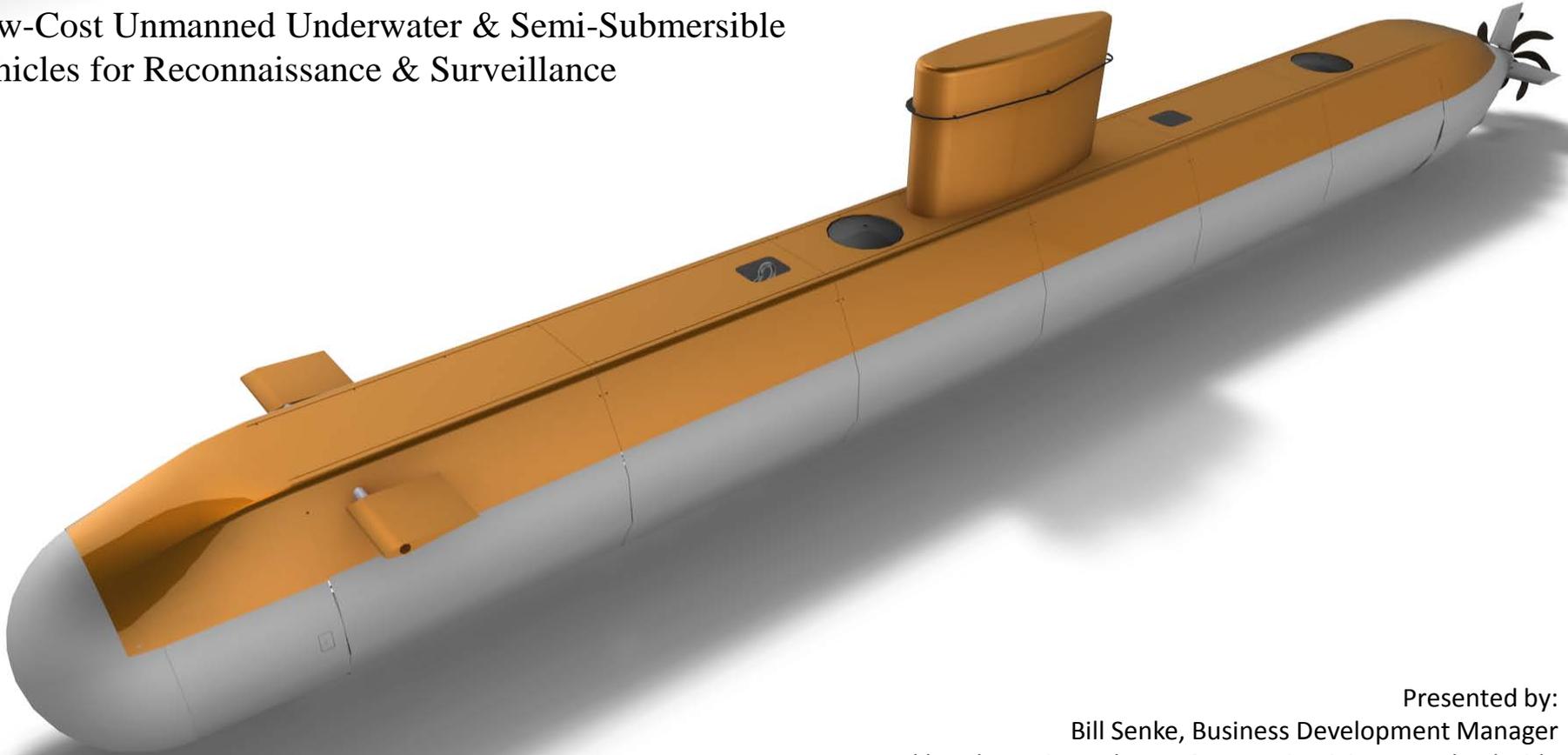


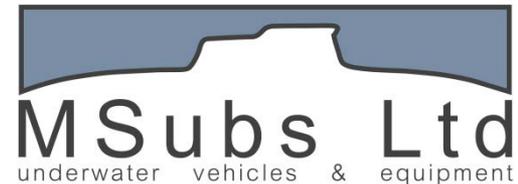
Low-Cost Unmanned Underwater & Semi-Submersible  
Vehicles for Reconnaissance & Surveillance



Presented by:  
Bill Senke, Business Development Manager  
Lockheed Martin Undersea Systems in Riviera Beach, Florida



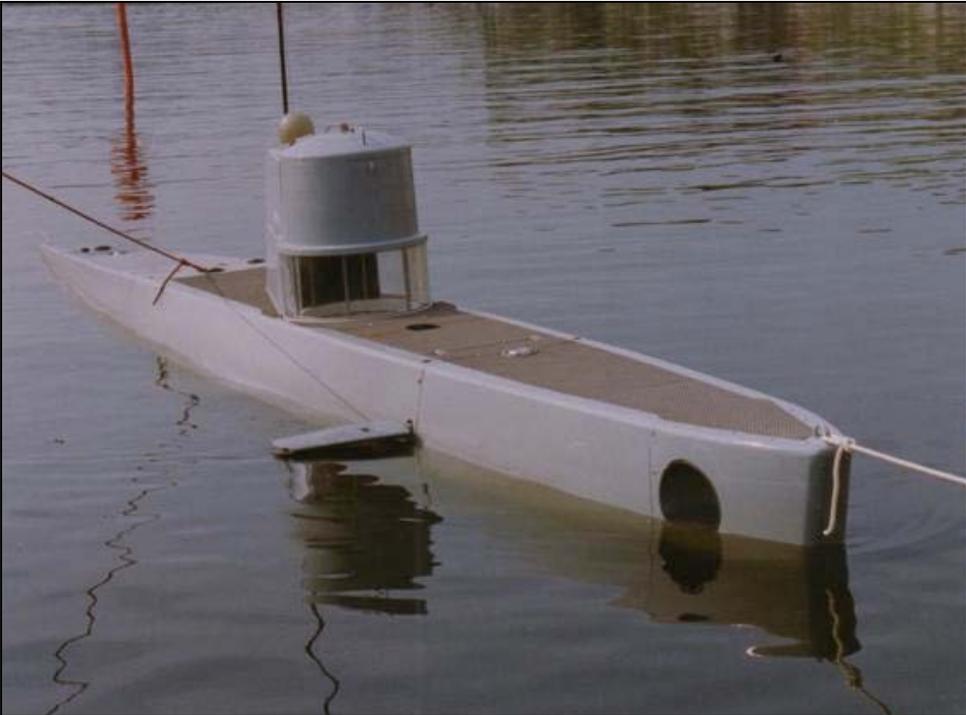
POC:  
Mr Brett Phaneuf, President  
Submergence Group in Chester, CT  
[brett@submergencegroup.com](mailto:brett@submergencegroup.com)





Diesel-Electric Submarine, *S101*





Diesel-Electric Submarine, *S102*





Diesel-Electric Submarine, *S103*





Diesel-Electric Submarine, AP6





Highly portable and easy to deploy with existing infrastructure, the mission-reconfigurable submarine, S201, is an ideal platform for operations in littoral waters.





*S201* has a low radar cross-section when surfaced, and with appropriate camouflage it is nearly impossible to detect.

When submerged, *S201* is nearly undetectable under propulsion and silent when bottomed to collect data.

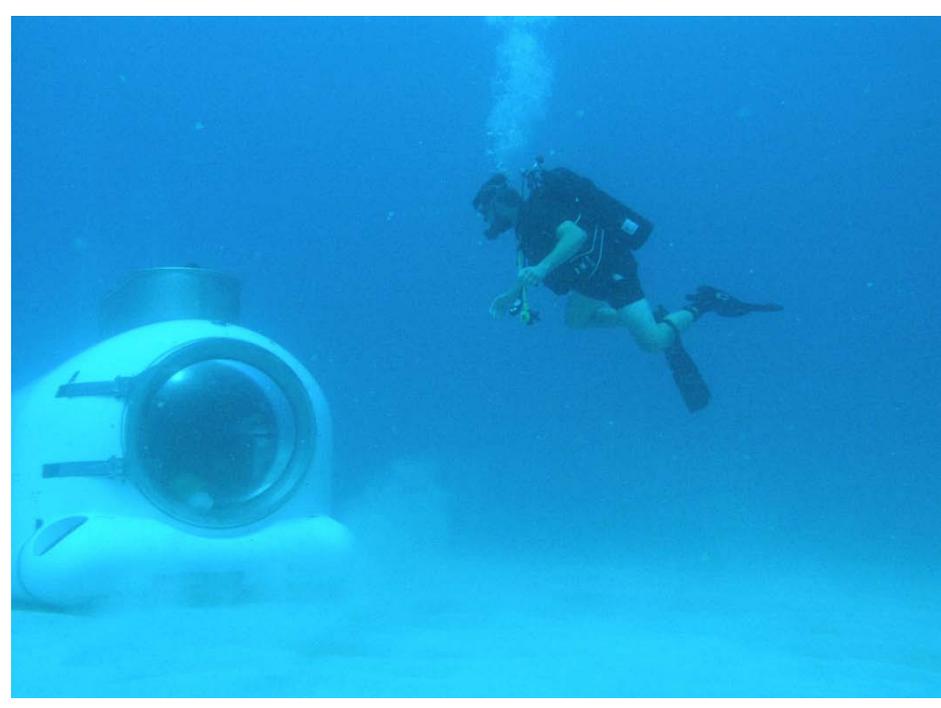
A comprehensive suite of active acoustic systems are installed aboard *S201* and additional active or passive systems may be added with little cost or engineering effort.

# S301, Shallow Water Combat Submersible Technology & Capability Demonstrator

Designed for launch & recovery from a dry-deck shelter and/or D5 missile tube

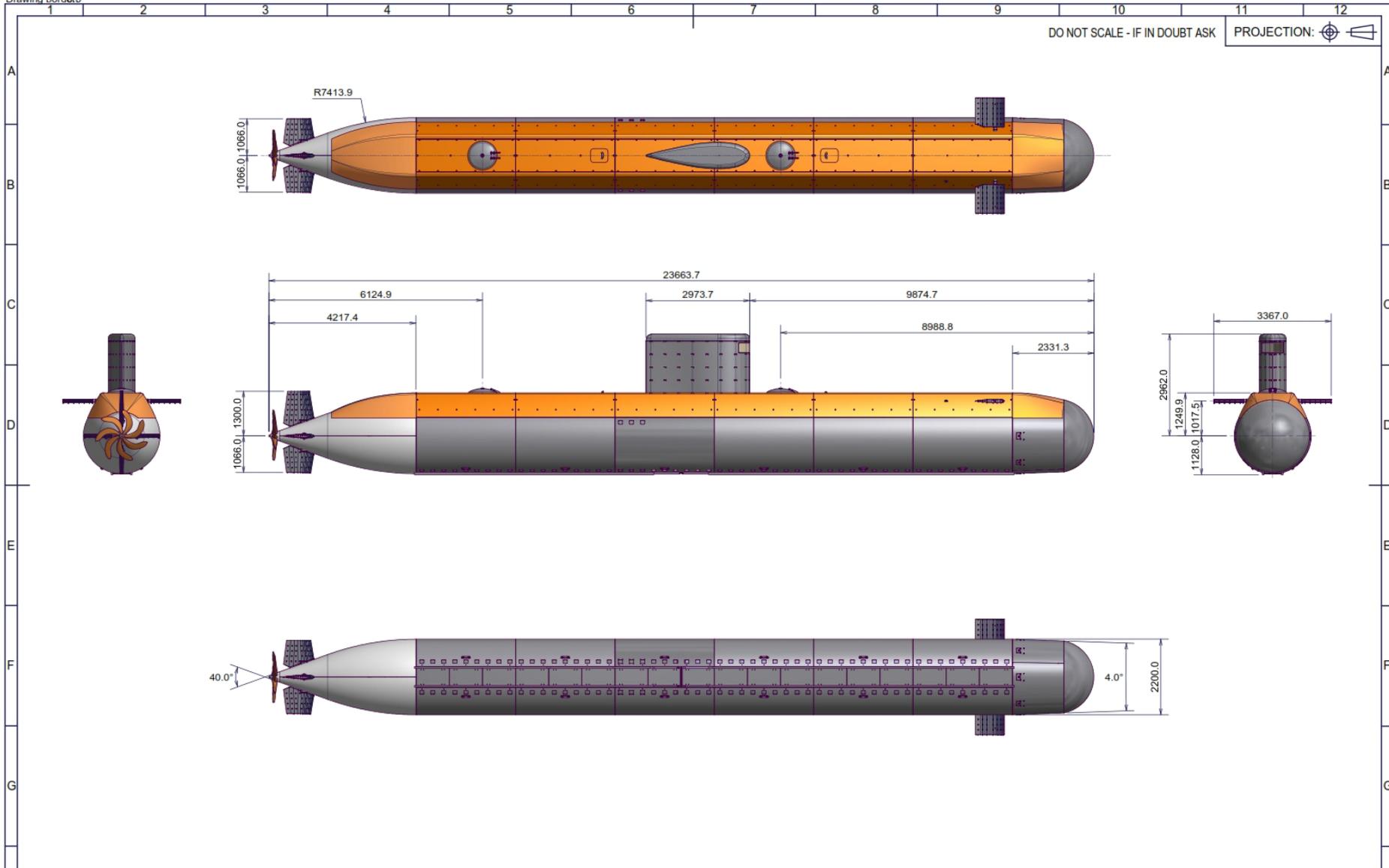


Length OA	-	6.5m
Beam	-	2.34m
Height OA	-	1.75m
Crane Weight	-	13,000 kg nominal
Maximum operating depth	-	300 meters seawater
Surface Speed	-	Up to 6 knots (estimated)
Submerged Speed	-	TBD
Submerged Power Endurance	-	At 5knts: approx 30 hours, 150 nm
Complement	-	Two pilots & six divers



# MASTT

## Mobile Anti-Submarine Training Target



Latest Issue	Initials	Name	Date
Designed by:		J. Ramsay	08/09/2010
Drawn by:		J. Ramsay	
Checked by:		P. Moorhouse	13/06/2011
Approved by:		P. Moorhouse	13/06/2011
First Issued		Drawing Status	
		WorkInProgress	

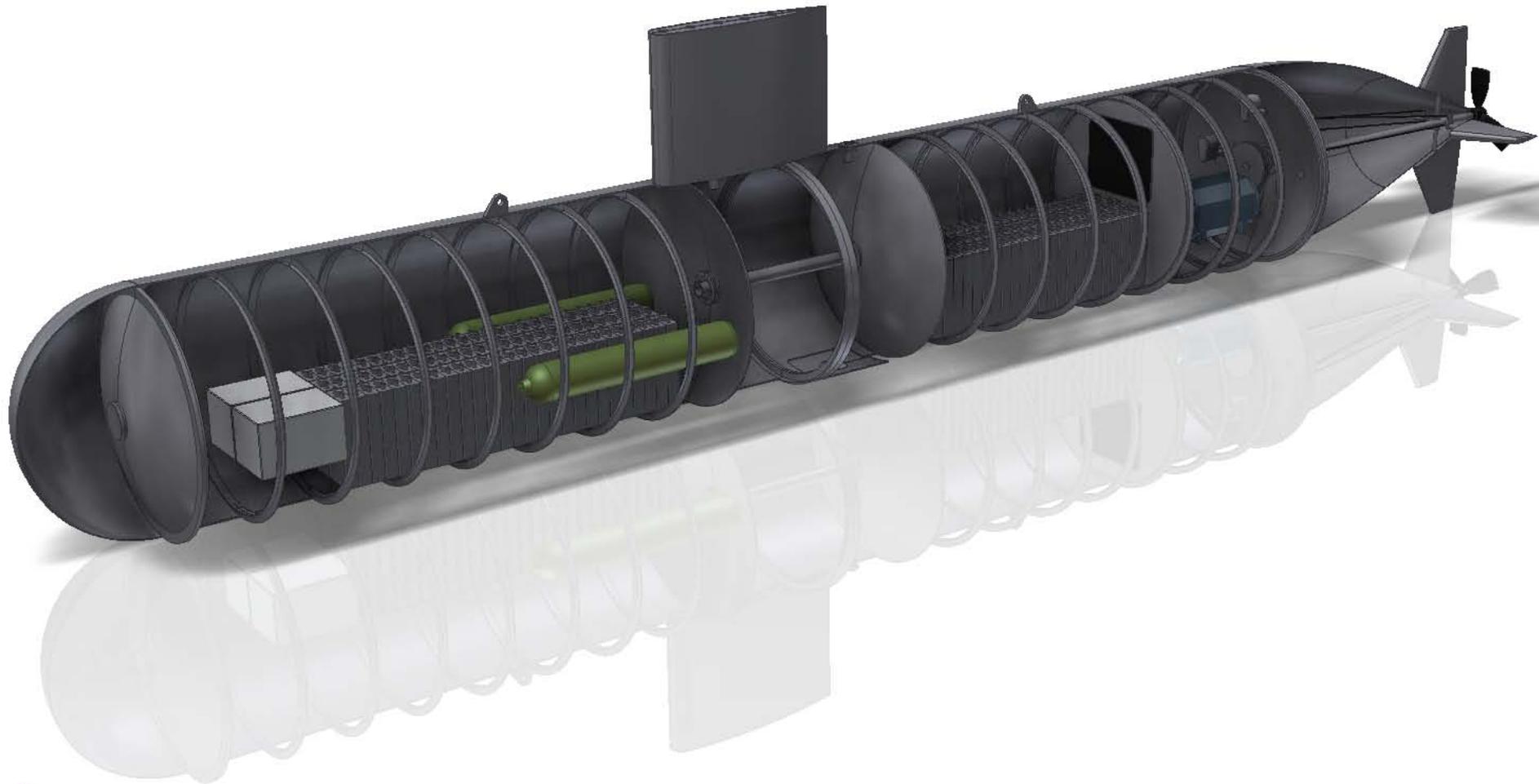
GENERAL FINISH	3.2	UOS
TOLERANCES (UOS)		
SIZE	0 0.0 0.00	
BELOW 150	±0.5 ±0.2 ±0.1	
150-1000	±1.0 ±0.5 ±0.25	
OVER 1000	±2.0 ±1.0 ±0.5	
Angular Tolerance	± 0.5°	
All Dimensions in mm U.O.S		

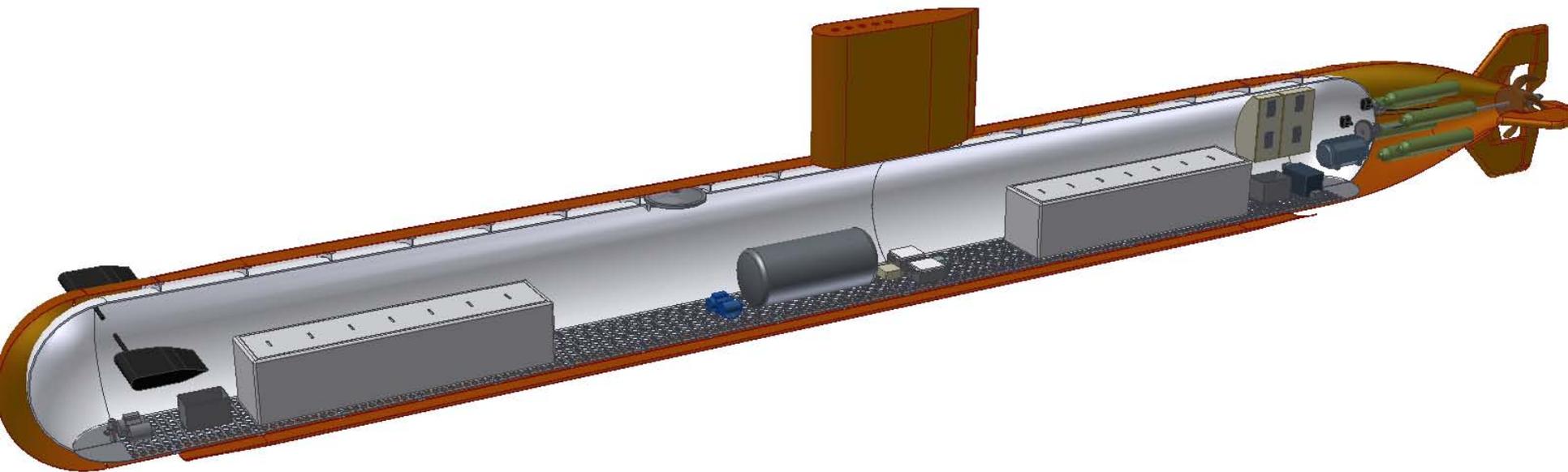


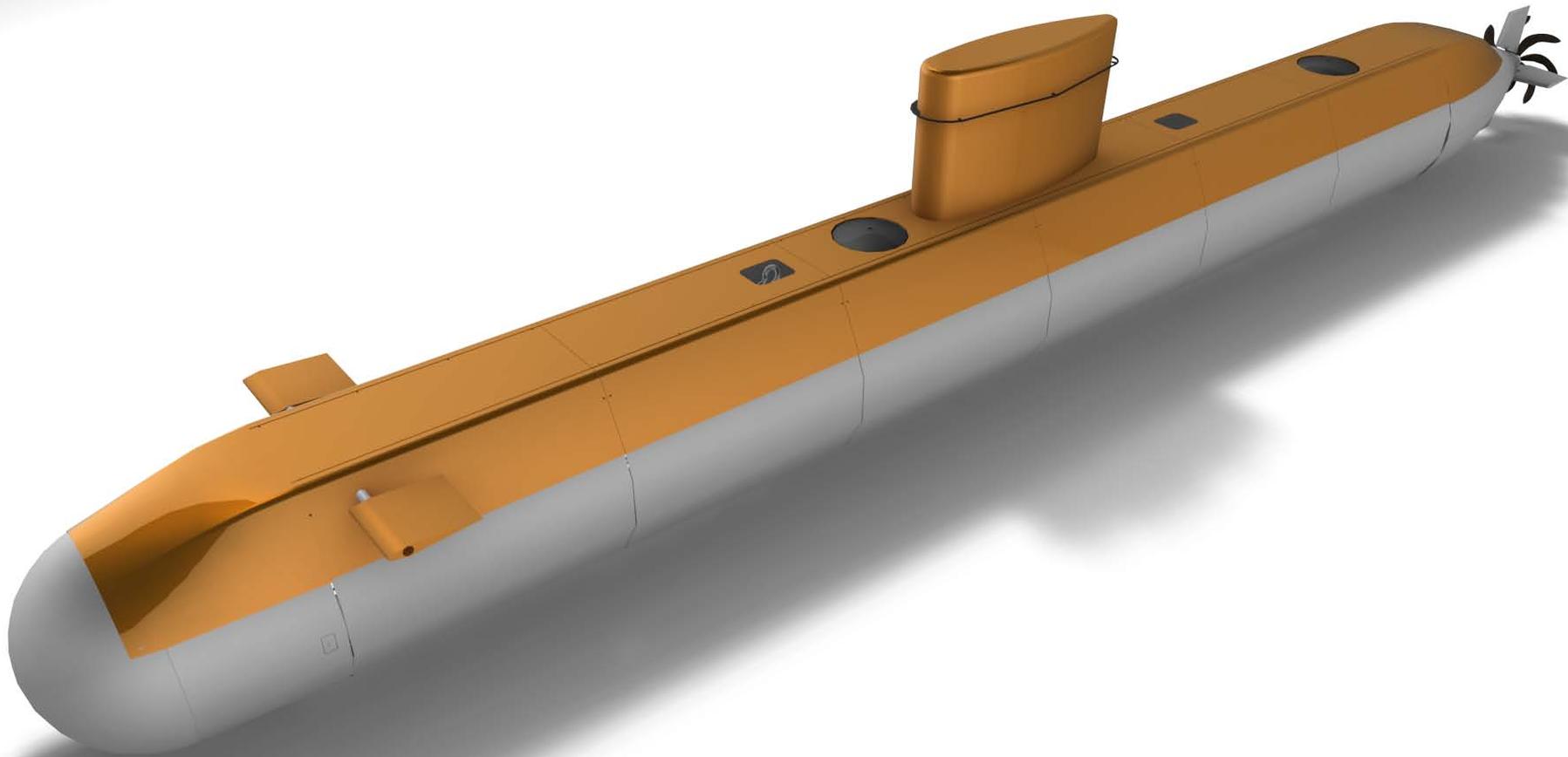
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PL0 7SQ  
Tel: +44 1752 696069

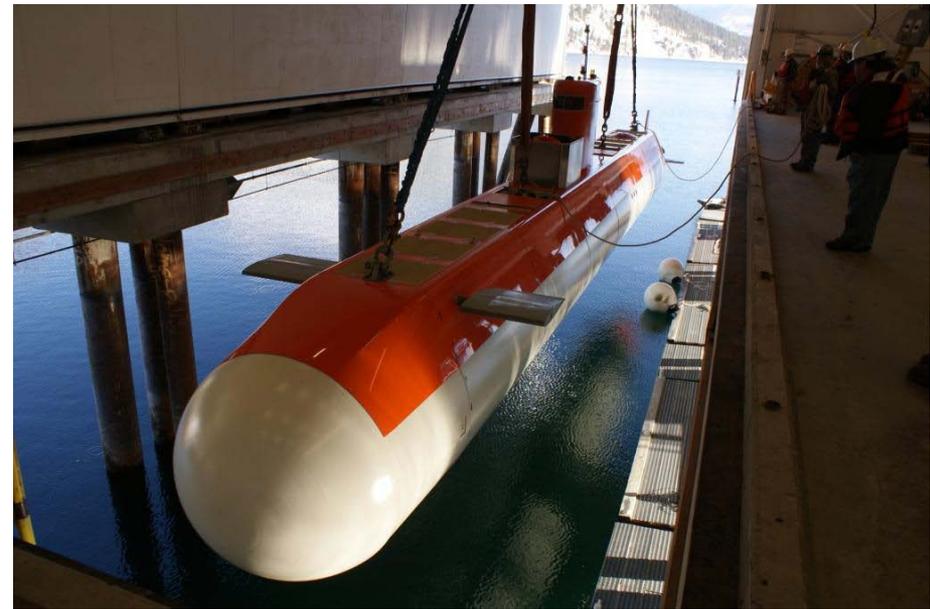
Project: MASTT	Mass: 61800.000 kg
Drawing Title: MASTT General Arrangement	
Part Number: AST-GA-00-01	Rev. 2.0
Sht No. 1 of 1	



















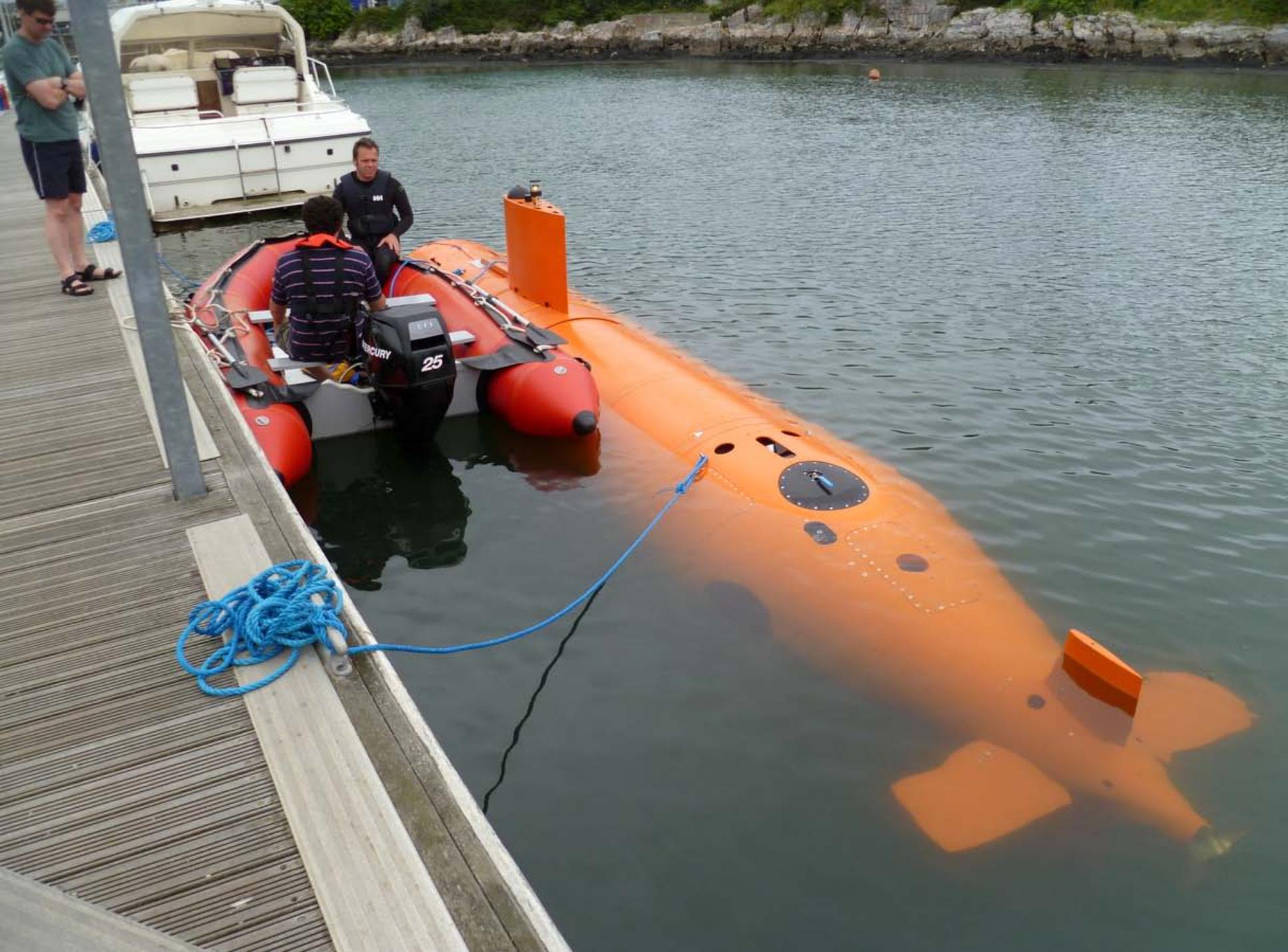


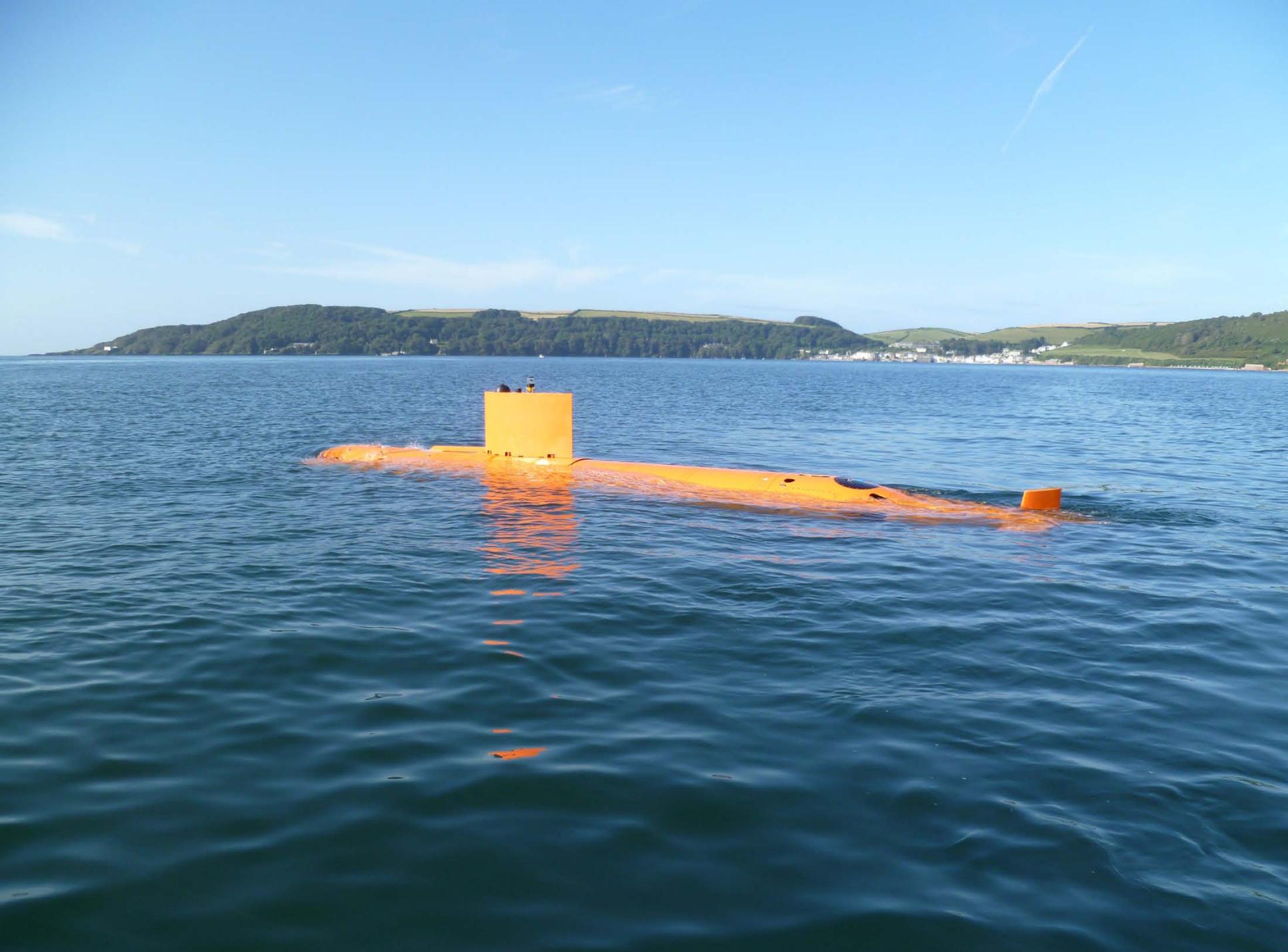
FAST TACK YACHTS

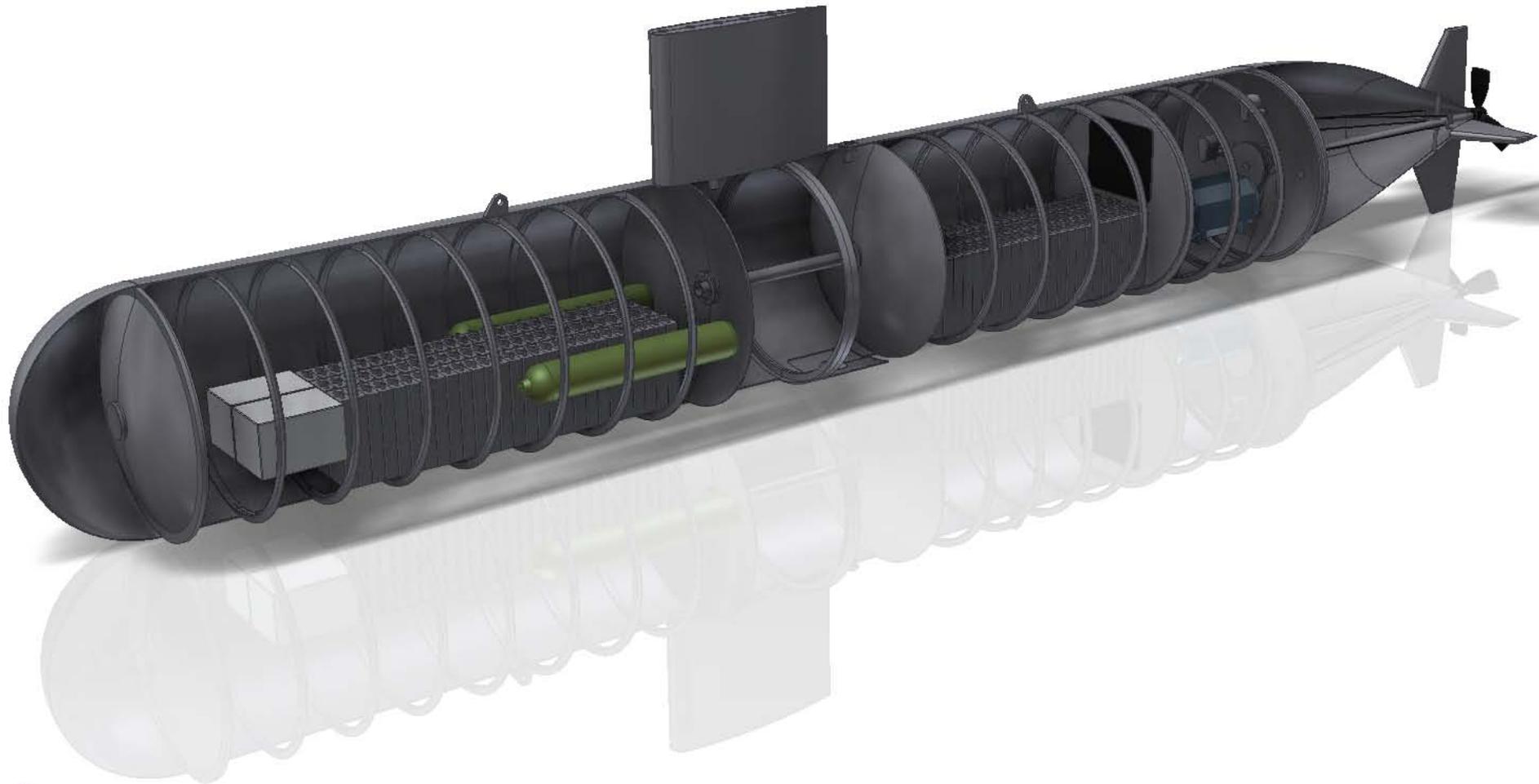
01752 253191 | 07960 629000

NEW ZEALAND

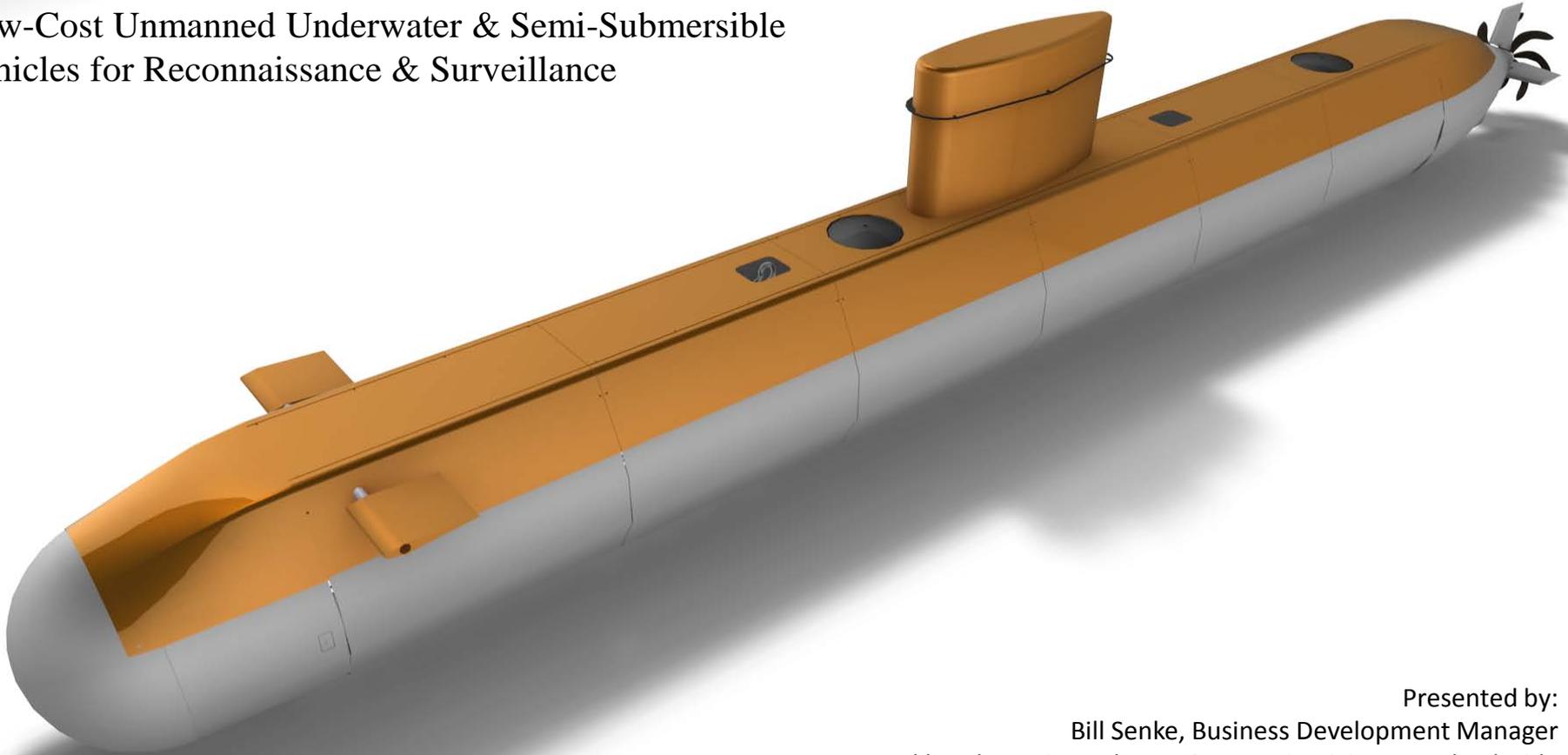
EXTREME







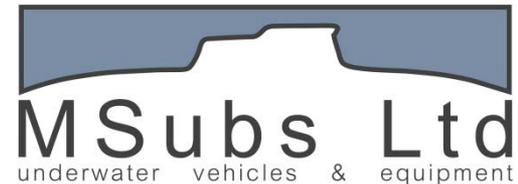
Low-Cost Unmanned Underwater & Semi-Submersible  
Vehicles for Reconnaissance & Surveillance



Presented by:  
Bill Senke, Business Development Manager  
Lockheed Martin Undersea Systems in Riviera Beach, Florida

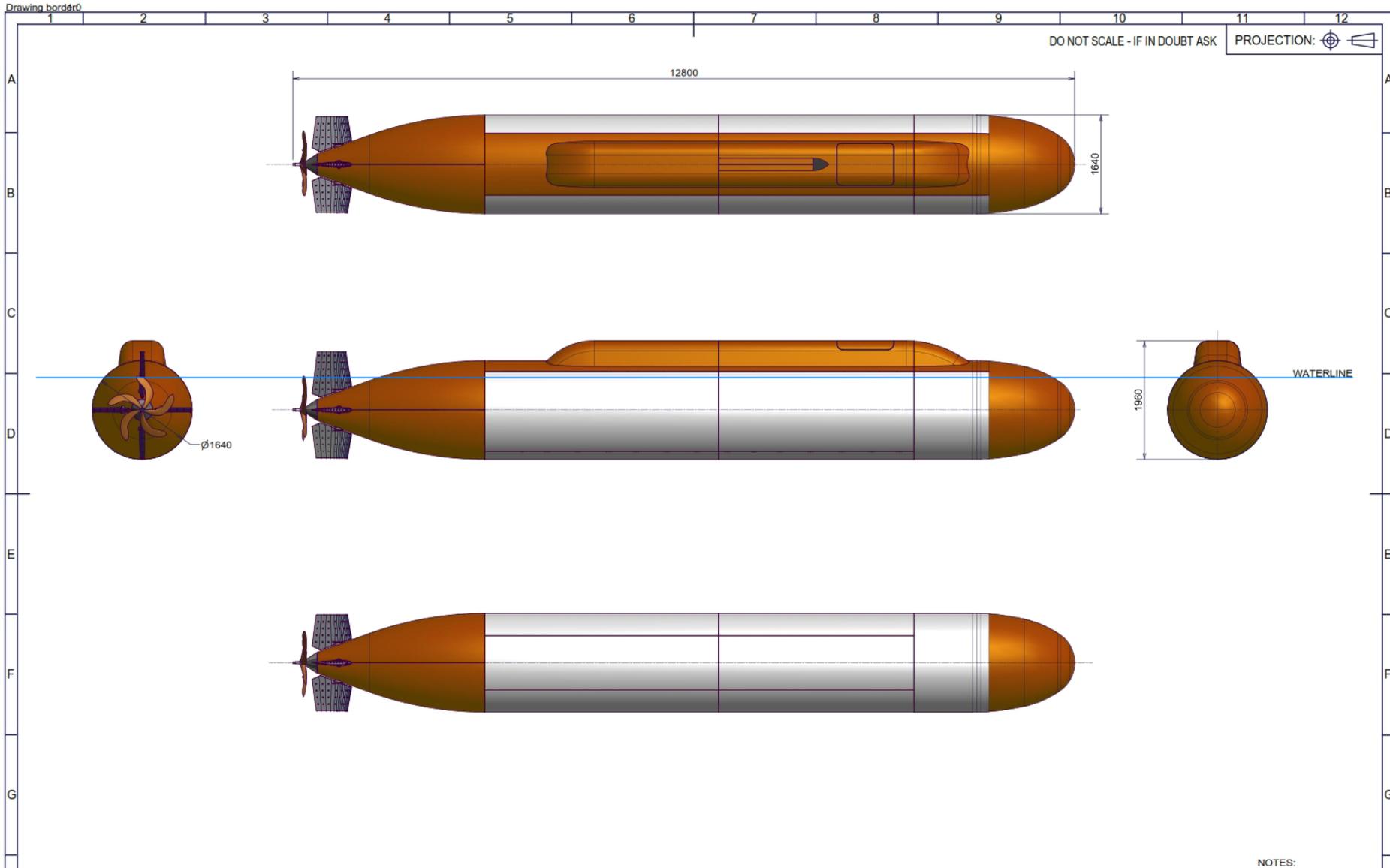


POC:  
Mr Brett Phaneuf, President  
Submergence Group in Chester, CT  
[brett@submergencegroup.com](mailto:brett@submergencegroup.com)



## S201 ~ Experimental Research Transformational Submarine

- Portable
- Low Cost
- 305m/1000ft Depth Rating
- 150 Nautical Mile Range
- 24 Hours Submerged Duration
- Autonomous operation
- Length: 9 meters
- Beam: 1.65 meters
- Height: 1.85 meters
- Weight: 9 tons
- Cruising Speed: 5 knots
- Life Support: 240 man hours



NOTES:  
DISPLACMENT - 15,000L

Latest Issue	Initials	Name	Date
Designed by:		J. Ramsay	22/07/2009
Drawn by:		J. Ramsay	
Checked by:		P. Moorhouse	15/09/2011
Approved by:		P. Moorhouse	15/09/2011
First Issued		Drawing Status	Released

GENERAL FINISH $\frac{3.2}{\sqrt{R}}$ UOS			
TOLERANCES (UOS)			
SIZE	0	0.0	0.00
BELOW 150	$\pm 0.5$	$\pm 0.2$	$\pm 0.1$
150-1000	$\pm 1.0$	$\pm 0.5$	$\pm 0.25$
OVER 1000	$\pm 2.0$	$\pm 1.0$	$\pm 0.5$
Angular Tolerance $\pm 0.5^\circ$			
All Dimensions in mm U.O.S			

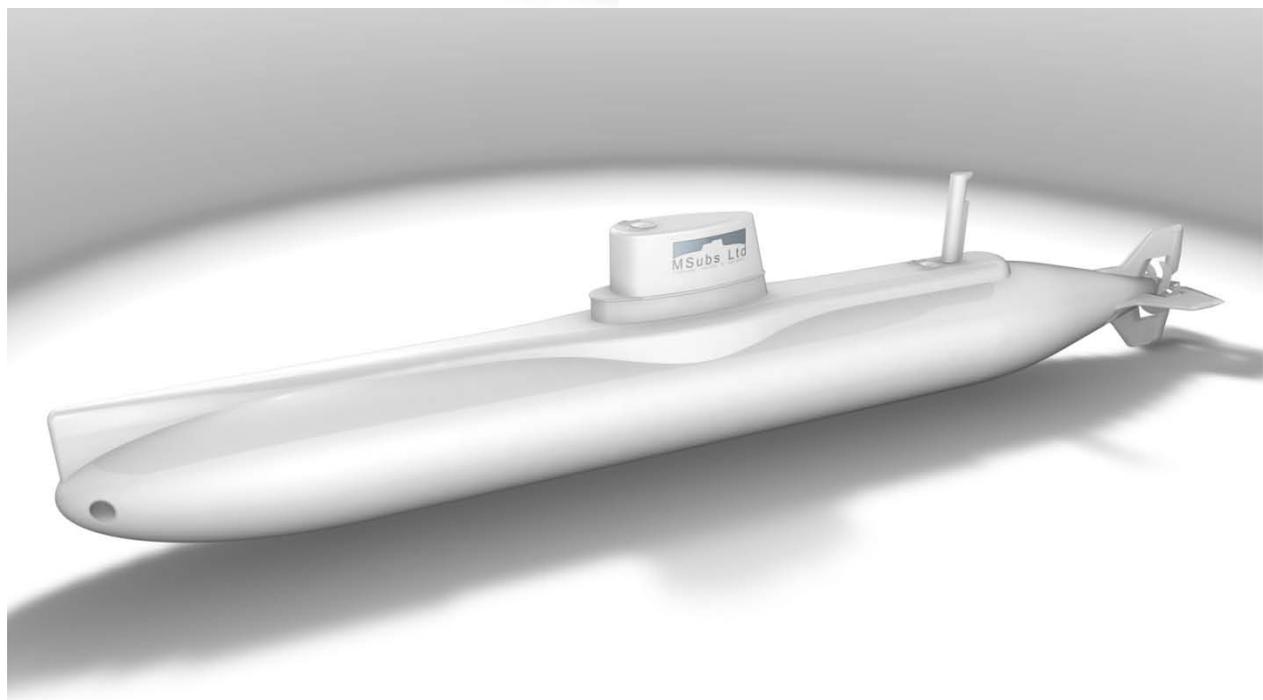
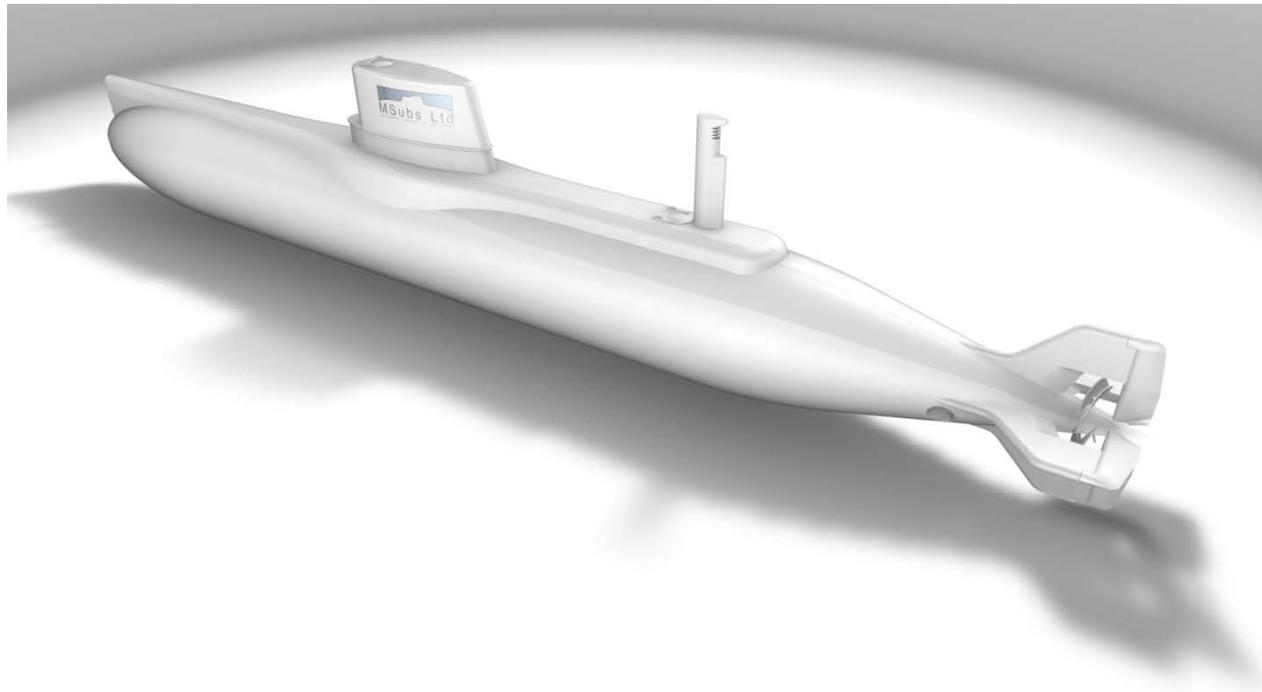


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PL6 7SQ  
Tel: +44 1752 696069

Project: S201X	Mass: 15375.000 kg
Drawing Title: S201X General Arrangement	
Part Number: 201X-GA-00-01	Rev. 1.0
Sht No. 1 of 1	

Modifications



Drawing border:

Drawing Number: Babcock

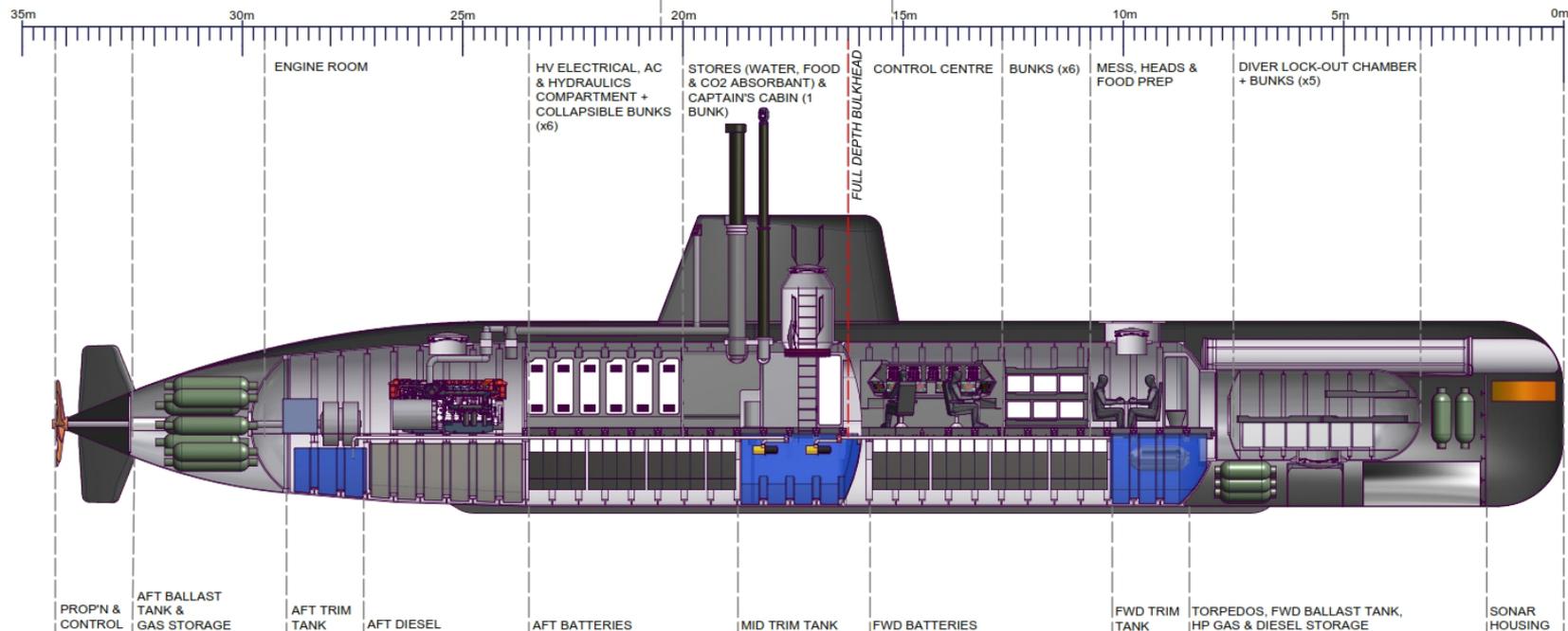
DO NOT SCALE - IF IN DOUBT ASK

PROJECTION: 

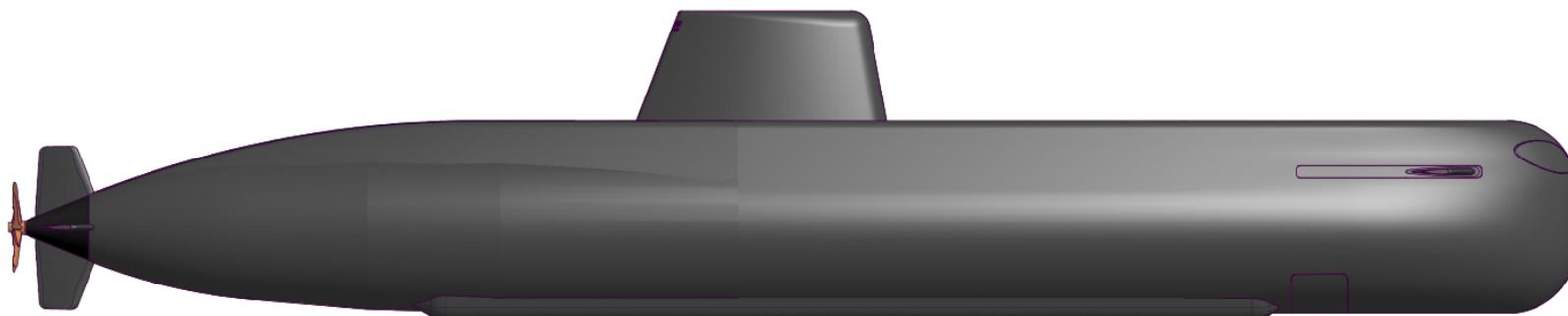
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Broadley Industrial Park,  
Roborough, Plymouth,  
PL6 7SQ  
Telephone +44  
1752 696069

CONNING TOWER, ESCAPE HATCH,  
PERISCOPE, SNORKEL & EXHAUST



NOT FOR MANUFACTURE



Latest Issue	Initials	Name	Date
Designed by:		J. Ramsay	29/03/2010
Drawn by:		J. Ramsay	
Checked by:		P. Moorhouse	
Approved by:		P. Moorhouse	
First Issued		WorkInProgress	

GENERAL FINISH	$\frac{3.2}{\sqrt{A}}$	UOS
TOLERANCES (UOS)		
SIZE	0	0.0 0.00
BELOW 150	$\pm 0.5$	$\pm 0.25$ $\pm 0.125$
150-1000	$\pm 1.0$	$\pm 0.5$ $\pm 0.25$
OVER 1000	$\pm 2.0$	$\pm 1.0$ $\pm 0.5$
Angular Tolerance $\pm 0.5^\circ$		

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Original Drawing Size A2	Dimensions not to scale	Scale as Shown
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All Dimensions in mm Unless Otherwise Stated		

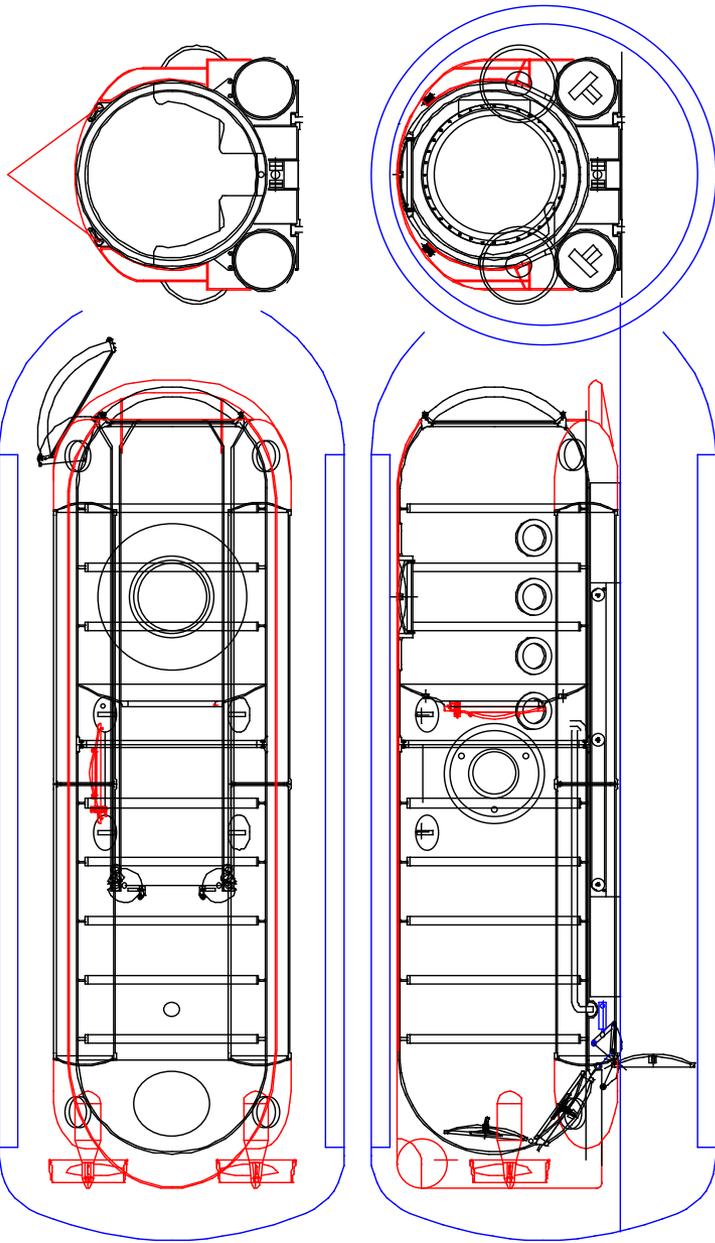
Project: S301
Drawing Title:
Drawing Number: Babcock
Rev. A



Diesel-Electric Submarine, *FC01*



D5 Missile Tube



Dry-Deck Shelter

