A/N37U-1 Mine Clearing Set (MCS) - Archived 6/2011

Outlook

- No further production forecast
- Last known order was to Denmark and completed in 2005
- At one time there was talk of possible sales to Greece and Turkey, but nothing seems to have developed
- EDO acquired by ITT in December 2007
- This report will be archived in June 2011

Orientation

Description. The A/N37U-1 Mine Clearing System (MCS) is a towed, controlled-depth minesweeping system. Originally designed to be towed by helicopters, it can also be towed by surface ships.

Sponsor

U.S. Navy

U.S. Naval Sea Systems Command
Program Office for Mine Warfare
PMS210
Washington, DC

U.S. Naval Surface Warfare Center
Coastal Systems Station
Panama City, FL

U.S. Naval Surface Warfare Center
Bethesda, MD

Status. In operational service.

Total Produced. An estimated 60 units believed produced as of June 2010.

Application. Helicopter-based airborne minesweeper for use aboard the MH-53E, and possibly other helicopter platforms. The A/N37U-1 surface version may also be used as a towed-sweep from the tail of the MHC-51 class coastal minehunter ship. The Royal Danish Navy is using a modified version to support its 28-meter Minor Ship Drone, a remote-control surface craft.

Price Range. One early estimate put the cost of the A/N37U-1 at $526,666, based on per-unit cost averaging using U.S. contract information from January 1997. The sale to Denmark in April 2002 yielded an average unit cost of $1.58 million for a specifically modified version.

Contractors

Prime

ITT Electronic Systems Mine Defense Systems	http://www.es.itt.com, 430 West 5th Street, Suite 600, Panama City, FL 32401 United States, Tel: + 1 (850) 873-8400, Fax: + 1 (850) 873-8401, Prime

A/N37U-1 Mine Clearing Set (MCS)

Subcontractor

Saab Underwater Systems AB	http://www.saabgroup.com, Agneshögsgatan 273, PO Box 910, Motala, 591 29 Sweden, Tel: + 46 0 141 224 500, Fax: + 46 0 141 211 179, Email: info.underwater@saabgroup.com (Shipboard Winch and Optional Cutter)

Comprehensive information on Contractors can be found in Forecast International's "International Contractors" series. For a detailed description, go to www.forecastinternational.com (see Products & Samples/Governments & Industries) or call + 1 (203) 426-0800.

Contractors are invited to submit updated information to Editor, International Contractors, Forecast International, 22 Commerce Road, Newtown, CT 06470, USA; rich.pettibone@forecast1.com

Technical Data

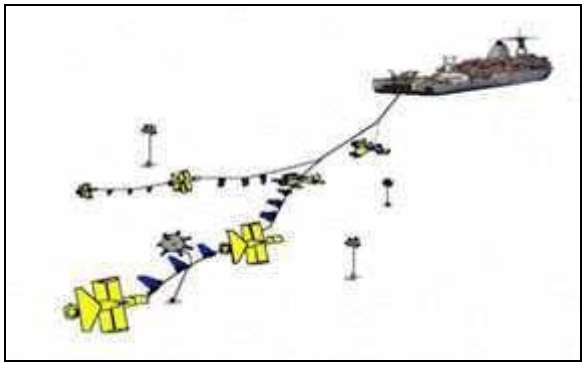
Operational Characteristics. The A/N37U-1 is a helicopter-towed minesweeping system that uses sweep wires armed with explosive cutters to sever mine moorings. Four electromechanical otters divert a pair of segment sweep wires into a double echelon and control the depth of the mid and aft portions. A single electromechanical depressor, located near the sweep wire apex, maintains depth at the forward end of the sweep. The automatic control capability of the otters and depressor enables the sweep assembly to operate at any depth without the floats required by comparable systems. A calibration unit is provided to set the mission sweep depth into memory and monitor the depth control electronics. The new software for the calibrator unit provides the calibrator unit mission requirements.

Variants/Upgrades

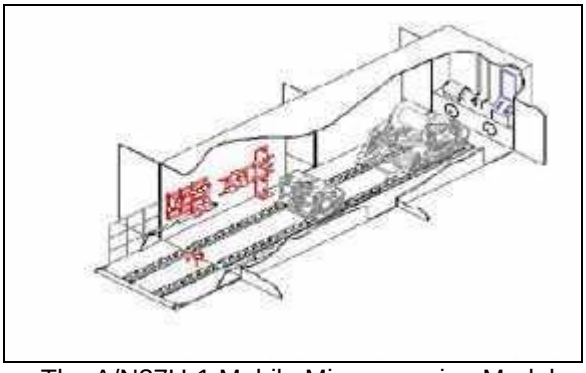
A/N37U-1. The A/N37U-1 has an acoustic depth monitoring system and a data logging function for real-time depth monitoring and post-mission analysis. The acoustic depth monitoring function utilizes five different frequency transmissions to transmit the five hydrodynamic body depths during a mission. The data-logging function records depth and temperature data.

A/N37U-1 Mobile Minesweeping Module. The Mobile Minesweeping Module (MMM) is container-sized to house the A/N37U-1. The MMM itself is self-contained to provide a modular minesweeping system that can convert suitable surface platforms into operational minesweepers.

SLQ-53. This system is reportedly a surface-ship version of the A/N37U-1 and is designed to be a modular, single-ship, deep-sweep system.

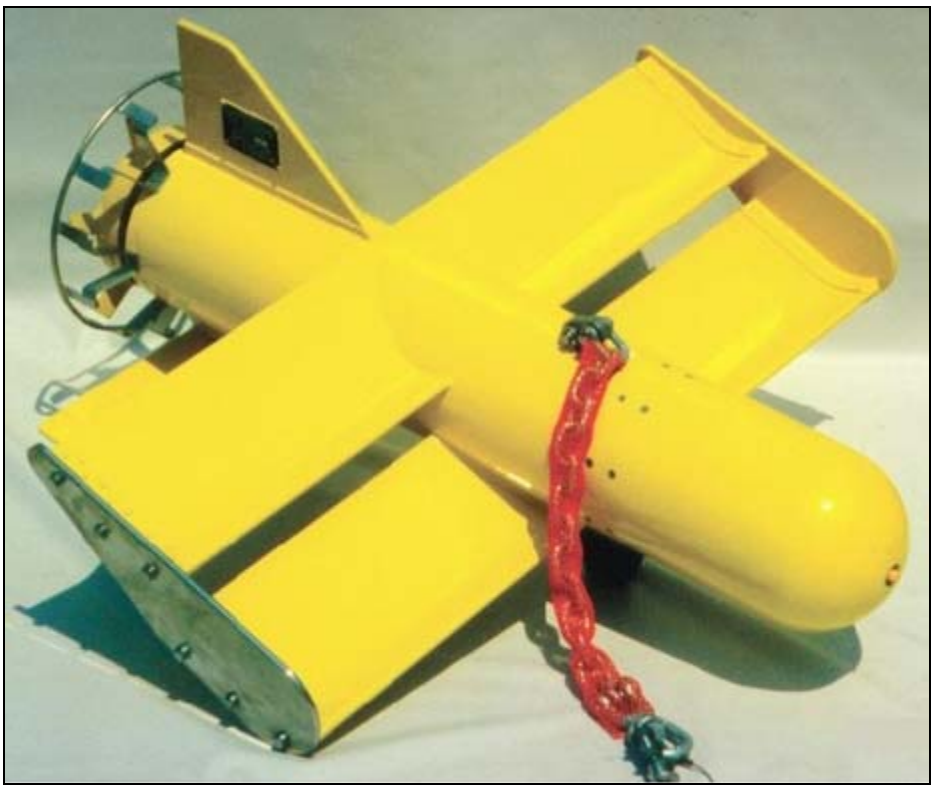


The A/N37U-1 Mine Clearing System is a lightweight, deep-sweeping system.



The A/N37U-1 Mobile Minesweeping Module (MMM) is a container sized to house the A/N37U-1 and to provide a modular minesweeping system that can convert suitable surface platforms into operational minesweepers.

Source: Government Systems Segment



A/N37U-1 Mine Clearing System (MCS)

Source: ITT Electronic Systems Mine Defense Systems

A/N37U-1 Mobile Minesweeping Module

	Specifications
Diameter	9.8 ft
Weight	850 lb
Tow speed (unloaded)	12 kt
Tow speed (loaded)	3 kt
Trailer assembly tow speed	65 mph
Transmitter range	1,000 ft
Buoyancy	5,600 lb
Winch lift speed	30 ft/min

Program Review

Background. Many world navies, and especially the U.S. Navy, have had an ongoing requirement to expand helicopter MCM by developing a more effective capability to sweep mines. Some of these developments included the A/N37U-1 Controlled Depth Moored Sweep. In the early days of U.S. Navy MCM development, this project was under PE#0604373N Airborne Mine Countermeasures. By FY87, the Navy had conducted a TECHEVAL of the A/N37U-1, with an OPEVAL in FY88. By FY92, a contract had been awarded for additional A/N37U-1 engineering development models (EDMs). Further technical and operational testing was completed in FY93.

Additional TECHEVAL and OPEVAL testing of the A/N37U-1 was conducted during FY94. The testing proved successful enough to obtain approval to begin full-rate production.

A/N37U-1 Mine Clearing Set (MCS)

The last known U.S. Navy contract delivery was made around March 2000. No U.S. orders have been confirmed beyond this last production run.

Denmark Buys 10 Mineclearing Sets

In April 2002, the Royal Danish Navy announced a $15.8 million procurement contract for 10 A/N37U-1 systems to be modified to support that Navy's 29-meter Minor Ship Drone, a remote-control surface craft. Deliveries started in 2002 and were completed in 2005. The MCM system was reportedly being strongly marketed to Greece and Turkey; however, no sales have been reported.

GSS Acquired by Anteon

In June 1999, Anteon International Corporation announced that it had acquired Analysis & Technology Inc, the parent company of GSS.

Anteon Acquired by General Dynamics

In June 2006, General Dynamics completed its $2.2 billion acquisition of Anteon International Corporation, which was combined with the General Dynamics Network Systems business unit to form a new organization known as General Dynamics Information Technology, headquartered in Fairfax, Virginia. The new organization maintains a significant business operation in Needham, Massachusetts, where General Dynamics Network Systems was headquartered. The acquisition was first announced in December 2005. Other divisions were believed to have been sold off separately, such as the original GSS, which apparently was sold to EDO.

ITT Completes Acquisition of EDO Corporation, Broadens High-Tech Aerospace and Defense Portfolio

In December 2007, ITT Corporation announced it had completed the acquisition of EDO Corporation for $56.00 per share plus the assumption of debt, which values the transaction at approximately $1.7 billion. The acquisition was ITT's largest since becoming an independent company in 1995.

Funding

Development funding for this effort was last documented in FY97. Any further U.S. procurement funding, such as for support and services, is likely buried within various mine countermeasure budget lines that are not specifically broken out.

Contracts/Orders & Options

Contractor	Award ($ millions)	Date/Description
Anteon International	15.8	Apr 2002 – A four-year procurement contract for 10 systems modified to support the Danish Minor Ship Drone. Contract completed in 2005.

Timetable

Month	Year	Major Development
	1987	A/N37U-1 prototype test successful
Jul	1992	Procurement order for production of 18 A/N37U-1 units (plus one spare)
Mar	1994	A/N37U-1 TECHEVAL
May	1994	A/N37U-1 OPEVAL
	1994	A/N37U-1 full-rate production approval
Oct	1994	Order for an additional 11 A/N37U-1 units
1 Qtr	1996	Milestone III rescheduled
Jan	1997	Procurement order for an additional 15 A/N37U-1 units
	2000	Last confirmed U.S. production contract completed
Apr	2002	Denmark orders 10 modified units

Worldwide Distribution/Inventories

The **U.S. Navy** is the prime user of the A/N37U-1. The **Royal Danish Navy** ordered 10 modified units in April 2002 to support its Minor Ship Drone. **Greece** and **Turkey** were reportedly interested in the system at one time.

Forecast Rationale

No further production is forecast for the A/N37U-1 Mine Clearing Set. Not long ago there was talk in the industry of potential sales to Greece and Turkey, playing off the defense rivalry between these two nations; however, such a possibility appears to have turned to dust like so many of that region's antiquities. The only foreseeable market at the moment will be for spares and maintenance.

Barring a sudden surge of activity, this report will be archived next year in June 2011.

Ten-Year Outlook

No additional production is forecast at this time.

* * *