MODEL 997
HULL-MOUNTED SONAR (HMS)

Harris Model 997’s scalable architecture provides the best combination of cost and performance for new construction and modernization programs. The selection of array sizes provides the ideal solution for ships of any size – from offshore patrol vessels (OPVs) to cruisers.

BENEFITS

Scalable architecture and array size allows navies to choose the system that matches mission requirements

Active sonar operates in three frequency bands permitting multiple systems to operate in close proximity

Commercial off-the-shelf (COTS) components and open system architecture (OSA) minimizes costs

Combined frequency modulation (FM) and continuous wave (CW) transmission optimizes sonar coverage for both slow and fast targets

Mine and obstacle detection allows rapid transition to close-in threats

Maintenance of close contact (MCC) feature provides the ability to maintain contact at close range

Model 997 HMS systems are designed to give the maximum performance possible while searching, detecting, tracking, and classifying targets. The system provides an unsurpassed capability to prosecute close-in, anti-submarine warfare (ASW) threats and defend against torpedoes while avoiding mines and underwater obstacles.

Multiple transmission parameters combined with sensitive receivers and optimum signal processing allows maximum target information to be extracted from the acoustic environment.

Harris HMS systems are designed to provide a standoff capability with excellent shallow-water performance against any threat.

UNDERWATER TACTICAL PICTURE (UTP)

The Harris HMS system creates and maintains a complete UTP.

- Creates a comprehensive view of the sonar picture, combat management system (CMS) information and common tactical picture (CTP) on a single display
- Offers additional operator selectable sonar displays
- Integrates all data coming from networked platforms and sensors
- Provides full authority undersea warfare track management and fully-integrated weapon control to the operator, such as torpedo fire control
- Displays overlays of bottom topography, water depth and acoustic performance conditions
- Produces torpedo alerts and mine avoidance data
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FEATURES

Single operator conducts the entire mission from one console.

Data recorders can be used for both mission analysis and operator training.

Built-in test (BIT) isolates faults to a single module.

Logistics support available from totally indigenous to fully supported.

Environmental characteristics:
- Temperature: 0° to 45° C operating
- Humidity: MIL-S-810
- Shock: MIL-S-901C
- Vibration: MIL-STD-167
- MI/EMC: MIL-STD-461/2

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UNDERSEA WARFARE COMBAT SYSTEM: SONAR OPERATOR DISPLAYS

ACTIVE SEARCH DISPLAY
- CW, FM, or combined
- 12-ping history brightness (B) scan

ACTIVE CLASSIFICATION DISPLAY
- CW, FM, or combined
- 3D or 2D history plot

PASSIVE BROADBAND
- Short and long integration
- 3 demodulated noise (DEMON)

UNDERWATER TACTICAL PICTURE
- Landmasses and sea bottom
- Sonar and other CMS contacts

PERFORMANCE PREDICTION DISPLAY
- 3D range-dependent model
- Integrated expendable bathythermograph (XBT) data

MINE AVOIDANCE DISPLAY
- Geographic orientation and chart overlay
- Bottom stabilization

SCALABLE ARCHITECTURE PROVIDES BEST FIT FOR DIVERSE PLATFORMS

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- Ideal solution for platforms with low draft requirements

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About Harris Corporation
Harris Corporation is a leading technology innovator, solving customers’ toughest mission-critical challenges by providing solutions that connect, inform and protect. Harris supports government and commercial customers around the world.

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