



ADVANCED CENTRIC SYSTEMS B.V

PORTABLE TACTICAL SURVEILLANCE & TARGETING SYSTEM

Product brochure



THE PROBLEM

Certain military, security and law enforcement operations require local ISR support. Such support is required, for example, in out-of-area operations, special operations behind enemy lines, emergency response situations and any other activity where ISR coverage is nonexistent, insufficient or not readily available.

In most cases, the forces involved in such operations cannot transport bulky or heavyweight equipment in addition to their essential gear. Consequently, the ISR configuration to be employed in these situations should be compact, lightweight, easy to deploy and operate and self-contained in terms of power supply.

THE SOLUTION

ACS presents PTSTS – Portable Tactical Surveillance & Targeting System.

PTSTS is a cutting-edge, lightweight, self-powered surveillance and targeting system for such tactical applications as forward surveillance operations, close air support targeting missions and JTAC (Joint Terminal Attack Coordinator) missions.

PTSTS incorporates the proven multi-sensor MINI-VESPA surveillance & targeting payload with a power pack, a rugged computer, a handheld display with built-in magnetic compass and a north finding module, all mounted on a light tripod.

The remote control and operation option of PTSTS enables the operator to remain safely away from the system, in a concealed and protected position.

PTSTS offers the added advantage of a vehicle mounting option – the system may be mounted on a vehicle and operated from inside the vehicle or remotely.

Carried and operated by a single operator, PTSTS can be deployed promptly: positioning and north-finding do not require accurate levelling and no bore-sighting or sensor calibration are required. The system can be operationally ready within 5 minutes (not including the thermal imager).

High capacity, lightweight batteries enable extended operation for up to 7 hours. Integral communication interfaces enable real-time transmission of video and data.

Offering portability, prompt deployment, simple operation, remote control, day/night surveillance, automatic tracking and range measurement for moving targets and target pointing, PTSTS is a welcome addition to any tactical operation where surveillance and targeting are required.

KEY FEATURES & MAJOR ADVANTAGES

Key Features & Major Advantages

- Cutting-edge portable surveillance and targeting system for tactical applications
- Based on the proven multi-sensor MINI-VESPA surveillance & targeting payload
- Carried and operated by a single operator
- Prompt deployment
- Extended operation – up to 7 hours
- Real-time transmission of video & data
- Remote control and operation enhances operator safety
- Vehicle mounting option
- Main functions:
 - Day/night visual surveillance
 - Automatic moving target tracking
 - Target acquisition: detection, recognition & identification
 - Range measurement
 - Target locating & pointing
- System specifications:

• Parameter	• Value
• System weight (including SU with 2 x energy packs, tripod & mechanical adapter, rugged computer, 10m cable, ANFM filter & external cables)	• Approx. 15.7 kg
• Lightweight backpack	• Approx. 4 kg
• North Finding (Magnetic)	• Less than 0.7°
• North Finding (ANFM)	• Less than 1.3 mrad
• Internal GPS accuracy	• ±5m
• Target position accuracy (ANFM applied)	• Azimuth: approx. 1.3 mrad • Range: ±5m
• Deployment Time	• Less than 5 minutes (excluding thermal imager)
• Operation time with two batteries (@25°C)	• Approx. 7 hours
• One double capacity battery for rugged computer (@25°C)	• Approx. 8 hours Video channel characteristics:

• Parameter	• Value / Type	• Comment
• Detector	• 1/4" CCD color	
• Video Format	• NTSC	
• Spectral Response	• Visible to near IR	
• Pixels	• 768 x 480	
• Fields-of-View	• 21°x15.75° to 0.9°x0.64°	• Continuous zoom/electronic zoom x4
• Main Controls/Modes	• Focus: Manual/Automatic • Auto exposure: fully automatic, shutter priority, iris priority, ICR (IR cut filter) – On/Off	

• IR channel (thermal imager) characteristics:

• Parameter	• Value / Type	• Comment
• Detector	• InSb FPA	• Video aspect ratio 4:3
• Video Format	• RS-170	
• Spectral range	• Within 3–5 μ m	
• Cryogenic Cooler	• Closed cycle low vibration	
• Cool Down Time	• Less than 10 minutes	
• Pixels	• 480 x 384	
• NETD	• \leq 50 mK	
• NUC	• 1 point	• 2 points for lab calibration
• Focal Length	• 19.5 to 275 mm	
• Fields-of-View	• 22°x16.5° (W) to 2.0°x1.5° (N)	• Continuous zoom
• Display Magnification	• Electronic zoom x2	

• Parameter	• Value / Type	• Comment
• Main Controls/Modes	<ul style="list-style-type: none"> • Gain/level (AGC & manual) • Automatic Contrast Enhancement (ACE) • Focus to Infinity/manual • White hot/black hot 	

• LRF specifications:

• Parameter	• Value / Type	• Comments
• Wavelength	• Eye-safe 1.5-1.6 μm	
• Range Measurement	• 300 to 10,000 m	
• Range Accuracy	• ± 5 m	
• Laser Beam Frequency	• 1 PPS	• Pulse Per Second

