

Traffic Advisory Systems for Helicopters



Avidyne's dual-antenna TAS600 systems provide a new level of safety for helicopters operating in high-density traffic areas or in non-radar coverage areas, including law enforcement, homeland security, medevac, pipeline patrol, and flight schools.



Photo courtesy of Glenn Crossman.

The Dual-Antenna TAS600 Series

Avidyne offers three models of Traffic Advisory Systems (TAS) designed to meet the needs of helicopter operators. These feature-rich, value-priced TAS systems are fully TSO certified, surpassing the performance capabilities of many higher-cost traffic systems and setting a new standard for active-surveillance traffic capability and affordability.

Active Interrogation

TAS600 systems actively interrogate other aircraft transponders within range, and display these surrounding traffic on any number of compatible display systems, and provide audible alerts in the event of a potential traffic conflict. TAS600, TAS610, and TAS620 systems provide real-time traffic monitoring and advisories. They are not radar-coverage limited, nor are they dependent on ground-based systems.



Avidyne's MHD300 Multi-Hazard Display showing all three levels of traffic from a TAS600-Series Traffic Advisory System.

Improving Helicopter Safety

TAS600 Systems are the lightest and smallest systems in their class, and each can actively interrogate and track up to 50 aircraft at a time, displaying up to 9 of the nearest targets.

The TAS620 is recommended for high-performance twin and turbine rotorcraft, and features a 21nm range, a 9,900-foot vertical separation maximum and accepts Arinc 429 Heading, permitting rapid repositioning of targets during high-rate turns.

The TAS610 is recommended for mid-performance rotorcraft, and features a 12nm range, a 3,500-foot vertical separation and accepts Arinc 429 Heading, permitting rapid repositioning of targets during high-rate turns.

The TAS600 provides a low-cost and highly-reliable alternative to TIS, and is recommended for entry-level, single-engine piston aircraft, and for rotorcraft that do not have an HSI or magnetic compass system. The TAS600 features a 7nm range, a 3,500-foot vertical separation maximum.

Heads-Up Audible Position Alerting™

Avidyne's exclusive Heads-Up Audible Position Alerting™ 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 pilots with the information they need to keep their attention focused outside the cockpit, scanning for oncoming traffic. Alternatively, this feature can be muted and then updated to receive current traffic alerts.

Top and Bottom Antennas

Like the high-end dual-antenna TCAS systems found on virtually all air-transport category aircraft, the TAS600 series uses Avidyne's patented top and bottom antennas to provide optimal signal coverage, enabling faster updates, providing enhanced performance over single-antenna systems, and maximizing safety.



55 Old Bedford Road
Lincoln, MA 01773

Ph 781.402.7400 800 AVIDYNE
Fax 781.402.7597

www.avidyne.com

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, MHD300 and EX-Series MFDs, Garmin's G1000 and 400/500-series, and displays from Honeywell, Collins, Chelton, Sandel, Avalex and others.



In addition to displaying TAS traffic, Avidyne's MHD300 can also display color lightning when interfaced with the Avidyne TWX670, and TAWS when interfaced with a Honeywell EGPWS system. Its standard 3-ATI form factor allows for installation in most aircraft panels when an MFD is unavailable.



Avidyne's ATD150 'half 3-ATI' Digital Display provides a compact alternative for displaying traffic threats when panel space is at a premium.



Applicable TSOs

- TSO C147
- Traffic Advisory System (TAS)

Processor Physical Dimensions

3.1H x 7.25W x 11.675D
(7.9cm x 18.4cm 29.6cm)

Processor Weight

6.8 lbs (3.1 kg)

Power Requirements (Max)

- 2.9 Amp @ 14VDC
- 1.55 Amp @ 28VDC

Environmental

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

Cooling

- None Required

Warranty

- 2 Years parts & labor included
- Extended warranty service available

Antenna Specs

2.76H x 3.24W x 5.14D
(7cm x 8.2cm x 13.1cm)
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)
3.18H x 3.18 x 7.36D
(8.1cm x 8.1cm x 18.7cm)
8.5D (21.6cm) with connectors
- NVG compatible
- Available in gray or black bezel

ATD150 Digital Display

1.55H x 3.26W x 6.75D
(3.9cm x 8.3cm x 6.75cm)
1 pound (2.2kg)

NOTE: The TAS610 and TAS620 each have a Heading Input, which permits rapid repositioning of targets during high-rate turns, providing optimal performance for helicopter operations.