

# UNDERWAY REPLENISHMENT

## Underway Replenishment Keeps Our Ships at Sea

Port Hueneme Division, Naval Surface Warfare Center (PHD NSWC) has provided Underway Replenishment (UNREP) engineering services to the Navy's surface fleet since 1963. UNREP is a combat system that enables aircraft carriers, surface combatants and amphibious ships to remain underway at sea indefinitely in support of our national interests.

UNREP systems are installed in every surface ship in the Navy. UNREP involves the transfer of all consumables from supply ships to the customer ships while both are underway. Items such as fuel, food, ammunition, repair or replacement parts, and personnel are routinely transferred at sea. PHD NSWC's responsibility is to ensure the Navy's UNREP system works when needed and performs as planned anywhere, anytime.

## Navy's Only Underway Replenishment Test Site

PHD NSWC is the only fully equipped and operational UNREP test site. This test site contains modern constant tensioned fueling and cargo systems with Navy standard equipment that represents the latest configurations for both the delivery and receiving parts of the system.

The test site has many uses:

- As a test site, it is used to fully test new systems, equipment, and configurations. Any new UNREP development can be thoroughly tested under the controlled conditions, safely, and economically through use of this dedicated land-based facility.
- As a demonstration site, it is used to demonstrate UNREP procedures, systems, equipment, and new developments to sponsors, fleet representatives, VIPs, foreign military representatives, and public and private tour groups.
- As a fleet technical assistance site, it is used to simulate or duplicate UNREP problems reported by the fleet and to develop special operational or repair procedures.
- As an overhaul site, it is used to recapitalize UNREP system machinery from decommissioned ship assets, overhaul and test items turned in by the fleet and return them in operational condition.
- The test site can be used to provide UNREP familiarization to Navy, Coast Guard, and civilian crews. Because the Navy standard equipment installed at the test site represents the latest design and highest population of UNREP equipment in the fleet, the training provided in equipment operation and maintenance, as well as system operation, can be tailored to ship specific training when the test site is available.

## New Underway Replenishment Technology

Our UNREP experts continue to be busy as the fleet's full service UNREP agent, maintaining crucial capabilities that permit our Navy to remain at sea for as long as necessary.

At the same time, the UNREP division has developed a new replenishment at sea system referred to as Heavy UNREP. Heavy UNREP system will reduce the current Carrier UNREP time by 50 percent while increasing load capacity to 12,000 pounds and allowing transfer in higher sea states.

The Heavy UNREP machinery design philosophy will introduce state of the art technology by utilizing high horsepower variable frequency drives. This design philosophy will be leveraged for a replacement UNREP system for future UNREP ships.

For more information contact:

Robert Hilger  
(805) 228-7994

[robert.hilger@navy.mil](mailto:robert.hilger@navy.mil)

or

[Unrep\\_dept@navy.mil](mailto:Unrep_dept@navy.mil)