

CHAPTER 9 TRAFFIC DISPLAY INTERFACE

The SN3500 can display nearby transponder equipped aircraft when interfaced with a compatible TAS or TCAS processor. Please refer to the Pilot's Guide for the specific traffic system installed in the aircraft for a complete description of the capabilities.

Note: The SN3500 can be interfaced to a TCAS II processor but will function only as a traffic display as vertical guidance information required for conflict resolution will not be displayed.

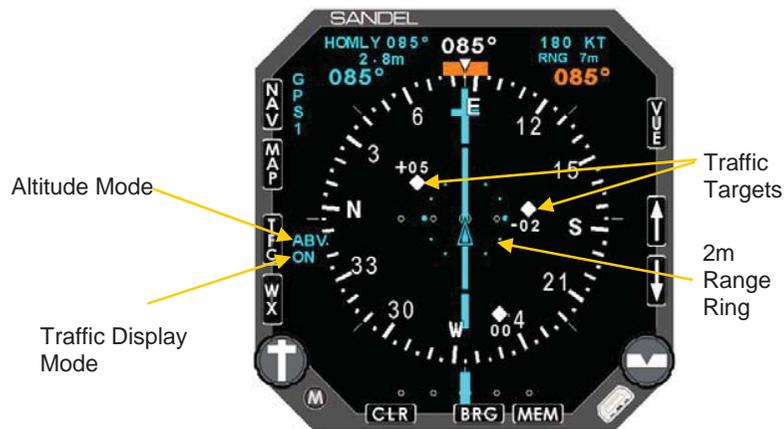


Figure 9-1 SN3500 with Traffic

Traffic Symbology

The SN3500 uses standard RTCA symbology to represent traffic.

Alerting Traffic

DISPLAY	CONDITION	DESCRIPTION
	Resolution Advisory (RA) (Available with TCAS II Only)	Immediate threat that requires evasive action. Note: Vertical guidance information is NOT shown on the SN3500 display.

	Traffic Advisory (TA)	Traffic within 15-30 seconds of closure, or within 0.20 to 0.55nm and +/-600 to +/-800 ft of your aircraft
	Traffic Alert No Bearing / No Altitude	Alerting traffic with no bearing and no altitude information available.
	Traffic Alert No Bearing	Alerting traffic with no bearing information available.

Non-Alerting Traffic

DISPLAY	CONDITION	DESCRIPTION
	Proximity Advisory	Traffic within 4nm and +/-1,200 ft of your aircraft
	Other Traffic	Traffic not representing an immediate threat
	Out of Range Traffic	RA and TA targets outside of the currently selected display range will be shown as a half symbol against the compass rose at the corresponding bearing.

Relative Altitude

Relative altitude in hundreds of feet and vertical trend information are also given for each target aircraft. **Note:** Values greater than 9900 feet are shown as '99'.

	<p>The '-02' indicates the target is 200 feet below your current aircraft altitude. The up arrow indicates the target is climbing at a vertical rate of greater than 500 fpm.</p>
	<p>The '+05' indicates the target is 500 feet above your current aircraft altitude. The down arrow indicates the target is descending at a vertical rate greater than 500 fpm.</p>

Absolute Altitude vs. Relative Altitude

The traffic processor may have an option to change the display of altitude from relative to absolute. This is called 'Flight Level' mode by some manufacturers. When activated, the altitude shown for target aircraft will temporarily be shown in hundreds of feet MSL when below 18,000 feet and as a flight level above 18,000 feet. The altitude of your aircraft will be shown in the top right of the SN3500 display.

Traffic Display Mode

The traffic display mode is annunciated next to the [TFC] button. There are three different modes available which control how the targets are displayed on the SN3500 and are toggled by pressing the [TFC] button.

- ON: Enables display of all targets within the selected map range.
- M: Manual mode. Traffic will be displayed within the selected map range only when alerting traffic is present.
- A: Auto mode. Same as Manual mode except that map range will auto-scale to an appropriate range to show the traffic on-screen.

Selecting the Manual (M) or Auto (A) modes will suppress the display of non-alerting traffic (i.e. traffic other than RAs or TAs). This can be useful in busy terminal areas where the display of all traffic may cause the screen to become too cluttered.

When the traffic display mode is set to ON, pressing the [CLR] button will change the display mode to Auto. This has the effect of removing non-alerting traffic from the display. Pressing [CLR] again will toggle the traffic display mode back to ON. Note that alerting traffic will always be shown on the display.

Altitude Mode

The currently selected altitude display mode will be displayed next to the [TFC] button.

- <none> Normal altitude display mode. Target aircraft within +/-2,700 ft. of your aircraft are displayed.
- ABV: Above altitude display mode. Target aircraft within -2,700 ft. and +9,000 ft. of your aircraft are displayed.
- BLW: Below altitude display mode. Target aircraft within -9,000 ft. and + 2,700 ft. of your aircraft are displayed.
- XTD: Extended altitude display mode. Target aircraft within +/-9,000 ft. of your aircraft are displayed.

TCAS Status

When traffic is not available, the following annunciations will be displayed next to the [TFC] button. The Traffic Display Mode annunciation will also be lined out in red.

- TEST: TCAS is currently in Test mode
- OFF or STBY: TCAS is currently in Standby mode
- FAIL: TCAS data communication not present

Traffic Overlay with Moving Map

Traffic targets can be displayed simultaneously with the moving map information described in Chapter 6. Targets will be overlaid on the moving map flight plan and icons as shown in the example below.



Figure 9-2 Traffic with Moving Map

TFC Menu

Additional traffic options can be accessed by pressing [M] and then [TFC]. The traffic setup menu will be displayed.

The following options are available:

- ON AUTO: Enables or disables map auto-ranging when alerting traffic is displayed and the traffic display mode is set to ON.



Figure 9-3 ON AUTO Menu

- ALT RANGE (Ryan 9900BX TAS Only): Selects the desired altitude mode display. When interfaced with a traffic processor other than the Ryan 9900BX, the altitude mode will be selected by remote switches or by controls on the 'master display'.



Figure 9-4 Altitude Range Menu

- ALT AS FL (Ryan 9900BX TAS Only): Changes the altitude of target aircraft to be shown as absolute altitude instead of relative altitude for 30 seconds.

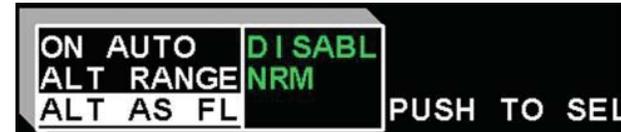


Figure 9-5 Altitude as Flight Level Menu