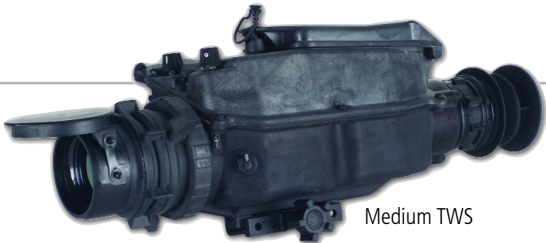
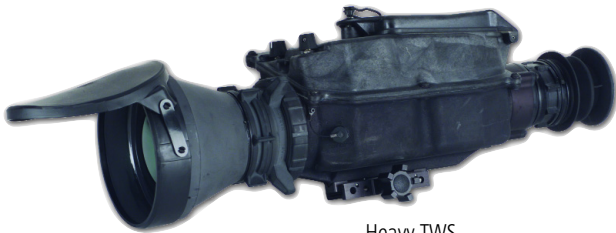


## AN/PAS-13B Thermal Weapon Sight (TWS)



Medium TWS



Heavy TWS

The compact, manportable AN/PAS-13B Thermal Weapon Sight is an all-weather infrared imaging device that cuts through battlefield obscurants to deliver clear surveillance imagery and effective fire control day and night.

### Benefits

- Combat-proven performance
- Enables Combat Forces to acquire and engage targets
- Surveillance and fire control under battlefield obscurants, adverse weather, and total darkness
- Command and Control at Squad Leader Level
- Enables detection distances up to 6.9 km
- Over 20,000 TWS units produced and delivered

### Proven Technology

The AN/PAS-13B Thermal Weapons Sight (TWS) is an advanced infrared weapon sight developed by the U.S. Army and Raytheon. The combat-proven AN/PAS-13B combines rugged, lightweight, modular construction with superior thermal imaging technology to give today's warfighter the ability to shoot equally well day or night, significantly increasing survivability and lethality margins on the 21st century battlefield.

### Clear Advantage Over Image Intensifiers

Unlike image intensifiers that require low levels of light to operate effectively, the TWS requires no visible light to operate and will not shut down or "bloom" when hit by direct light. Equally important, its use cannot be detected, since it operates silently and emits no heat or RF energy.

### Operational Features

The TWS employs advanced technologies for a cost-effective, high-performance, rugged, portable sensor. The high-sensitivity mercury cadmium telluride (HgCdTe) focal plane array (FPA) provides long-range target recognition with relatively small telescopes, while the thumbnail-sized thermoelectric cooler ensures silent operation and high reliability.

The compact, light-weight design of the TWS and its dual field of view telescope allow it to be used effectively as both a weapon-mounted sight and as a hand-held imager. It features electronically programmable reticles for compatibility with a wide range of weapons, and utilizes an eyecup-activated standby mode to prolong battery life. A multi-function digital I/O port enables remote operability and provides an NTSC RS-170 video signal for

external viewing or recording. The TWS is powered by standard military BA-5347 disposable lithium batteries or rechargeable BB-2847 lithium-ion batteries.

# AN/PAS-13B Thermal Weapon Sight (TWS)

Specifications	Medium TWS AN/PAS-13B(V)2 (P/N 3252600-1)	Heavy TWS AN/PAS-13B(V)3 (P/N 3252600-2)
<b>Performance:</b>		
<b>Range:</b>		
<b>Detect/recognize human:</b>	1.2 km (NFOV)	2.8 km (NFOV)
<b>Detect vehicle:</b>	1.5km (WFOV) 4.2 km (NFOV)	2.8 km (WFOV) 6.9 km (NFOV)
<b>Field of view:</b>		
<b>Wide (WFOV):</b>	18 deg. az × 10.8 deg. el	9 deg. az × 5.4 deg. el
<b>Narrow (NFOV):</b>	6 deg. az × 3.6 deg. el	3 deg. az × 1.8 deg. el
<b>Magnification:</b>		
<b>NFOV:</b>	5.0×	10.0×
<b>WFOV:</b>	1.66×	3.3×
<b>Physical Characteristics:</b>		
<b>Length:</b>	40 cm (15.8 in.)	46 cm (18.11 in.)
<b>Width:</b>	16 cm (6.3 in.)	16 cm (6.3 in.)
<b>Height:</b>	16 cm (6.3 in.)	16 cm (6.3 in.)
<b>Weight:</b>	2.3 kg (5 lb) with battery	2.5 kg (5.5 lb) with battery
<b>National stock number (NSN):</b>	5855-01-464-3152	5855-01-464-3151
<b>Qualified Weapons:</b>	M4, M16, M60, M240, M249	M2, M4, M16, MK19, M24, M3M
<b>Operational:</b>		
<b>Reliability:</b>	High reliability, no cooling motor to wear out	
<b>Operating temperature:</b>	-37° to +49°C	
<b>Storage temperature:</b>	-46° to +71°C	
<b>Moisture resistance:</b>	Immersible to 1 m of water	
<b>Vibration:</b>	Withstands M60A3 tank turret	
<b>Mechanical shock:</b>	Withstands weapon fire shock	
<b>Time to operation:</b>	Less than 120 seconds from power on	
<b>Image polarity:</b>	White hot/black hot	
<b>Maintenance:</b>	Only external cleaning is required	
<b>Mission operation life:</b>	7.0 hours on BA-5347; 3.5 hours plus 1.5 hours standby on BB-2847	
<b>Interfaces:</b>		
<b>Power requirements:</b>	BA-5347 disposable lithium (LiMnO <sub>2</sub> ); BB-2847 rechargeable battery (Lithium ion)	
<b>Mounting:</b>	Picatinny MIL-STD-1913 or NATO/STANAG	
<b>Video output:</b>	EIA-RS-170, NTSC	
<b>Technology:</b>		
<b>Detector:</b>	40 × 16 scanning focal plane array (640 pixels); 3 to 5 μm IR spectrum	
<b>Cooling:</b>	6-stage thermoelectric cooler	
<b>Standard accessories included:</b>	Hard plastic storage/transportation soft carry bag, telescope lens cover, operations manual, lens cleaning kit, weapon mount adapter	
<b>Optional accessories:</b>	Video output cable, rechargeable, lithium ion battery, disposable lithium battery	



**For the Soldier...  
The Ultimate Weapon**

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