



## SONAR EMILY



June 2018

*Presented to:*

Undersea Defense Technology (UDT) 2018  
SEC Glasgow, Scotland

*Presented by:*

Tony Brescia, AIR 4.5 S&T Lead

Anthony Mulligan, Robert Lautrup, Jaime Lara-Martinez,  
Drey Platt Hydranalix, Inc.



# Development Background



- 2010: First EMILY based SONAR System for Lake Imja, Mount Everest, Nepal. Partnered with SeeByte and Tritec Corporation
- 2012: U.S. NAVAIR Autonomous Mobile Buoy Platform based Humminbird ION
- 2014: NAVAIR program initiated for side scan sonar. First production unit in 2015
- 2017: Humminbird ION Imaging SONAR
- 2018: Humminbird Helix 12

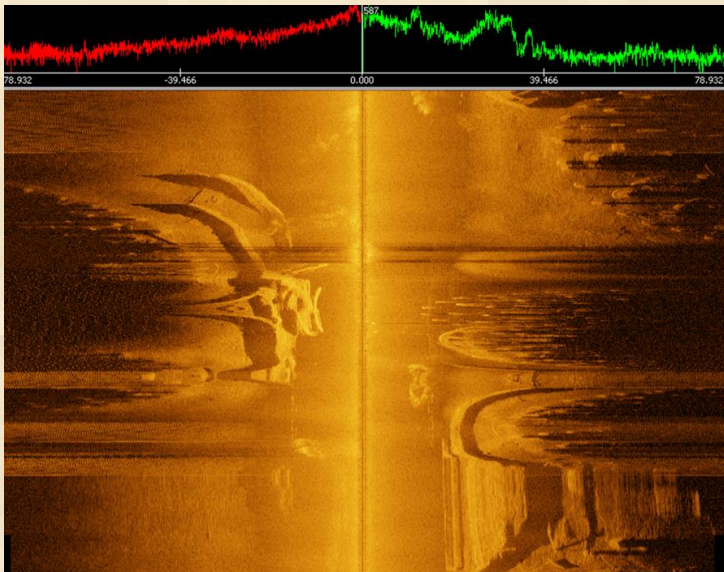




# SONAR EMILY Configuration



15 KG  
Weight



5 KG  
Weight







# System Features



- Dash Speed of 18 mph
- 3 hour imaging time at 1.75 knots, 1 hour charge, 3 minute battery change
- Night Navigation Lights
- Uses Commercial Nautical Charts
- Flag or internal antennae
- 2.4GHz and 5.8GHz command control and sonar link
- Blue-Tooth connectivity
- Shore, Boat/Car, battery powered ground station
- Can Check on Commercial Airline for Domestic or International Travel
- 40 Kg total Expeditionary Mission Pack-out weight



# Operational Features



- Deploys in minutes off pier or small RHIB boat
- Operates in close tight quarters or open ocean
- Can operate safely with Divers in the water
- Battery change is fast and easy
- 2D Side Scan Imaging at 1150kHz
- Side Imaging (side to side coverage)
  - 455kHz: 800 feet
  - 1.2 MHz: 250 feet
- Down Imaging (depth)
  - 455kHz: 400 feet
  - 1.2 MHz: 125 feet





# Systems Advantages



- Low Procurement and Operational Cost
- One Man Operation
- Simple Training requirements
- Low Maintenance Regiment
- Modular Sub-System Components
- Commercial Software for Maps and Post Processing



# Questions?



Contact for a demonstration

Visit Hydronalix Booth





# Humminbird Helix Imaging SONAR



- 2D Side Scan Imaging at 1150kHz
- Side Imaging (side to side coverage)
  - 455kHz: 800 feet
  - 1.2 MHz: 250 feet
- Down Imaging (depth)
  - 455kHz: 400 feet
  - 1.2 MHz: 125 feet

