

Littoral Combat & Power Projection

American national strategy relies on the US Navy and the Marine Corps to provide forward presence ready to project power across the beach. Such expeditionary operations require the full spectrum of combat capability and the flexibility of efficient logistics support. The Littoral Combat and Power Projection Future Naval Capability (FNC) enhances both. This FNC will give theater commanders a combined arms expeditionary ground force that can be tailored for the mission and work with any other US or Allied service to carry out the orders of the National Command Authority.

Littoral Combat

The Expeditionary Warfare core investment strategy will optimize the Navy-Marine Corps Team's unique ability to meet the challenge of the full spectrum of operations and conflict. This portion of the FNC was established in the summer of 2001; its IPT is currently developing an appropriate program.

Expeditionary Logistics.

Today, Naval forces are more than ever the nation's first response to a crisis. Logistics enables Naval forces to deploy forward, remain on station for as long as required, and project power. A sea base that can support an expeditionary force is an extension of American sovereignty and a guarantor of national independence of action.

Why is this Future Naval Capability important? Expeditionary logistics is the effective and efficient movement of equipment, supplies, and personnel between sea based platforms and operating areas. Effective movement requires an adequate distribution and lift capability. Efficient movement requires proper coordination of all resources through information management. We seek the ability to do this from the sea

base, without the necessity of building up large logistical establishments ashore. The Expeditionary Logistics portion of the Littoral Combat and Power Projection FNC addresses critical logistical capability gaps for Naval forces engaged in expeditionary

operations. It seeks to improve distribution operations in conditions up to sea state 5, enable faster and more efficient handling of materials, lift heavier loads than are currently allowed by both doctrine and equipment, and provide better tactical information exchange.

What's our investment strategy? The investment strategy for the Littoral Combat portion of this FNC is under development. It will focus on identifying and filling capability

gaps, just as the Expeditionary Logistics strategy does. Two Expeditionary Logistics enabling capabilities will get us where we want to be:

- **First Priority.** We need the ability to deploy from and reconstitute to the sea base, and to supply or resupply both the sea base and maneuver units—delivery is our first priority.
- **Second Priority.** We need to provide tactical and logistical command and control within a common C4ISR (command control, communications, computers, intelligence, surveillance and reconnaissance) architecture shared with maneuver forces—logistics C2 is our second priority.

First Priority: Distribution.

Today's capabilities have not been substantially upgraded since the Korean War. At-sea operations cease in conditions above sea state 3, even though we can expect to encounter those seas most of the time in many areas of operation. Current technology limits loads that can be handled at sea between ships to levels that are unacceptable, and limits the handling of material aboard ship to manpower intensive



working parties.

In FY 2002: High-speed vessel experimentation.

From FY 2002 through FY 2005: Increases in both the weight capacity and precision of underway replenishment.

From FY 2002 through FY 2005: Strike-up/Strike-down capabilities to improve handling, stowage, and break-out of increased materiel loads.

From FY 2002 through FY 2007: Skin-to-skin connected replenishment to handle 53,000 pound ISO containers and to add flexibility to the replenishment problem, thereby decreasing underway replenishment time.

From FY 2005 through 2007: Sea-base-to-shore surface craft to reduce resupply times for forces ashore.

From FY 2006 through 2007: High-speed sealift work emerging requirements from FY 2002 experimentation.

Transition Opportunities: The primary distribution transition opportunities are in direct support of the Maritime Prepositioned Force Ship of the Future (MPF(F)). However, many technologies are also relevant to platforms such as DD 21, CVNX, T-AKE, and others.

“The 21st century has been accurately characterized as the “Expeditionary Age” and each of the services now strive to enhance their respective abilities to conduct expeditionary operations.... The Navy is implementing wide-ranging changes to optimize operations in the littorals. And the Marine Corps, despite its long-standing commitment to an expeditionary culture, continues to pursue enhancement of its trademark expeditionary capabilities.”

—General James L. Jones, Commandant of the Marine Corps



Second Priority Logistics C2.

A common C4ISR architecture for both tactical and logistical needs should maintain situational awareness of forces ashore, afloat, and aloft. It must support integral feedback decision support systems, and tie together all expeditionary activities.

From FY 2002 through FY 2004: MAGTF/NCF tactical logistics command and control, including sensor array architectures for battlefield situational awareness and decision support modules.

From FY 2002 through FY 2005: Modeling and simulation technology development to support logistics training, logistics wargaming, and logistics C2.

From FY 2005 through FY 2007: Integrated Naval logistics C2 for the Joint Task Force, the Amphibious Task Force, and the Marine Air-Ground Task Force.

Transition Opportunities: Ground logistics technologies as well as some modeling and simulation technologies will transition as modules into funded legacy systems like C2PC, UOC, and the emerging GCSS-MC. Naval logistics C2 systems will begin transition in FY 05 pending development of doctrine and supporting transition strategies from OPNAV.

What's some of the sustaining discovery and invention science and technology areas?

- **Mathematical modeling** will be crucial to logistics wargame simulation performance.
- **Ship structures** and *hydrodynamics* support surface distribution efforts.
- **Information technology** and operations yield improved command and control technology.
- **Motion and load control** studies are critical to higher sea state operations.

