



TAS600 SERIES

TRAFFIC ADVISORY SYSTEMS

+18



-30



-02

"TRAFFIC! SIX O'CLOCK! LOW! ONE MILE!"

Avidyne's Dual-Antenna TAS600 Series Traffic Advisory Systems bring affordable active-surveillance traffic detection to the flight decks of general aviation airplanes and helicopters.

DUAL-ANTENNA TAS600 SERIES SETS A NEW STANDARD

Traffic Advisory Systems (TAS), which are based on the technology originally developed for air-transport category traffic alert and collision avoidance systems (TCAS), have been available for general aviation aircraft for several years, but have been cost-prohibitive for many owner-flown aircraft. Until now.

With the TAS600 Series, Avidyne offers four different dual-antenna TAS systems, tailored for the type of aircraft you fly. These feature-rich, affordable TAS600 series systems are fully TSO certified and fully ADS-B upgradeable, surpassing the performance capabilities of many higher-cost traffic systems and setting a new standard for active-surveillance traffic capability and affordability.



ALL THE TRAFFIC, ALL THE TIME.

PROVEN 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 10,000 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

TAS600 systems provide traffic advisories by calculating range, bearing, and altitude of intruder aircraft relative to the host aircraft, and provide a graphical overlay view and traffic depiction with TCAS symbology on display systems from over 15 different manufacturers including Avidyne's Entegra Release 9 and EX-Series MFDs, Garmin's G1000 and 400/500-Series, and displays from Honeywell, Aspen, Collins, Chelton, Sandel, Avalex, and many others.

Avidyne's ATD150 'half 3-ATI' Digital Display provides control and display functionality that can be used independently or with a multifunction display. The ATD150 adds a built-in Mute/Update, Approach Mode switch, and an Altitude Alerter function, and provides a compact alternative for displaying traffic threats when panel space is at a premium.



Avidyne ATD150 (optional)

MODELS

Avidyne's TAS600 Series systems include four models, designed for your specific aircraft needs:

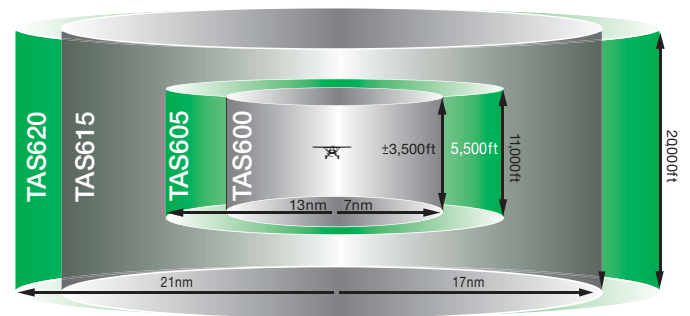
TAS600 Recommended for entry-level, single-engine piston aircraft, the TAS600 features a 7nm range, a 3,500-foot vertical separation maximum and 18,500-foot service ceiling.

TAS605 Recommended for mid-performance aircraft and rotorcraft, the TAS605 features a 13nm 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.

TAS615 Recommended for high-performance aircraft and rotorcraft, the TAS615 features a 17nm 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.

TAS620 Is our very best active traffic system, the TAS620 features a 21nm 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, TAS605, TAS615, and TAS620 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.



Avidyne Entegra Series



Avidyne EX600/EX500



Avidyne MHD300



Avidyne ATD150 Digital Display



Garmin G1000



Garmin 430/530



Garmin G500/G600



Garmin GMX 200/MX20



Aspen EFD1000/EFD500

IT TAKES TWO ANTENNAS TO SEE THE WHOLE PICTURE.

SEEING THE BIG PICTURE



Avidyne MHD300 (optional)

The TAS600 Series provides three levels of alert, so pilots can monitor traffic before it ever becomes a threat. Each of these alerts also provides an altitude separation number and may also include an Arrow pointing up or down denoting that the target is climbing or descending at a rate of 500 feet per minute or greater.

- +09 Other Traffic (OT)** - Depicted as a hollow Cyan (or White) Diamond and represents traffic that is within the TAS's surveillance area but it is beyond 6nm in range and has an altitude greater than ± 1200 feet relative to your aircraft and is not an immediate threat.
- +03 Proximity Alert (PA)** - Depicted as a solid Cyan (or White) Diamond on the traffic display, when the traffic is within a distance of 6nm range and its altitude is within ± 1200 feet, but it is still not considered a collision threat.
- +02 Traffic Alert (TA)** - Depicted as a solid Yellow Circle, a TA is displayed and an automated voice alert is activated when the calculated intercept course for altitude and direction is within 30 seconds, less than .55nm and less than ± 800 ft.

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."

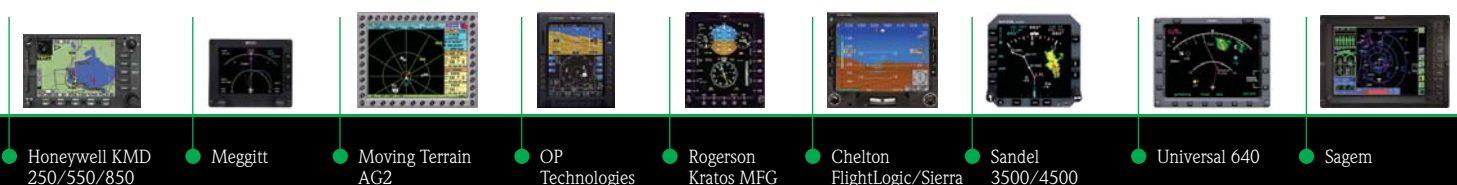
This type of alert provides the data a pilot needs to keep his/her attention focused outside the cockpit, scanning for oncoming traffic, and it's another example of Avidyne's innovative approach to avionics that makes flying simpler and safer.



In addition to displaying standard traffic symbology, Avidyne's EX600 (above), EX5000, and the MHD300 (far left) also have the ability to display the transponder squawk codes, as well as N-numbers of US registered Mode S equipped aircraft, making it even easier to identify specific targets.

DUAL DIRECTIONAL ANTENNAS

Standard with all TAS600 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.



Honeywell KMD
250/550/850

Meggitt

Moving Terrain
AG2

OP
Technologies

Rogerson
Kratos MFG

Chelton
FlightLogic/Sierra

Sandel
3500/4500

Universal 640

Sagem

ACTIVE TRAFFIC FOR WHATEVER YOU FLY.

FUNCTIONALITY

Feature	TAS600	TAS605	TAS615	TAS620
Range	7 nm	13 nm	17 nm	21 nm
Vertical Range	±3,500	±5,500	±10,000	±10,000
Service Ceiling	18,500	55,000	55,000	55,000
ARINC 429 Heading Input*	No	Yes	Yes	Yes
Transmit Power	42W	42W	42W	42W
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, Relative Altitude, and Range Annunciation	Yes	Yes	Yes	Yes
Mute/Update Switch Input	Yes	Yes	Yes	Yes
Top and Bottom Directional Antennas	Yes	Yes	Yes	Yes
ARINC 429 Output Interface	Yes	Yes	Yes	Yes
Altitude Alerting	Yes	Yes	Yes	Yes
Dynamic Shields	Yes	Yes	Yes	Yes
Yoke Mount Mute	Yes	Yes	Yes	Yes
N-Number Capability	Yes	Yes	Yes	Yes
Target Transponder Mode C Code	Yes	Yes	Yes	Yes
Ground Mode	Yes	Yes	Yes	Yes
Weight On Wheels	Yes	Yes	Yes	Yes
ADS-B Upgradable	Yes	Yes	Yes	Yes
ADS-B “In” Target Correlation [†]	Yes	Yes	Yes	Yes
ADS-B “In” Long-Range Target Display [†]	Yes	Yes	Yes	Yes

[†]Available with ADS-B “In” upgrade.

TAS600 SERIES AND ADS-B

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 all Avidyne TAS600 Series Traffic Advisory Systems are fully upgradeable to provide RTCA DO-260B ADS-B “In” capabilities. The TAS600 Series with ADS-B “In” will depict 1090ES ADS-B-equipped aircraft with better accuracy and at a further range than active-surveillance alone, plus you will continue to benefit from the active-surveillance capability of TAS for non-ADS-B aircraft and as a GPS-independent traffic awareness system. Avidyne has demonstrated itself as a proven leader in advanced avionics and continues to be at the forefront of NextGen implementation in aviation.



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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 160D
- -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)

MHD300 - Multi-Hazard Display

- TSO C110A Airborne Passive Thunderstorm Detection
- TSO C113 Multi Purpose Display
- TSO C118 TCAS I
- TSO C147 Traffic Advisory System (TAS)
- NVG compatible
- Available in gray or black bezel

MHD300 Dimensions:

- Width: 3.18” (81mm)
- Height: 3.18” (81mm)
- Depth: 7.36” (187mm)
8.5” (216mm) with connectors

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.

Avionics installations require special skills and test equipment. Avidyne's limited warranty is 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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