



TAS-A SERIES

TRAFFIC ADVISORY SYSTEM WITH VERITAS™/ADS-B



Avidyne's TAS-A Series Traffic Advisory Systems with VeriTAS provide active surveillance traffic detection capability along with the accuracy of ADS-B IN.

DUAL ANTENNA TAS-A WITH ADS-B IN & VERITAS

Avidyne's TAS-A Traffic Advisory Systems (TAS) combine the ADS-B IN and actively interrogated targets of the transponders of nearby aircraft and seamlessly correlates this information on a wide range of display systems, while providing visual and audible alerts in the event of a potential traffic conflict. Providing real-time traffic monitoring and advisories, the TAS-A Series is not radar-coverage limited, and can provide collision avoidance protection independent of ground-based systems.

The TAS-A Series detects and depicts 1090ES ADS-B-equipped aircraft with better accuracy and at a further range than active-surveillance alone, plus you continue to benefit from the active-surveillance capability of TAS for non-ADS-B aircraft and as an independent traffic awareness system—regardless of GPS operation or ADS-B coverage or participation.

As the Next Generation Air Transportation System (NextGen) is implemented, and with the mandate for Automatic Dependent Surveillance-Broadcast (ADS-B) on the horizon, you can fly with confidence knowing that the TAS-A is designed to provide full 1090MHz ADS-B IN capabilities.



ALL THE TRAFFIC, ALL THE TIME.

PROVEN ACTIVE PERFORMANCE

Active-surveillance is vital for traffic systems to provide a full measure of safety—in busy terminal areas as well as in non-radar airspace.

Avidyne's TAS600 series systems detect and actively interrogate other aircraft transponders within range, display the surrounding traffic on a host of compatible display systems, and provide audible and visual alerts in the event of a potential traffic conflict. All TAS600 series systems provide real-time traffic monitoring and advisories, are not radar-coverage limited, and operate independent of ground-based systems.

And with over 13,000 Traffic systems now in service, Avidyne's TAS600 Series lets you fly with confidence, knowing you have a proven, accurate, and active-surveillance traffic system.

THE MOST DISPLAY OPTIONS

Avidyne's TAS-Series provides traffic advisories by calculating range, bearing, and altitude of intruder aircraft relative to the host aircraft, and provides a graphical overlay view and traffic depiction with TCAS symbology on display systems from over 15 different manufacturers including Avidyne's Entegra Release 9, IFD540/440, and EX-Series MFDs, Garmin's G1000, GTN650/750, and 430/530-Series, and displays from Honeywell, Aspen, Collins, Chelton, Sandel, Avalex, and many others.



Avidyne IFD540 FMS/GPS/NAV/COM

MODELS

Avidyne's systems include four models, designed for your specific aircraft needs:

TAS600 Active Surveillance Traffic

Recommended for entry-level, single-engine piston aircraft, the TAS600 features a 7nm range, a 3,500-foot vertical separation maximum and 18,500-foot service ceiling.

TAS605A Active Surveillance Traffic with ADS-B IN

Recommended for mid-performance aircraft and rotorcraft, the TAS605 features a 13nm active range, a 20nm ADS-B range, a 5,500-foot vertical separation maximum and a 55,000-foot service ceiling. It accepts Arinc 429 Heading, permitting rapid repositioning of targets during high-rate turns.

TAS615A Active Surveillance Traffic with ADS-B IN

Recommended for high-performance aircraft and rotorcraft, the TAS615 features a 17nm active range, a 30nm ADS-B range, a 10,000-foot vertical separation maximum and a 55,000-foot service ceiling. It accepts Arinc 429 Heading, permitting rapid repositioning of targets during high-rate turns.

TAS620A Active Surveillance Traffic with ADS-B IN

Is our very best active traffic system, the TAS620 features a 21nm active range, a 40nm ADS-B range, a 10,000-foot vertical separation maximum and a 55,000-foot service ceiling. It accepts Arinc 429 Heading, permitting rapid repositioning of targets during high-rate turns.

The TAS600, TAS605A, TAS615A, and TAS620A are designed to meet the specific needs of each class of aircraft, providing a full 30-second decision time at a closure rate of up to 1200 knots. TAS600 Series traffic systems interrogate transponders from nearby aircraft within their respective coverage volume (shown below), and provides a warning to the flight crew when the calculated time to closest approach (CPA) of any intruder and the protected area around the aircraft reaches the 30-second threshold.

TAS-A systems add the accuracy and range of ADS-B IN.



Avidyne Entegra Series

Avidyne EX600/EX500

Avidyne IFD540/440

Avidyne MHD300

Garmin G1000

Garmin GTN750/650

Garmin 430/530

Garmin G500/G600

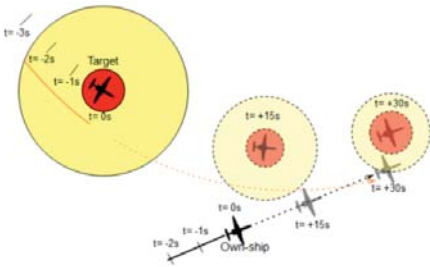
Garmin GMX 200/MX20

COMBINING THE ACCURACY OF ADS-B IN WITH THE INDEPENDENCE AND PEACE OF MIND OF AN ACTIVE-SURVEILLANCE TRAFFIC ADVISORY SYSTEM.



TAS-A WITH VERITAS

VeriTAS is Avidyne's ADS-B/TAS traffic detection & alerting technology that shows the true traffic picture by accurately and automatically correlating Active (TAS) & Passive (ADS-B) targets. Future upgrades will be available with predictive collision avoidance using advanced algorithms designed under the FAA/MIT ATAS program.



TAS-A is fully upgradeable to ATAS, with predictive collision avoidance.

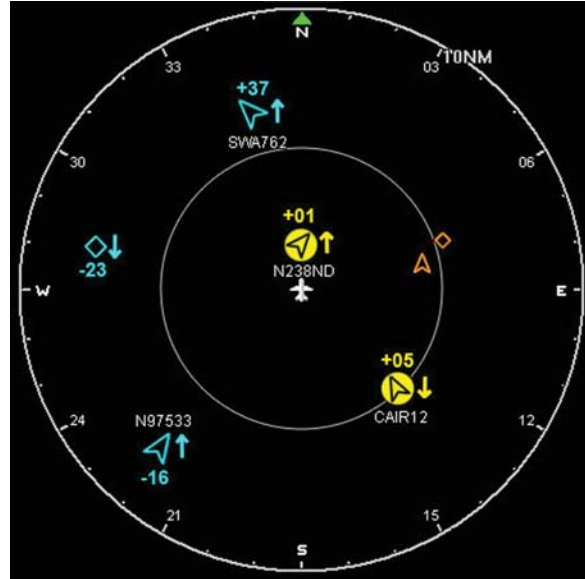
HEADS-UP AUDIBLE POSITION ALERT™

When a traffic conflict is eminent, pilots need the right information in real time. First-generation traffic systems only provide a "Traffic Traffic" audible alert, which then requires the pilot to look down at the display to locate the relative bearing and distance of the intruder aircraft before looking out the window.

Avidyne pioneered the concept of Heads-Up Audible Position Alerting, which verbally indicates the conflicting aircraft's bearing, range and relative altitude for rapid visual acquisition of traffic. This automated voice alert uses the same alert terminology as Air Traffic Control:

"Traffic! One o'clock! High! Two miles."

This type of alert provides the data a pilot needs to keep his/her attention focused outside the cockpit, scanning for oncoming traffic, and it's another example of Avidyne's innovative approach



TAS-A uses VeriTAS technology to correlate active and passive targets.

DUAL DIRECTIONAL ANTENNAS

Standard with all TAS600/A Series systems, Avidyne's patented directional top and bottom antennas provide optimum signal coverage around the host aircraft, enabling faster updates, providing enhanced performance over single antenna systems, and maximizing safety.



- 
 Aspen
EFD1000/EFD500
- 
 Honeywell KMD
250/550/850
- 
 Meggitt
- 
 Moving Terrain
AG2
- 
 Rogerson
Kratos MFG
- 
 Chelton
FlightLogic/Sierra
- 
 Sandel
3500/4500
- 
 Universal 640
- 
 Sagem

ACTIVE TRAFFIC & ADS-B IN FOR WHATEVER YOU FLY.

FUNCTIONALITY

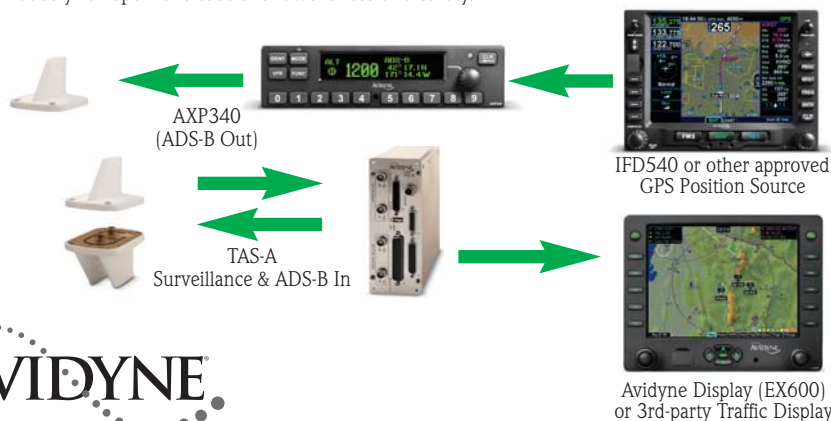
Feature	TAS600	TAS605A	TAS615A	TAS620A
Active Range	7 nm	13 nm	17 nm	20 nm
ADS-B Range	N/A	20 nm	30 nm	40 nm
Vertical Range	±3,500	±5,500	±5,500	±10,000
Altitude Limit	18,500	55,500	55,000	55,000
ARINC 429 Heading Input*	No	Yes	Yes	Yes
Max Number of Targets Displayed	30	30	30	30
Number of Targets Tracked	50	50	50	50
Active Interrogation	Yes	Yes	Yes	Yes
Voice Annunciation	Yes	Yes	Yes	Yes
Heads-Up Audible Position Alerting™	Yes	Yes	Yes	Yes
Target Bearing Annunciation	Yes	Yes	Yes	Yes
Target Relative Alt Annunciation	Yes	Yes	Yes	Yes
Target Range Annunciation	Yes	Yes	Yes	Yes
Top and Bottom Directional Antennas	Yes	Yes	Yes	Yes
ARINC 429 Display Interface	Yes	Yes	Yes	Yes
RS232 Display Interface	Yes	Yes	Yes	Yes
Yoke Mount Mute Option	Yes	Yes	Yes	Yes
N-Number Display Capability	Yes	Yes	Yes	Yes
Target Aircraft Squawk Code	Yes	Yes	Yes	Yes
Ground Mode	Yes	Yes	Yes	Yes
Weight On Wheels	Yes	Yes	Yes	Yes

TAS-A & AXP340: YOUR 1090MHZ ADS-B SOLUTION

Avidyne's AXP340 Extended Squitter Mode S Transponder provides ADS-B OUT and meets the upcoming mandates for flight internationally and in the United States airspace.

The AXP340 transmits the required ADS-B OUT signals—including your aircraft's GPS-derived position, along with ground track, ground speed, and altitude information.

The TAS-A System with VeriTAS™ receives ADS-B IN signals—from ground radar and from other 1090MHz ADS-B – equipped aircraft—and accurately displays both ADS-B and non-ADS-B traffic simultaneously for optimal situational awareness and safety.



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Avionics installations require special skills and test equipment. Avidyne's STC and limited warranty are valid only for equipment installed by an Authorized Avidyne Distributor. Avidyne reserves the right to make changes to product specifications and design features without notice.

Some products may require additional hardware for full feature capability.

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SPECIFICATIONS

Applicable TSOs:

- TSO C147
- Traffic Advisory System (TAS)

Processor Dimensions:

- Width: 7.25" (184mm)
- Height: 3.1" (79mm)
- Depth: 11.68" (296mm)

Processor Weight: 6.8 lbs (3.1 kg)

Power Requirements (Max):

- 2.90 Amp @ 14VDC
- 1.55 Amp @ 28VDC

Environmental:

- DO 160G
- -20C to +55C Operating
- +70C Short Term

Altitude Input:

- Gray Code
- ARINC 429

Cooling: None Required

Warranty: 2 Years parts & labor included

Antenna Dimensions

- Width: 3.24" (82mm)
- Height: 2.76" (70mm)
- Depth: 5.14" (131mm)

Antenna Weight:

- Top (single blade): 10.5 ounces (.3kg)
- Bottom (dual blade): 12 ounces (.34kg)

ATD150 Digital Display Dimensions:

- Width: 3.26" (83mm)
- Height: 1.55" (39mm)
- Depth: 6.75" (171mm)

ATD150 Weight: 1 lb (2.2kg)

***NOTE:** Heading input permits rapid repositioning of targets during high-rate turns, providing optimal performance for helicopter operations.