

# Auto Storage and Retrieval System

next-generation storage and retrieval technology



General Dynamics Armament and Technical Products has developed the Automated Storage and Retrieval System, designed to handle a wide variety of navy-standard pallets and Joint Modular Intermodal Containers (JMICs).

Integrated with automated load identification, this system provides total asset visibility of all materiel within the hold. The ASRS is based on proven commercial technology and provides the benefit of increased throughput, fully selective offloading and workload reduction in a highly reliable, low-maintenance system.

The result of the development effort is a full scale demonstrator capable of handling 3,300-pound palletized and JMIC loads. The hardware was tested onboard the USNS Red Cloud in 2006 where it demonstrated compliance with all operating requirements. Following the demonstration, high wear items were subject to accelerated cycle testing in many cases equating to 25 years of service life. Future ASRS development will focus on testing the demonstrator at sea and expanding the system capacity to handle larger loads such as QUADCONS.

GDATP is currently under contract with the U.S. Navy for continuing research and development and has teamed with Siemens and General Dynamics NASSCO.

## Specifications

Throughput	Up to 268 pallets per hour (67 pallets/hour per load station)
Load availability	100% selective offload
Capacity	Up to 48x48 inch pallets and JMIC containers weighing up to 3,300 lbs. fully scalable
Inventory management	Automatic load identification (RFID) linkable to Shipboard Warehouse Management System
Workload	Significant workload reductions through complete automation of storage and retrieval operations
Redundancy	Fully redundant storage and retrieval machine operation, complete manual backup capability
Configurability	System can be reconfigured to interface with any container or hold configuration

## GENERAL DYNAMICS

Armament and Technical Products

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