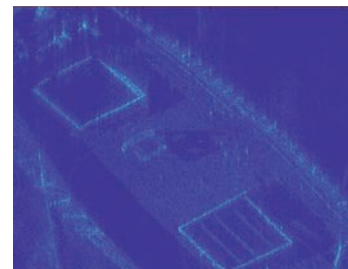


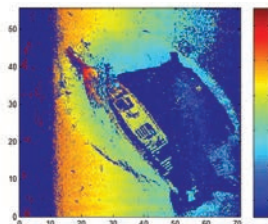
# μSAS™-SV24

A low-SWAP, information assurance / anti-tamper enabled, high-performance, interferometric Synthetic Aperture SONAR for the man-portable class UUV.

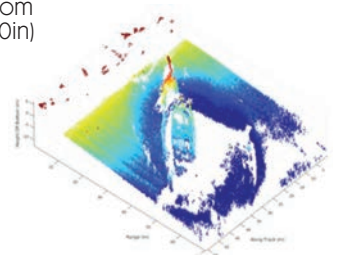
System Specifications	Real-time μSAS-IVER Characteristics
Typical Speed Range	2.0-4.7 kts
SONAR Swath Range	800 FT @ 3 kts
Operating Frequency	175-950 kHz
Source Level (nominal)	220 dB re 1 μPa @ 1 m
Input Power (nominal)	60-90W (Continuous Speed Mode Specific)
2D Pixel Size (CT x AT)	0.25 in x 1.0 in
3D Pixel Size (CT x AT)	2.0 in x 2.0 in
Input Voltage Range	9-36 VDC
Data Formats	XTF, GeoTiff, Tiff, MSHDF (Imagery), XYZ, XTF (Bathy)
Automated Target Recognition	Northrop Grumman - ATR, MK18 GATR and 3 <sup>rd</sup> Parties



2D SAS Zoom (0.25in x 1.0in)



Interferometric (3D) Height Map (2.0in x 2.0in)



Interferometric (3D) Point Cloud (2.0in x 2.0in)

Bow View



Stern View



9" Diameter UUV

Side View



Plan View



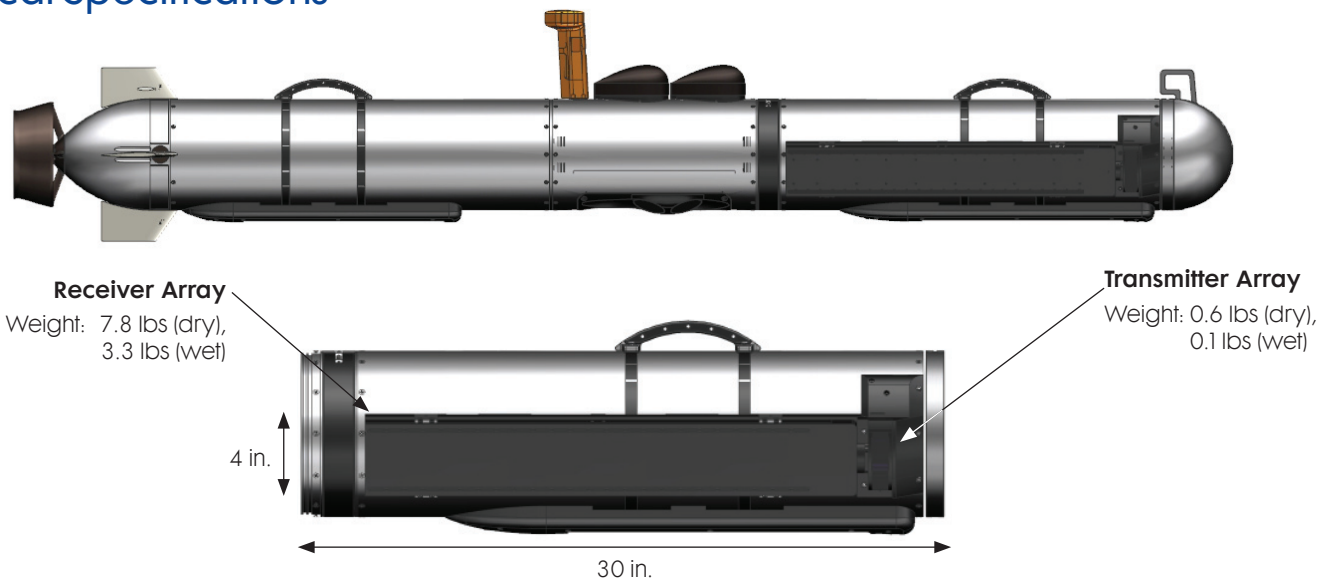
Underbody View



# Default Operating Mode Specifications

Default Modes	Typical Use Cases	Nominal Mode Power (W)	Optimal Altitude	Max Range (ft)	Maximum Speed Limit for Mode Full Range	Resolution & Pixel Size (in) @ Max Range Cross Track (CT) X Along Track (AT)
<b>iSAS</b> <b>Interferometric Synthetic Aperture SONAR</b> <b>(430kHz)</b>	Hydrographic Survey and Bathymetry Mapping, High Resolution Imaging	90	30-50 [ft] 9-16 [m]	400 [ft] 120 [m]	3.0 [kts] 1.4 [m/s]	SAS: 0.25 x 1
<b>SAS</b> <b>Synthetic Aperture SONAR</b> <b>(430kHz)</b>	High Resolution Imaging, Mine-hunting	80	30-50 [ft] 9-16 [m]	400 [ft] 120 [m]	3.0 [kts] 1.4 [m/s]	SAS: 0.25 x 1
<b>LRRAS Mid-Range RAS</b> <b>Dynamically Focused Real Aperture SONAR or SAS</b> <b>(600kHz)</b>	Shallow Water, Low Altitude, Environments w/Reduced Platform Stability	60 RAS 80 SAS	20-30 [ft] 6-9 [m]	300 [ft] 90 [m]	4.0 [kts] 2.0 [m/s]	SAS: 0.25 x 1 RAS Resolution @ Range: 0.25 x 1.5 @ 10m 0.25 x 4.5 @ 30m 0.25 x 9.0 @ 60m 0.25 x 15.0 @ 90m
<b>HRRAS High-Res RAS</b> <b>Dynamically Focused Real Aperture SONAR or SAS</b> <b>(900kHz)</b>	Very Shallow Water, Low Altitude Environments w/Reduced Platform Stability	60 RAS 80 SAS	8-16 [ft] 2.5-5 [m]	100 [ft] 30 [m]	4.7 [kts] 2.4 [m/s]	SAS: 0.25 x 1 RAS Resolution @ Range: 0.25 x 1.0 @ 10m 0.25 x 2.0 @ 20m 0.25 x 3.0 @ 30m

## Physical Specifications

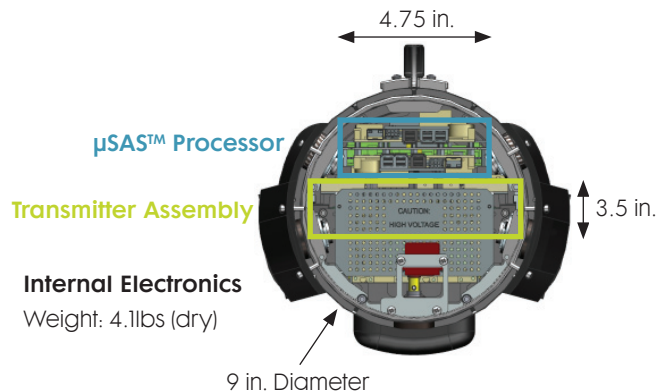


### For more information, please contact:

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