New Winch Will Enable Less Expensive Maintenance of RMS Component

**Status:** Pending Implementation

### PROBLEM / OBJECTIVE

The Navy’s Remote Minehunting System (RMS) consists of a Remote Multi-Mission Vehicle (RMMV) towing an AN/AQS-20 Volume Depth Sonar. Currently there is no winch that meets Navy requirements for conducting shipboard periodic maintenance on the RMS tow cable. The winch that most closely met the requirements was more expensive and required extensive non-recurring engineering and integration. A Navy Metalworking Center (NMC) project team developed and tested a winch and ruggedized container that meets all functional, dimensional, and environmental requirements and costs less to construct. The winch and container will be implemented by the RMS Program Office (PMS 403) and In-Service Engineering Agent (ISEA) to support RMS operations and deployment.

### ACCOMPLISHMENTS / PAYOFF

**Process Improvement:**

The project team started with a search of commercial off-the-shelf winches that would meet the specific requirements, but found none. They then developed a winch, leveraging the knowledge and experiences of Appleton Marine, Inc., to achieve winch requirements. Midway through the program, additional requirements were levied to make the system I-Flyaway capable. The project team addressed these additional requirements by developing an integral container around the winch to minimize weight while maintaining structural integrity. The system will be transitioned to the ISEA to support RMS operations.

**Implementation and Technology Transfer:**

Implementation is scheduled for July 2016, when the Tow Cable Maintenance Winch (TCMW) is transitioned to the ISEA for maintenance of the RMS tow cable. Based on successful factory acceptance testing in March 2016, NAVSEA asked that the winch be transferred to NSWC Panama City Division for use with the RMS.

### Expected Benefits and Warfighter Impact:

- Achieved a unit purchase price of < $200K
- Adjustable cable speed and tension
- Reduced labor required for cable maintenance
- Improved operational safety

### TIME LINE / MILESTONE

**Start Date:** February 2014  
**End Date:** July 2016

### FUNDING

- **Navy ManTech Investment:** $0.0M
- **Cost Share: (TIPS)** $1.5M

### PARTICIPANTS

- **PMS 403**
- **PMS 420**
- **Naval Surface Warfare Center, Panama City Division**
- **Lockheed Martin Mission Systems and Training**
- **NMC**
- **Appleton Marine, Inc.**
- **ONR Navy ManTech**

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