Areté

AMSI

Areté Multispectral Imager

The Areté Multispectral Imager (AMSI) system is a cutting-edge development effort aimed to update and ligithweight the proven AN/DVS-1 COBRA system. AMSI incorporates a passive RGB sensor paired with a real-time processing unit, facilitating unmanned aerial tactical reconnaissance in the littoral battlespace. This capability is especially critical for identifying and localizing mine-like objects (MLO) near the water's surface in the surf and very shallow water zones, making it a key asset for military operations. The AMSI system upgrades the COBRA M11 gimbal with a new RGB imager, along with enhanced interface and onboard real-time computer units essential for the fast-moving nature of tactical reconnaissance. AMSI is integrated into Areté's Maritime Unmanned ISR Section and has been demonstrated aboard a Schiebel S-100 CAMCOPTER®. AMSI is currently at TRL 7 for automated surf zone, mine-like object detection.

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Specifications

	AMSI
Imager Configuration	RGB
Size w/IMU	16 x 11 x 11 in (412 x 284 x 283 mm)
Weight	95.9 lbs (43.5 kg)
Power Draw	680 W
Waveband Imaging	450-750nm
Pixel Pitch	3.2 um
Imaging Resolution	>100 MP
Sampling Rate	Up to 6 FPS
Processing Capability	137 TFLOPS in the Real-Time Processor
Swath	721 ft (220 m)
Operational Altitude	1200-2700 ft (365-823 m)
Horizontal Sampling	61x61 mm
FOV	24° x 20°
Platform	Manned or UAS (S-100, etc)
Platform Speed	10–45 knots
Area Search Rate	7 mi^2 (18.3 km^2)/hr
Environmental (Operational)	-30° to +45° C

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