

Experimentation

Background

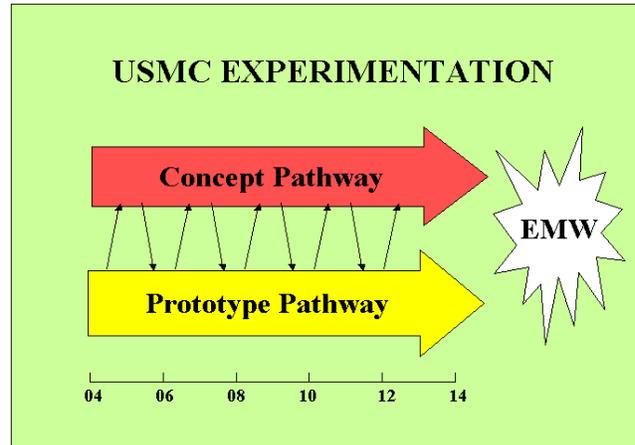
Experimentation efforts are guided by inputs from Defense Planning guidance, CMC Vision, Advocates, Marine Corps Combat Development Command (MCCDC), Office of Naval Research and a variety of other sources. Lab experimentation is conducted to meet Service Title X responsibilities and to provide Marine Corps contributions to Joint Concept Development and Experimentation (JCDE). Service experimentation conducted by the Lab is designed to improve current and future naval expeditionary warfare capabilities by:

- Conducting concept-based experimentation to develop and evaluate tactics, techniques, and procedures and technologies
- Supporting Marine Corps Advocates, MCCDC, Training and Education Command, and Systems Command to meet service-specific requirements
- Supporting Joint experimentation through MCCDC's Joint Operations Center, the Marine Corps' lead for U.S. Joint Forces Command's Joint Concept Development and Experimentation program (JCDE)
- Forwarding results of experimentation to MCCDC's Expeditionary Force Development Systems (EFDS) with recommendations for action

A Two-Path Approach

The Marine Corps focuses on developing two products as the result of a two-path strategy on which we base our approach to innovation and experimentation. One product of experimentation consists of actionable recommendations that result from the testing

of new concepts and capabilities that focus on the mid- and far-term. These products are generated on the concept pathway. Another product consists of the prototypes that evolve from concept experimentation. These prototypes improve near/mid-term warfighting capabilities and are generated along the prototype pathway.



The two-pathway approach drives us to conduct experimentation that covers the entire spectrum of capability development. At the same time, we ensure that the two pathways are integrated and compliment each other to develop the capabilities required for the Marine Corps of the future as delineated in the EMW Capability List (ECL).

Sea Viking

Marine Corps Strategy 21 is the vision of future Marine forces with enhanced expeditionary power projection capabilities. The capstone concept, *Expeditionary Maneuver Warfare (EMW)*, focuses our warfighting concepts toward realizing this vision. Sea Viking is a Commandant of the Marine Corps directed experimentation and concept development campaign that assesses Marine Corps/Naval capabilities in a Joint context. It is an iterative campaign of concept development, experimentation, and

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assessment designed to develop capabilities for the future. The main effort is to develop and assess the composition and employment of the future seabased MEB and ESG (ESF) capability sets.

Sea Viking Dual Pathways. Initially, the Sea Viking campaign was developed primarily as a prototype development campaign conducted by the Lab. In May 2003 the Commandant of the Marine Corps expanded the scope of Sea Viking necessitating the addition of a conceptual development pathway within the Sea Viking Campaign as follows:

CMC Sea Viking Guidance

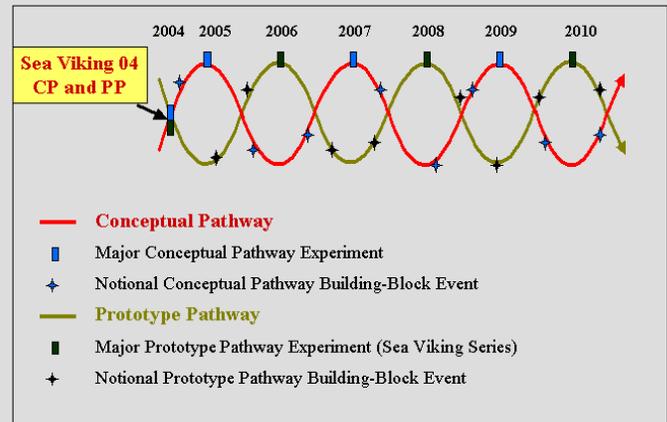
- Assess the future seabased MEB in a Joint Forcible Entry context
- Assess future MEB capability sets
- Assess seabased command relationships & interfaces across all warfighting functions

The Joint Concept Development and Experimentation Operations Center (JOC) at the Expeditionary Force Development Center (EFDC) joined the planning and took the lead for the concept development aspects of the experiment establishing the Sea Viking Concept Development (CD) pathway with support from elements of the Lab. The Lab maintains the lead for the prototype aspects of the experiment developing the Sea Viking Prototype Pathway (PP).

Using the dual pathway approach, the Marine Corps will continue the Sea Viking Campaign and plan, design, and conduct the phases along the two pathways. The initial phases along both pathways culminate in the fall of 2004. Following 2004, Sea Viking will be conducted annually, alternating between the two pathways with the conceptual pathway events culminating during the odd years and prototype pathway events during the even

years. Phases will alternate between pathways to maximize resource utilization and be complimentary from a capability development standpoint. This approach provides the opportunity to build on the previous years' findings as we develop the capabilities required to support EMW.

Sea Viking Battle Rhythm



Sea Viking Conceptual Pathway (CP) SV 04 Experimentation. With the expansion of the Sea Viking Campaign, the conceptual pathway experimentation in 2004 will develop concepts of operations that examine command relations, seabased organizations and advanced “capability sets” that will be assessed in modeling and simulation command post exercises. Principal participants include II Marine Expeditionary Force, the U.S. Second Fleet and Joint Forces Command. The experiment will seek to develop future MEB Forcible Entry CONOPS. Specifically the experiment will address future MEB capability sets, organizations, and equipment; Seabased C2 to codify Naval/Joint command relationships, architectures, and interfaces; and examine the ability of a future MEB to provide a Standing JTF Forcible Entry capability. Products of SV 04 (CP) experimentation will guide

continued Sea Viking experimentation leading to refined capability sets and DOTMLPF recommendations for the future MEB T/O and T/E.



Sea Viking Prototype Pathway SV 04 Experimentation. The Sea Viking 04 (PP) experiment was initially designed to occur on the West Coast and designed to assess surrogate and prototype equipment, and develop tactics, techniques and procedures to support 2015 Marine Expeditionary Brigade required capabilities. Objectives, preliminary events and Marine Corps-specific resource requirements were identified and agreed upon. Late in 2003, I MEF, a principle participant was assigned the mission of returning to Iraq as part of Operation Iraqi Freedom 2 (OIF 2). The scope of I MEF's deployment precluded West Coast experimentation in 2004. However, the Lab's development of experimental technologies that enable today's commander to develop future operating concepts led to an intersection of current requirements and future capabilities. As a result, the AWE will now occur in Iraq with deployed forces.

The focus of SV 04 (PP) did not change. It remains tactical-level "on the move/over the horizon" (OTM/OTH) communications with the embedded position location information (PLI) required to build a common tactical

picture. The Lab's experimental Expeditionary Tactical Communications System (ETCS) will provide the technical backbone of this system. I MEF requested ETCS to augment legacy systems in Iraq.

Sea Viking Prototype Pathway SV 06 Experimentation. The next phase of Sea Viking (PP) is Sea Viking 06. The purpose of this phase will be to identify and assess selected capabilities required by a forward deployed, seabased MAGTF in order to conduct immediate Joint Forcible Entry Operations (JFEO). Focus areas will be:

- Battalion(-) vertical assault in concert with distributed operations
- STOM TTP and Tech Development
 - C2
 - ISR
 - Maneuver
 - Fires
 - Logistics

Distributed Operations Experimentation Also included in the Sea Viking 06 (PP) campaign is the effort to support the development of distributed operations, a new additive capability to a deployed ESG. The capability will provide an improved capacity to gather persistent and actionable intelligence, and conduct battlespace shaping and precision targeting missions. The Lab is developing an experimentation plan to examine selected equipment, TTPs, and POIs required to conduct distributed operations.