

# BAIS AN/PRS-9

## Battlefield Anti-Intrusion System



### PRODUCT DESCRIPTION

The Battlefield Anti-Intrusion System (BAIS) is the U.S. Army's type standard unattended Physical Security System. BAIS provides early warning, intrusion detection and threat classification of vehicles and personnel at the platoon level and at higher echelons. The system is used by infantry platoons to establish defensive positions and by military police units for the security of personnel or assets.

BAIS, also known as the Platoon Early Warning Device II (PEWD II), is an upgrade to the obsolete Platoon Early Warning System (PEWS). The system is composed of one Hand Held Monitor (HHM) and a set of three Seismic Acoustic Sensors (SAS). The system operates in all types of terrain, under extreme temperature and climatic conditions.

The basic set of three Seismic/Acoustic Sensors can be supplemented with infrared, long-range infrared and magnetic sensors to provide additional information such as target count and target direction.

The system is small and lightweight and is easily transported by a single warfighter in ALICE or MOLLE mission equipment packs.

The program is sponsored by the U.S. Army Product Manager-Force Protection Systems (PM-FPS), Ft. Belvoir, VA.

### APPLICATIONS

- ISR Operations
- Special Operations Missions
- Intrusion Detection
- Force Protection
- Border Surveillance
- Counter Drug Missions
- Homeland Security

### FEATURES

- MIL- Qualified
- Proven Target Recognition Performance
- Reduced Size/Weight
- Flexible Configuration
- COTS Batteries
- Built-in Test and Alarms
- Anti-Tamper
- Lowest False Alarm Rate
- Software Upgradable

# BAIS

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### PERFORMANCE

<b>Sensor</b>	<b>Description</b>	<b>Detection Range</b>		<b>Target Speed</b>	
Seismic/Acoustic Sensor (SAS) MK-2965/GSR	Basic sensor that supports operation of Infrared or Magnetic sensors. Provides target class information. Employs a sophisticated algorithm to classify targets as personnel, wheeled or tracked vehicles based on combined seismic and acoustic signatures.	<u>Target Class</u>	<u>Range</u>	Speed Independent	
		Tracked	0-350 m		
		Wheeled	0-250 m		
		Personnel	0-75 m		
<b>Monitor</b>	<b>Description</b>	<b>Message Types</b>		<b>XMTR</b>	<b>RCVR</b>
Receiving Set, Radio (Hand Held Monitor-HHM) AN/PSQ-16	Provides the capability to monitor sensor transmissions with an LCD display or output via RS232 to an optional laptop. Provides the capability to program the required performance variables into the sensors and repeater	29 bit REMBASS 20/29/285 bit TRSS 101 bit AN/TMQ-30 MIDS+EMIDS		Receive Only	-111 dbm sensitivity

### PHYSICAL CHARACTERISTICS

<b>Equipment</b>	<b>Length</b>	<b>Width</b>	<b>Height</b>	<b>Weight**</b>	<b>Batteries</b>
SAS	18.9 cm	10.4 cm	8.0 cm	1.20 kg	(1) to (4) 9 Vdc Lithium cells
HHM	7.9 cm	5.3 cm	16.2 cm	.73 kg	(1) to (4) 9 Vdc Lithium cells

\*\*Weight of operational configuration with full battery complement

### ENVIRONMENTAL

High Temp:	Operating Non-operating	+65°C +71°C	Sand/Dust:	Resistant to 35 knot winds
Low Temp:	Operating Non-operating	-40°C (-20°C for HHM) -55°C (-40°C for HHM)	Salt:	Resistant per MIL-STD-810, 509.2
Altitude:	Operating Non-operating	4572 m 10668 m	Fungus:	Resistant to 28 days growth period
Humidity:		Operates in 95% relative humidity	Shock/Vibe:	Withstands 1.5 g over 5-200 Hz for 1.5 hrs
Immersion:		Survives 2 hrs in 1 m H <sub>2</sub> O with 27°C differential	EMI/EMC:	Tested to MIL-STD-461 Level Re102, CE 106 and RS103



communications

Communication Systems-East

For Additional Information Contact  
Skip Marsh

L-3 Communication Systems-East  
One Federal Street, Camden, NJ 08103  
Telephone: 719-339-4866 FAX: 856-338-2741  
E-mail: henry.marsh@L-3Com.com