

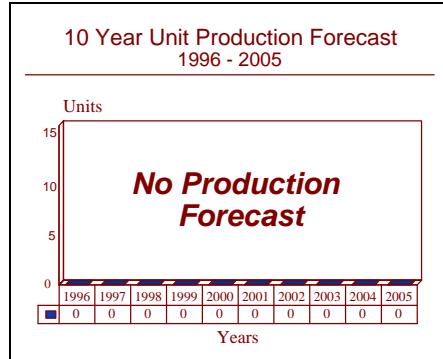
# ARCHIVED REPORT

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## UYH-3(V) - Archived 10/97

### Outlook

- Spares production and maintenance support services
- Technology has become obsolete
- Export sales to lesser equipped navies unlikely
- Program effectively completed



### Orientation

**Description.** The UYH-3 (V) is a magnetic disk memory recorder-reproducer data storage system designed for both shipboard and ground tactical applications.

**Sponsor**

US Navy  
 Naval Sea Systems Command (NAVSEA)  
 Washington, DC  
 USA

**Contractors**

Computing Devices International  
 8800 Queen Avenue South  
 Bloomington, Minnesota (MN) 55431-1996  
 USA  
 Tel: +1 716 677 4070  
 Fax: +1 716 677 0014  
 (Prime Contractor Development/Production)

**Status.** Spares production and maintenance support services.

**Total Produced.** An estimated 744 units produced through 1995.

**Application.** Shipboard and ground-based tactical data storage device.

**Price Range.** Not available.

### Technical Data

**Characteristics.** The UYH-3(V) is a Magnetic Disk Memory Recorder-Reproducer system that interfaces and operates with various computers in many US Navy applications.

The UYH-3(V) provides a complete, large-capacity military disk system in a compact rack or cabinet-

mountable unit. The UYH-3(V) has a total of 823 cylinders, consisting of five recording tracks located under five read/write heads. The five tracks can be written on or read from (consecutively) without moving the positioning arm. The total capacity of each disk unit is 664 million bits. The total useable storage capacity is reduced moderately, depending on spare tracks required and sector



organization on the recording track. The UYH-3(V) can be combined with as many as four Expansion Drive Units, each containing a disk drive and power supply that can increase the total disk storage capacity to 2.65 billion bits.

**Operational Characteristics.** The UYH-3 magnetic disk is cooled by forced-air convection. The pack area is environmentally sealed and has a closed-loop air system with microfiltering to protect the storage media from high humidity, salt, and dust. The disk drive assembly includes the data recording components along with the drive motor and spindle which mounts and drives the removable disk pack. The operator panel on the front controls the system operation, and the disk status panel monitors the operating condition of the disk unit.

Designed to provide easy access, all plug-in modules, circuit card and modular assemblies are accessible from the top of the unit, and power supply modules are accessible from the front using a pull-out drawer. The disk pack area is accessible from the top via a hinged cover.

The controller in the UYH-3(V) has a read-only memory which contains both a microprogram for controlling the operation of the disk system, and a diagnostic microprogram to aid in system maintenance. The disk drive and controller units have a predicted mean-time-between-failure of 3,300 hours.

## Variants/Upgrades

The UYH-3(V) comes in four configurations:

**RD-448(V)/U.** A basic unit with a disk drive assembly, microprogrammable controller, and a 120- or 208-Vac, 400-Hz, three-phase power system.

**RD-482(V)U.** A unit with a disk drive assembly, microprogrammable controller, and a 120- or 280-Vac, 50-/60-Hz, three-phase power system.

**MU-680(V)/U.** An expansion unit with a disk drive assembly and a 120- or 280-Vac, 400-Hz, three-phase power system.

**MU-716(V)/U.** An expansion unit with a disk drive assembly and a 120- or 280-Vac, 50-/60-Hz, three- phase power system.

## Program Review

**Background.** In 1974, Computing Devices International (at the time known as Control Data Corp) introduced the UYH-3(V) for shipboard and ground-based applications. The system was based, in part, on the Computing Devices MU-609/T disk unit which it had produced for the US Air Force.

Since the mid-1970s, the UYH-3(V) has been deployed primarily among US Navy surface combatants. The US Navy has since developed a new standard disk drive that

replaces the UYH-2, UYH-3 and UYH-7. The new unit is the UYH-16 Mass Memory Storage Device (MMSD) developed by the team of Computing Devices international and Paramax Defense Systems. The MMSD was scheduled to replace the UYH-3(V) beginning over the FY93-FY95 time frame; however, the time needed to produce and field the newer storage device in sufficient numbers will maintain demand for support services and limited additional procurement (as spares or replacements) of the UYH-3(V) through the mid-1990s.

## Funding

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Funding breakout not available.

## Recent Contracts

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No recent contract activity.

## Timetable

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1974	Introduced UYH-3(V) to military market
1988	Initiated plans to develop MMSD replacement for UYH-3(V)
1993	MMSD procurement initiated

## Worldwide Distribution

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The UYH-3(V) is used by the **US Navy** aboard a wide range of surface combatants.

## Forecast Rationale

The UYH-3 is likely to be completely phased out by the end of the decade as it is being replaced by the UYH-16. A few units may be produced as replacements until the switchover is complete. It is unlikely that the UYH-3 will find its way into the export market of lesser equipped

navies as the 20-year computer technology used in the UYH-3 is already obsolete with computers used by some Third World nations. For all practical purposes, the UYH-3 has served its need very well and now it is time to move forward.

## Ten-Year Outlook

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As production activity is limited to spares production and maintenance support, the Forecast chart is omitted. Barring an unlikely surge of production, this report will be dropped from future supplements.

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