

GARMIN GTS 825 TRAFFIC ADVISORY SYSTEM - DESCRIPTION AND OPERATION**1. General**

- A. This section gives the description and operation of the Garmin GTS 825 Traffic Advisory System (TAS). The GTS 825 TAS line replaceable units (LRU)'s include the, GTS 825 TAS Processor and the GA 58 TAS Antenna.
- B. Refer to Figure 1 for a general view of the GTS 825 TAS.

2. Description

- A. The GTS Processor is a microprocessor-based LRU that uses active interrogations of Mode S and Mode A/C transponders to provide Traffic Advisories to the pilot. The system also provides visual annunciations and voice traffic alerts including voice announcements to assist in visually acquiring traffic.
- B. The GTS 825 TAS Processor is installed on the aft avionics shelf as follows:
 - (1) For the Model 208 - FS 308.000, RBL 14.05.
 - (2) For the Model 208B - FS 356.00, RBL 14.05.
- C. The Garmin GA 58 antenna is a passive directional antenna. The directional antenna has four elements, and has one coaxial connector for each element.
- D. The GA 58 TAS antennas are installed as follows:
 - (1) The GA 58 TAS antenna is installed at RBL 4.57 and just aft of, FS 155.52.

3. Operation

- A. The system is capable of tracking up to 45 intruding aircraft equipped with Mode A or C transponders, and up to 30 intruding aircraft equipped with Mode S transponders. A maximum of 30 aircraft with the highest threat potential can be displayed simultaneously. No TAS surveillance is provided for aircraft without operating transponders.
- B. The system detects and tracks other airplanes by interrogating their transponders. The system then analyzes the other airplane replies to determine the range, bearing, and altitude of the intruders. The data is shown on the "Map ♦ Traffic Map" page of the multifunction display (MFD).
- C. The TAS interfaces with the GMA 1347/1360D audio panel to transmit aural alerts if it is determined that there is a traffic hazard. Should the TAS processor determine that a possible traffic hazard exists, it gives a visual and aural advisory to the crew.
- D. The GTS 825 TAS is supplied 28 Vdc electrical power through the TAS circuit breaker found on the Avionics circuit breaker panel.

Figure 1 : Sheet 1 : Garmin GTS 825 Traffic Advisory System

