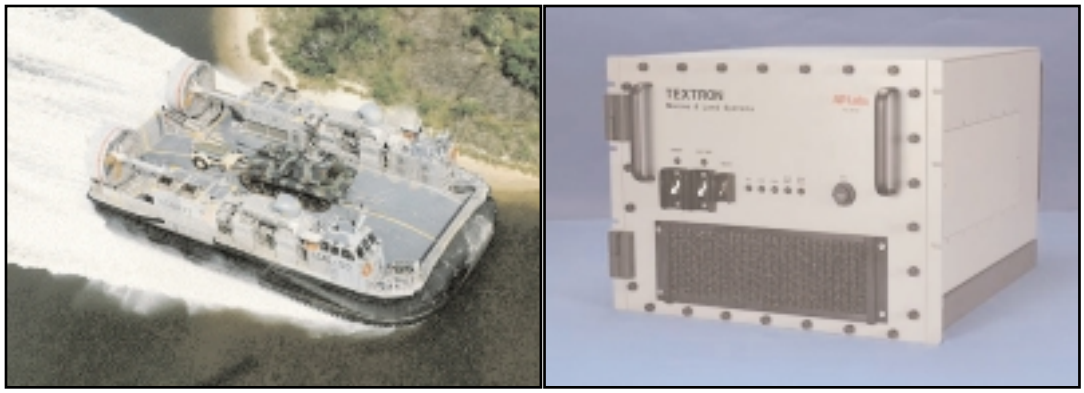
AP Labs

Rugged Enclosures
Integrated Systems
Manufacturing Services

Application Note

Rugged System For Engine Control

Maritime Control & Alarm Monitoring System utilizes AP Labs hardware, software, and systems integration capability



The AP Labs FS-8718 VME chassis is used to house the Control & Alarm Monitoring System (CAMS) for the US Navy LCAC (Landing Craft-Air Cushion). The CAMS is an all-COTS component dual redundant rugged subsystem of the on-craft control system.

This system features integrated AP Labs real-time software running under VxWorks on a Motorola MVME-2604 PowerPC Single Board Computer. Various COTS interfaces are supported with AP Labs device driver software.

In addition, the AP Labs Fault Isolation Library was integrated with board specific diagnostic routines to provide an automated self-test capability as well as off line diagnostics.

Testing of the CAMS also included Environmental Qualification Testing (EQT) software. This software runs automated software test to be utilized during environmental testing under simulated harsh conditions.

- *Utilizes the AP Labs Rugged FS-8718 rackmount VME Chassis to protect COTS components in a salt-spray environment*
- *AP Labs responsibilities include: rugged enclosure/rugged cabling, COTS VME products with device driver software, system integration & test, Acceptance Test development, Environmental Qualification Test*
- *Supports interfaces to 100 BaseT and FDDI networks*
- *Other interfaces supported:*
  - *RS485 Serial*
  - *RS422 Serial*
  - *Digital I/O*
  - *Digital to Analog*
  - *Analog to Digital*

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