B Transponders

## GTX™ 335/345 provide a simple upgrade path for thousands of aircraft worldwide



Garmin is pleased to announce the GTX 335 and GTX 345 all-in-one ADS-B transponders, which include Extended Squitter (ES) ADS-B “Out” with an option for a built-in WAAS position source as well as dual-link ADS-B “In.” With the most compatibility options in the industry, these new transponders display on a wide variety of current and legacy Garmin displays, including select G1000® integrated flight decks. Regardless of the existing avionics configuration, the GTX 345 enables more capabilities for pilots by displaying ADS-B traffic, subscription-free weather<sup>1</sup>, GPS position data and back-up attitude information on the popular Garmin Pilot™ and ForeFlight Mobile apps via Bluetooth® and Connex™ wireless technology. The GTX 335/345 come in an attractive size and form factor, making it easy to replace the most popular transponders in the industry, like the Garmin GTX 327 and many others. Remote options are also available for compatibility with the GTN™ 650/750 series and G1000-equipped aircraft. Best of all, list prices start at only \$2,995.



## All-in-one WAAS and ADS-B Solution for Aircraft

The GTX™ 335 and GTX 345 incorporate the popular 1.65-inch (4.2 centimeters) tall panel-mount transponder form factor and boast a bright, sunlight-readable digital display, including a pressure altitude readout and flight timers, along with dedicated buttons for numeric squawk code entry. An option for an integrated WAAS/GPS position source provides aircraft owners and operators with an all-in-one solution that meets worldwide ADS-B “Out” requirements. The GTX 345 includes a dual-link ADS-B receiver that delivers pilots a complete ADS-B-provided traffic picture. When paired with compatible displays, the GTX 345 adds subscription-free Flight Information Service-Broadcast (FIS-B) weather<sup>1</sup> and ADS-B traffic, incorporating exclusive features such as TargetTrend™ and TerminalTraffic™. Remote mount options are also available for control and display within G1000 and GTN 650/750-equipped aircraft. When paired with an active traffic system, the GTX 345 combines ADS-B traffic targets and active traffic targets to display a comprehensive traffic picture. Beyond the display, the GTX 345 may be integrated into the aircraft’s audio panel to provide ATC-like audible alerts, such as “Traffic: 10 o’clock, same altitude, 2 miles,” to help pilots keep their eyes outside the cockpit when looking for traffic. Additionally, an optional altitude encoder (pictured) is available and conveniently mounts to the transponder backplate for easy installation and service, precluding the need for a static leak check after removal of the transponder for maintenance.



## ADS-B “In/Out” for G1000 Integrated Flight Decks



Select G1000 equipped aircraft, either with or without WAAS, now have an elegant and simple path for ADS-B. A remote-mounted version of the GTX 335 or GTX 345 takes the place of the aircraft’s transponder and interfaces with either the aircraft’s existing WAAS position source or the optional integrated WAAS position source to meet worldwide ADS-B “Out” requirements. The G1000 display interfaces to the transponder to provide squawk code entry and control in the same manner as before. The dual-link GTX 345 provides the capability to display various ADS-B “In” benefits (G1000 software version dependent) on the Primary Flight Display (PFD) and Multifunction Display (MFD). Pilots may view subscription-free weather<sup>1</sup>, including NEXRAD, METARs and TAFs, on the MFD as well as ADS-B traffic targets on the MFD for aircraft equipped with Synthetic Vision Technology (SVT™) on the PFD. Please see the attached table for detailed G1000 compatibility. With Connex technology built-in, additional ADS-B “In” benefits can be wirelessly streamed to a Garmin GPS portable such as the aera® 795/796 and the most popular

apps in the industry, including Garmin Pilot and ForeFlight Mobile. Additionally, when integrated with an active traffic system, ADS-B traffic and active traffic targets are merged by the GTX™ 345, giving pilots an optimal traffic picture.

### Most Comprehensive Compatibility



In addition to G1000, the GTX 345 integrates with thousands of installed displays to provide the benefits of ADS-B “In,” further extending existing avionics investments. This initially includes the popular GTN 650/750 touchscreen navigators and GNS™ 430W/530W navigators, GMX 200/MX 20, aera 795/796, Garmin Pilot, ForeFlight Mobile and other compatible third-party avionics. Additionally, customers may pair the GNS 480 with the GTX 335/345 and use the integrated WAAS position source to achieve ADS-B “Out.” Support for G500/G600 is expected in Q2 2016, while G3X Touch support is expected in Q3 2016. Pairing the transponder with a display overlays TIS-B traffic and subscription-free FIS-B weather<sup>1</sup> on top of colorful, moving maps with reference to airspace, terrain, flight plan information and more, so it’s easier to identify traffic and weather of concern. FIS-B weather products include NEXRAD, METARs, TAFs, PIREPs, winds and

temperatures aloft, NOTAMS, AIRMETs and SIGMETs. Exclusive traffic features such as TargetTrend and TerminalTraffic further enhance the traffic picture. TIS-B traffic and FIS-B weather display capabilities vary by product; please see the attached display compatibility table for details.

### Enhance the Flying Experience with Wireless Compatibility

Regardless of the existing avionics configuration, the GTX 345 displays an incredible amount of valuable flight information on compatible portable devices. With the GTX 345, customers can wirelessly receive ADS-B traffic and weather as well as precise GPS position data for use within mobile applications. Wireless compatibility initially includes the popular aera 795/796 portable aviation GPS and mobile applications, including Garmin Pilot and ForeFlight Mobile. SVT is enhanced by the AHRS within the transponder, displaying GPS-derived airspeed, altitude and vertical speed overlaid on a rich 3-D topographic landscape. Traffic is also transformed within Garmin Pilot, leveraging the Garmin exclusive TargetTrend and TerminalTraffic technologies.



The GTX 345 and GTX 335 transponders have received the FAA's Technical Standard Order (TSO) authorization and are expected to receive supplemental type certification (STC) later this month for installation in hundreds of aircraft makes and models. The GTX 345 transponder provides ADS-B "In/Out" capabilities and is available with and without WAAS for a list price of \$5,795 and \$4,995, respectively. The GTX 335 ADS-B "Out" transponder is available with WAAS for \$3,795 and without WAAS for \$2,995. Remote-mount derivatives of the GTX 335/345 share pricing equivalent to the panel-mount transponders. Please contact your local Garmin Authorized Dealer with any questions.

## GTX™ 335/345 Features and Options

	GTX 335	GTX 335R	GTX 345	GTX 345R
Price	Without GPS: \$2,995 With GPS: \$3,795	Without GPS: \$2,995 With GPS: \$3,795	Without GPS: \$4,995 With GPS: \$5,795	Without GPS: \$4,995 With GPS: \$5,795
Panel-mounted	Yes	No	Yes	No
Remote-mounted	No	Yes	No	Yes
<b>Transponder</b>				
Mode	A/C/S/ES	A/C/S/ES	A/C/S/ES	A/C/S/ES
Control via GTN Series	Yes	Yes	Yes	Yes
Control via G1000 <sup>®1,3</sup>	N/A	Yes	N/A	Yes
Altitude Encoder	Optional	Optional	Optional	Optional
<b>ADS-B</b>				
"Out" Compliant <sup>2</sup> (Any Altitude)	Standard	Standard	Standard	Standard
"In" Capable (Dual-link)	No	No	Standard	Standard
Built-in WAAS GPS	Optional	Optional	Optional	Optional
Supports ADS-R/TIS-B Traffic	N/A	N/A	Yes	Yes
Supports FIS-B Weather	N/A	N/A	Yes	Yes
Traffic & Weather Output for Panel Displays <sup>3</sup>	N/A	N/A	Yes	Yes
<b>Connex<sup>®</sup>/Bluetooth<sup>®</sup> Connectivity</b>				
Garmin Pilot	N/A	N/A	Yes	Yes
ForeFlight Mobile	N/A	N/A	Yes	Yes
aera <sup>®</sup> 795/796	N/A	N/A	Yes	Yes
AHRS Attitude Data (Non-certified)	No	No	Yes	Yes

<sup>1</sup>Software Version Requirements Apply

<sup>2</sup>WAAS Position Source Required

<sup>3</sup>Compatible with select displays. See Garmin.com for details.

<sup>1</sup>FIS-B Weather is a US only service

## GTX™ 335/345 Support for G1000® Aircraft

Display of GTX 345 Traffic Requires SW: GDU v7.10 & GIA 63 v5.31 (and later)  
 Display of GTX 345 Weather Requires SW: GDU v12.00 & GIA 63 v6.20 (and later)

Aircraft	NON-WAAS G1000 Supported	WAAS G1000 Supported	Traffic	FIS-B Weather
Cessna 350 / 400	Yes	Yes	Yes	Yes
Cessna 172R / 172S	Yes	Yes	Yes	Yes
Cessna 182S / 182T / T182T	Yes	Yes	Yes	Yes
Cessna 206H / T206H	Yes	Yes	Yes	Yes
Cessna 208 / 208B	N/A	Yes	Yes	Yes
Costruzioni Tecnam P2006T	N/A	Yes	Yes	Select Systems
Diamond DA-40 / DA-40F	Yes	Yes	Yes	Select Systems
Diamond DA-40NG	Yes	Yes	Yes	No
Diamond DA-40D	N/A	Yes	Yes	Yes
Diamond DA-42	Yes	Yes	Yes	No
Diamond DA-42NG	Yes	Yes	Yes	Yes
Diamond DA-42 L360	Yes	Yes	Yes	Select Systems
Hawker Beechcraft 58 / 58G	Yes	Yes	Yes	No
Hawker Beechcraft A36 / G36	Yes	Yes	Yes	No
Mooney M20TN / M20R / M20M	Yes	Yes	Yes	Select Systems
Piper PA-28 Archer	N/A	Yes	Yes	Yes
Piper PA-34 Seneca	N/A	Yes	Yes	Yes
Piper PA-44 Seminole	N/A	Yes	Yes	Yes
Piper PA-46 Matrix / Mirage / Meridian	N/A	Yes	Yes	Yes
Socata TBM 700	N/A	Yes	Yes	Yes
Socata TBM 850 / 900	N/A	Yes	Yes	Yes
Vulcanair P 68, P 68B, P 68C, P 68C-TC AP68TP300 "Spartacus" AP68TP 600 "Aviator"	N/A	Yes	Yes	Yes

Other requirements may apply. See a Garmin Authorized Dealer for details.

## GTX™ 345 Display Compatibility

DISPLAY	ADS-B & TIS-B Traffic	FIS-B Products	Remote Transponder Control	TargetTrend™	TerminalTraffic™
<b>G500/G600 (Coming Q2 2016)</b>	60 targets <sup>1</sup>	Regional NEXRAD, CONUS NEXRAD, METARs, TAFs, PIREPs, Winds/Temps Aloft, NOTAMs, AIRMETS, SIGMETs, TFRs	No	Yes	Yes
<b>GTN Series</b>	60 targets <sup>1</sup>	Regional NEXRAD, CONUS NEXRAD, METARs, TAFs, PIREPs, Winds/Temperatures Aloft, NOTAMs, AIRMETS, SIGMETs, TFRs	Yes	Yes	Yes
<b>G1000®</b>	30 targets (Ver 7.10 and later)	Regional NEXRAD, METARs, TAFs (Ver 12.00 and later <sup>4</sup> )	Yes	No	No
<b>GNS WAAS Series</b>	8 targets <sup>2,3</sup>	Regional NEXRAD, CONUS NEXRAD, METARs, TAFs	No	No	No
<b>Output for GMX 200/MX20</b>	Up to 60 targets <sup>1</sup>	Regional NEXRAD, METARs, TAFs	No	No	No
<b>Output for 3rd Party Displays</b>	Up to 60 targets <sup>1</sup> are sent to the 3rd Party display. Refer to 3rd Party documentation for description of traffic display function.	FIS-B data is sent to the 3rd Party display. Refer to 3rd Party documentation for description of FIS-B display function.	No	No	No

<sup>1</sup>Up to 30 airborne and 30 ground traffic targets

<sup>2</sup>Only airborne targets

<sup>3</sup>TIS-A Symbology

<sup>4</sup>Versions 13.00 – 13.07 do not include METARs