Eagle 3 Front and Rear Antenna Scan Mode

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Target Tracking History Overview

The current method of target tracking history that is taught to RADAR operators is to: 1) visualize and estimate target speeds, 2) listen to that target's Doppler tone and 3) verify the operator's speed estimations with the measured target speeds on the RADAR display. This method of RADAR target tracking is taught globally and is cited in RADAR case law going back more than fifty (50) years.

The Issue

Another RADAR manufacturer's five (5) window RADAR system with simultaneous front and rear active antennas can present up to five constantly changing speed measurements and two Doppler tones - one Doppler tone from each antenna. The primary issue with the five-window RADAR presentation as described by operators is that it presents too much information and is too confusing. The legal issue with a five-window RADAR presentation is that it is not humanly possible to conduct the prescribed method of target tracking on both front and rear targets at the same time. An operator cannot visualize and estimate target speeds for both front and rear targets simultaneously. An operator cannot listen to two Doppler tones and verify the speed estimations on a five-window display from both front and rear targets at the same time.

The Solution

The Eagle 3 introduces a better method of dual antenna operation that eliminates the confusion of a five-window RADAR presentation with two Doppler tones. The Eagle 3 with Scan Mode enables both the front and rear antennas to be active at the same time. Scan Mode presents target speeds and Doppler from one target zone, front or rear, depending on which zone has the fastest target present. The result is a better method of two-antenna operation that truly supports an officer's required target tracking.

Scan Mode enables the Eagle 3 to monitor multiple zones from both antennas at the same time. Scan Mode allows the Eagle 3 to automatically switch the display from one antenna to the other and present the antenna with the fastest target measured. Additionally, the Eagle 3 will change the display position and color for front and rear targets so that it is obvious to the operator which zone is presented. The Eagle 3 will display front antenna targets in red with a high position on the display while rear antenna targets are presented in blue and positioned low on the display. The Eagle 3 even changes the

background display color with front and rear targets for a better method of night operations that is pleasant to the operator's eyes and does not illuminate the inside of the patrol vehicle. Now you have a better choice for two antenna simultaneous operation.