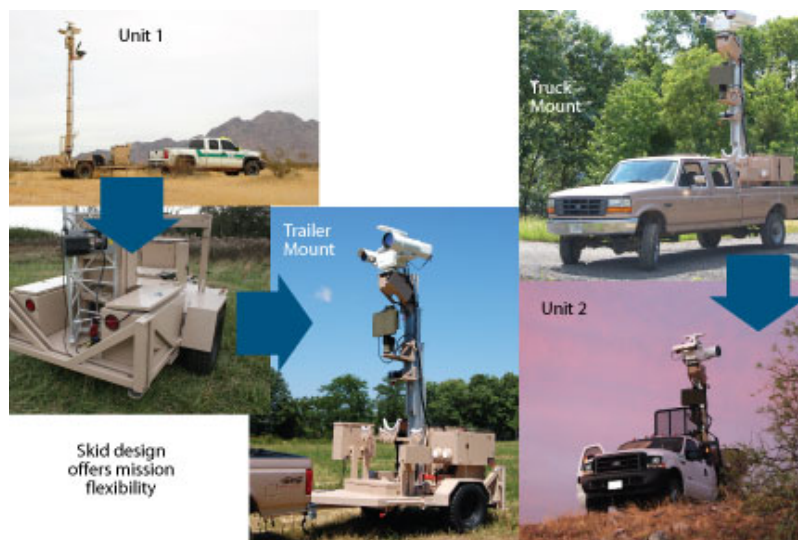


GROUND SURVEILLANCE RADAR SYSTEM FOR MOBILE BORDER SURVEILLANCE

Description: Tower-mounted sensor suite for outward looking border surveillance. Employs multiple detection and assessment technologies for a variety of terrain applications. Each self-contained suite is mounted on a skid w/ trailer for ease of deployment and relocation. Range is determined by the detection and imaging sensor selection, however the sensor control architecture remains constant allowing mixed sensor suites to network together via wireless Local Area Network (LAN) for control and annunciation on a common display.— **SCALABILITY**

Detection Sensors: One ground surveillance radar is used for each tower. The system provides continuous tracking of all targets in the detection area. The target positions are indicated on a screen and have user definable areas of detection in range and azimuth. Processed target range and bearing steers a day/night camera for pop-up video on screen with camera direction overlay.



Each tower may also monitor a suite or established field of unattended ground sensors (UGS) that are within its area of influence. UGS alarm and location are indicated on screen while the location is forwarded to the slew day/night camera with pop-up video on screen for assessment. Remote imaging UGS can also be incorporated into the sensor architecture. Working with existing non-imaging UGS as a trigger, the imaging UGS offers assessment when the UGS are outside the line-of-sight of the towers main cameras.

Assessment Technologies: The slew-to-cue platform consists of both day and night imagers that are mounted on a pan/tilt platform. The imagers are sized for the detection sensors. In all configurations the pan/tilt is automatically slewed by alarm input, can be clicked to slew or manually driven to the alarm location on the display. Slews occur from ground surveillance radar (GSR), programmed UGS or other alarm modalities' inputs.

Pilot Program Status: CBP is evaluating this new integrated capability. Two units are currently deployed on the Southwest border. The approach is a spiral development effort where design engineers directly interact with the user to capture, analyze and incorporate feedback into the real time improvements to the prototypes. The final outcome of this pilot program will produce the user requirement and technical specification to define future acquisitions. Four units will be deployed during this evaluation phase. Success may lead to networking multiple units in order to gain further border surveillance efficiency.