

**STATEMENT OF
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MARINE CORPS COMBAT DEVELOPMENT
UNITED STATES MARINE CORPS
BEFORE THE
SENATE ARMED SERVICES COMMITTEE
SEAPOWER SUBCOMMITTEE
ON 3 MARCH 1999
CONCERNING
21ST CENTURY SEAPOWER**

Mr. Chairman, distinguished members of the subcommittee, thank you for this opportunity to discuss the implications of 21st Century threats upon our vision for the future of seapower. I'll begin with a historical perspective and an overview of the Marine Corps' vision for future warfighting. I'll then provide a detailed analysis of three key areas of concern – asymmetric threats, regional powers, and a potential peer competitor. I will then assess our anticipated future capabilities in light of those concerns.

As a geographically isolated maritime nation our security and prosperity, in fact our very identity, has been tied to the sea. We have relied upon seapower to sustain our economy, expand our influence, defend our interests, protect our citizens abroad, and provide relief to beleaguered nations across the globe. In short, seapower is the lifeblood of our national security strategy. It is still relevant today – and will remain so in the future – because no other capability provides our nation with the means to impose and maintain a scaleable presence and rapid access into virtually any potential crisis area around the globe.

The Marine Corps' role in the nation's seapower equation is a long and enduring one, shaped through our expeditionary ethos and inherent naval character. The Marine Corps is not a Cold War oriented force, nor has it ever been. We are a capabilities-based organization with a proven track record for innovation. Whether pioneering close air support techniques in the 1920s, developing amphibious doctrine in the 1930s, or building Fleet Antiterrorism Security Teams and the Chemical/Biological Incident Response Force of today, this tradition of innovation underlies the Marine Corps ability to remain “most ready when the nation is least ready.”

Clearly, we're not clairvoyant about the future of crisis

and conflict. We have, however, carefully investigated trends to identify possible alternative futures and potential turning points along the way. This approach will enable us to build a flexible, all purpose force that will be relevant in each.

One sure thing as we look ahead is that the role of forward-deployed Naval forces will expand. Such forces will become even more critical as future crises become more frequent, complex, and difficult to resolve. In August 1997 as a supplement to his original Commandant's Planning Guidance, General Krulak stated:

“Factors such as shifting economic centers, increasing urbanization, resource shortages, environmental disasters, and cultural strife, when combined with a rapid infusion of accessible high-technology weapons and information systems, will change the way our nation projects military power – and the way our adversaries counter us... They will attack us asymmetrically, pitting their strengths against our weakness, whether that lies in the military, political, or domestic realm.”

The Marine Corps is and always has been an expeditionary force. And the 21st century promises to be an expeditionary age – an age that will be punctuated by frequent crises which demand immediate response. From Iraq to Kosovo, Eritrea to Indonesia, the challenge of planning, deploying, and executing multiple contingencies will continue to be central to America's military posture

The 21st Century promises us worldwide connectivity and instant awareness, as well as new multi-dimensional challenges and transnational, even global threats. The Marine Corps assesses the future environment by periodically publishing the Marine Corps Mid-range Threat Estimate. Published at the unclassified level, the document describes trends which shape the nature of combat, the anticipated methods of combat potential adversaries may adopt, the technologies that may be applied against Marine forces, and the likelihood of conflict in, among,

and within sovereign states, world-wide. Given this future environment, Marine Air-Ground Task Forces must remain capable of responding to both traditional and asymmetrical threats, across the full spectrum of operations from humanitarian assistance to major theater war.

Having determined a “reasonable-man’s” view of the future environment, the next step is to pursue capabilities that will give us the means to operate effectively within it. We don’t do so arbitrarily, but through a carefully conceived mechanism we call the Concept-Based Requirements Process, which is part of our overall Combat Development System. Through this process, we analyze the anticipated future environment, identify potential challenges, and then determine the warfighting requirements needed to effectively address those challenges.

Our Operational Concepts stand at the core of the process. These are formal documents that articulate our vision for future warfighting. They look forward in time – beyond the concerns of today’s programming and budgeting – and provide the spark that initiates a focused process of proposal, debate and experimentation. We use this participatory dialogue as the means to shape the initial concepts, ultimately molding them into requirements that will provide the warfighting solutions needed. In the past two years, we have fostered, developed and published thirteen operational concepts for future warfighting.

Our capstone concept, *Operational Maneuver from the Sea (OMFTS)*, was approved by General Krulak in January 1996. *OMFTS* envisions a future environment characterized by, “crisis in the littorals,” and describes a new form of littoral power projection in which Marines will apply the tenets of maneuver warfare within the context of amphibious operations. In *OMFTS*, we will focus on an operational objective, using the sea as maneuver space to generate overwhelming tempo and momentum against potential adversaries. *OMFTS* offers us the promise of extraordinary leaps in operational flexibility through significantly enhanced capabilities for seabased logistics, fires and command and control.

Since the publication of *OMFTS* in 1996 a number of supporting concepts have followed. Each aimed at expanding the foundations laid by *OMFTS*. Most significant among this “family of concepts” are, first, “*Ship to Objective Maneuver (STOM)*,” which expounds upon the tactical implementation of *OMFTS* and the movement of forces from the sea base to the objectives ashore. Second, “*Sustained Operations Ashore*,” outlines the inherent flexibilities of the MAGTF to serve as a seabased operational maneuver element in support of a Joint Task Force. Third, “*Beyond C2: A Concept for Comprehensive Command and Coordination of the MAGTF*,” will enable future commanders to effectively focus all available resources to complete the mission at hand. And fourth, “*Maritime Prepositioning Force 2010 and Beyond*,” acknowledges the continued need for a Marine Corps prepositioned presence at sea that is also able to support the advanced logistics requirements of *OMFTS*.

In essence, each of these concepts provides potential solutions for individual pieces of the *OMFTS* puzzle. We will use them extensively to help us prepare for the significant threats we could potentially face in the future.

Threats to Naval Forces

The military threats to 21st Century Marine and Navy forces are as wide and varied as the entities they represent. In 1997 the Office of Naval Intelligence and Marine Corps Intelligence Activity published “*Challenges to Naval Expeditionary Warfare*.” In that publication they identified many of the weapons systems the Navy and Marine Corps “will have to face when U.S. Naval forces are called upon to respond to crises and threats against U.S. citizens or interests around the world.”

Across the spectrum of operations from peacekeeping to larger scale power projection, Naval Expeditionary Forces will face challenges ranging from the environment to man-made, and from benign to hostile. The rugged terrain, varied and unpredictable climate, and limited

physical infrastructure of the littoral environment requires a modern, self-sustaining force. Increased surveillance capabilities cue aggressors to the presence of our forces and an aggressive world arms market delivers sophisticated offensive and defensive technologies to those who desire the best and most effective weapon systems. Only by increasing our ability to respond rapidly, with a credible force, will Naval Expeditionary Forces positively influence events beyond the traditional beachheads of today.

Of ever increasing concern is the “asymmetrical” threat. The asymmetrical threat has been defined as the potential use of unconventional, unexpected, innovative, or disproportionate means to attack an adversary (Defense Intelligence Reference Document MCI A-1586-013-98 of July 1998 titled “*Asymmetric Warfare: Future War in the Littorals,*”). In a background publication from the Defense Intelligence Agency for the Quadrennial Defense Review, asymmetric warfare was described as “attacking a stronger foe’s weaknesses with unexpected or innovative means while avoiding his strengths.” While asymmetric warfare is not new or a definite type of warfare, campaigns emphasizing asymmetric strategies and operations do comprise a distinct form of war. We can expect the enemy to avoid direct engagements and attack in ways we may not even know of today. Similarly, we may be able to negate an opponent’s asymmetrical advantage by our own set of actions from which he is not prepared to defend.

Specific maritime, maneuver, and air dominance challenges to future Naval Expeditionary Forces will include mines, submarines, anti-ship cruise missiles, theater ballistic missiles, conventional armored forces, surface-to-air missiles, air defense systems, aircraft (stealth and conventional), and the proliferation of weapons of mass destruction.

Over 150 types of naval mines are in the inventory of over 50 countries around the globe. Old-fashioned moored contact mines were used as recently as the Desert Storm War of 1991 and

are easily manufactured by lesser-developed nations. Mines that rest on the bottom and explode by sensing sounds or magnetic fields are the most difficult to detect and counter. Propelled rising mines, like China's EM52 that lurk near the bottom and detach and rise vertically represent one of today's most serious mine threats. By 2016 a new generation of more capable and sophisticated propelled warhead mines will mature and spread throughout the world. There will be more mines designed specifically for very shallow water and the surf zone, which will directly challenge amphibious operations.

Over 60 countries have inventories with more than 60 types of torpedoes. Whether launched from expanding fleets of modern diesel submarines or from other platforms, these weapons pose a real danger to Naval forces and to combat support vessels. Modern torpedoes range from straight running to sophisticated acoustic and wake homing models designed to ignore acoustic interference and evasive ship maneuvers. International competition in the expanding global torpedo market is expected to result in a wide proliferation of high quality, antiship torpedoes.

Over 75 countries possess more than 90 different types of antiship cruise missiles. Competition for sales is intense, and, since cruise missiles are not considered strategic weapons, limits on technology transfer levels are virtually nonexistent. Future missiles will include longer ranges, greater speed, stealthy designs, advanced seekers and onboard digital computers.

Theater ballistic missiles (TBM) will continue to be a growing threat for the US military. The number of countries that possess TBMs has almost doubled in the past 20 years, and the projection is that some 40 to 50 countries will deploy at least one type of TBM by 2016.

In the area of conventional armored forces, opposing forces may possess weapons that match or exceed ours in terms of range, accuracy, and lethality. Our forces will continue to operate in expeditionary environments characterized by difficult ground maneuver conditions,

inadequate port facilities to sustain extensive expeditionary operations, decaying road networks, and limited fuel supplies.

Surface-to-air missiles are evolving in terms of the portion of the radio frequency spectrum used and the varying modes in which they operate. Systems now being prepared for sale on the international market will use non-traditional portions of the spectrum and will transition from passive / semi-active guided to autonomous homing.

These new integrated air defense systems will generate little smoke and attain hypersonic speeds, making them hard to see and outmaneuver. Increased computerization and automation will reduce system reaction times, manpower and training requirements, and vulnerability to countermeasures.

The increased proliferation of multirole aircraft will continue. These aircraft will have low radar signatures, complicating warning and targeting. Stealth technology will become an inevitable part of these weapons systems as well.

The proliferation of weapons of mass destruction makes their use more likely than ever before. Unrestricted and asymmetrical warfare means just that. Many non-state actors who possess these weapons can be expected to use them, if they believe doing so will advance their interests.

Naval Forces as the Force of Choice

The end of the cold war has initiated an era in which potential adversaries have become more numerous. Populations are expanding into the littoral areas of the world. They are taking advantage of a new world order to interact with each other, particularly in the conduct of trade. It is in the littorals that the manifestation of asymmetrical capabilities will appear among numerous

adversaries that range from organized national military forces to paramilitary forces, armed political factions, street gangs, and individual terrorists.

International law recognizes the legitimate presence of naval forces in littoral areas. This affords naval expeditionary forces unique flexibility in the pursuit of national interests. Naval expeditionary forces can remain on station in the littoral as a watchful presence in the pursuit of peaceful resolution of conflict, and can be used in the event of a failure of those initiatives. Additionally, the limited application of naval expeditionary power can also serve to reinvigorate efforts toward peaceful conclusion.

Assessment

For over 200 years Naval forces have been the expeditionary force of choice for our nation, even more significantly so within the last half century. Whenever the National Command Authorities needed a versatile, sustainable, and credible force for immediate employment, the Navy/Marine Corps team has answered the call. In the past 50 years Naval Expeditionary forces have responded to over 250 crises worldwide. The purpose of our family of operational concepts - with *OMFTS* at the core - is to ensure that the Marine Corps of the 21st century is even better able to respond to challenges than was the Marine Corps of the 20th.

While it is relatively simple to proffer concepts for how the Marine Corps is preparing to fight in the future, it is another thing altogether to describe HOW we intend to do this. Several recent studies, first from the Defense Science Board and, second, the Naval Studies Board have acknowledged this fact. Both studies were unanimous in their support for the *OMFTS* concept and the need to develop the means to make it happen. Both studies recommended several key *OMFTS* enablers.

The first of these is to develop the capability of Sea-based Operations and Logistics Areas where strategic sealift delivers people and equipment for onward movement to tactical

areas ashore. Not necessarily descriptive of a particular ship or platform, Sea-based Operation and Logistics Areas could be a combination of navy at-sea platforms, to include amphibious assault ships, prepositioned ships, various auxiliary ships, and third country air or sea ports. Rather than delivering all things ashore and forming the traditional “Iron Mountain” of supplies, logistics operations will deliver tailored support from the sea base to the highly mobile combat forces ashore.

In concert with the sea-based operations and logistics areas, we will need to develop heavy lift, high speed, sea-ferrying craft capable of rapidly transporting equipment and personnel ashore. These Fast Shuttle Sea Lift craft will allow us to rapidly project a viable combat force ashore and sustain that force for an indefinite period.

The third key enabler to OMFTS will be the development of MPF-Future. Building on the strengths of the current MPF concept, MPF-Future will give a joint warfighting commander the ability to deploy combat-ready Marines into a theater of operations with minimum host-nation support facilities. The MPF then becomes an integral part of the sea-based logistics area from which follow-on logistics support will be staged for throughput to operational areas ashore.

Three Block War

But war will not be the only “challenge in the littorals,” that OMFTS will enable us to meet. This concept will provide us with the means to respond appropriately across the spectrum of operations. In fact, General Krulak’s vision for this complex environment has formed the basis for what we now refer to as the “Three-Block War” scenario. Again, to quote from his 1997 supplement to the Commandant’s Planning Guidance:

“In the next century, we will have Marines conducting humanitarian operations, peacekeeping, and high-intensity combat all in the same day and in the same operating area. This mission depth will require Marines to work side by side with

other government and non-government agencies... The Corp's future operating environment will require our forward deployed seabased forces to quickly and efficiently integrate the intelligence, operations and support assets of the entire spectrum of national power. This spectrum includes military, academic, industry, government, and non-government agencies and assets... We must weave these diverse capabilities...into a coherent campaign plan."

Implementing OMFTS

Our response to this diverse environment is rooted firmly in OMFTS, and our transition to full OMFTS capability will occur through a process of guided evolutionary change. In this fashion we will enhance our current ability to provide the Nation with the core competencies that define the Marine Corps: expeditionary readiness, combined arms operations, expeditionary operations, sea-based operations, forcible entry from the sea, and reserve integration. Though the change will be gradual, you will see a steady growth in capability, achieved in a fiscally responsible manner, with results that will ultimately represent a dramatic increase in the Nation's capacity to rapidly project power throughout the world's littoral regions.

OMFTS provides the common focus for the Marine Corps Combat Development System as we shape capabilities for relevance in the chaotic littoral environment of the future. Recently, a working group consisting of Marine Corps and Navy Officers met at Quantico for five months to examine in detail the challenges and opportunities represented by OMFTS. In January, this group presented their findings to the Commandant of the Marine Corps in a report that provides the framework for the OMFTS-capable force of the 21st Century.

We are already following through on the efforts of this OMFTS Working Group with two new initiatives underway at Quantico. First, our Concepts Division is spearheading an effort to develop a detailed Concept of Operations consisting of tactics, techniques, and procedures

specific to OMFTS. This body of “emerging doctrine” will provide a baseline for modeling, simulation, and experimentation of OMFTS themes, ultimately leading to a solid doctrinal foundation for the entire family of operational concepts.

The second initiative is that of the Force Structure Planning Group. This group of senior officers was recently formed to identify the near-term organizational and personnel changes necessary to initiate the transition to a fully OMFTS-capable force.

Timeline

Today’s Marine Corps has a limited capacity to conduct OMFTS operations. But the major equipment end items we will need to make OMFTS a reality are within our grasp. The most important of these items are known as the “OMFTS Triad:” the MV-22 tilt rotor aircraft, the Advanced Assault Amphibious Vehicle (AAAV), and the Landing Craft Air Cushioned (LCAC) Service Life Extension Program (SLEP).

Beginning in the year 2001, upon delivery of the 12th airframe, the Marine Corps will stand up its first Fleet Readiness Squadron of MV-22 Ospreys: VMMT-204. The first deployment of the Osprey with an East Coast unit is scheduled for FY03. The first deployment with a West Coast unit is FY06.

Scheduled for the year 2006, the first of the AAAVs will be assigned to operational units. AAAVs will ultimately replace the older AAVs in each of the three Marine Expeditionary Forces, as well as in our maritime prepositioned equipment sets.

The third leg of the triad is that which currently exists, the LCAC. Currently nearing the end of its initial service life expectancy, the SLEP program will keep these critical vehicles in the inventory while adding capabilities which will be critical to the rapid movement of supplies and vehicles in OMFTS operations.

Beyond the OMFTS triad we look forward to the Joint Strike Fighter (JSF) which will further enhance the versatility and lethality of future MAGTFs. And the continued development of the Navy's Land Attack Destroyer, the LPD 17, and the next generation of Maritime Prepositioning Ships are absolutely critical to success in future operations.

While we continue to pursue these high profile capabilities, we can not afford to ignore the more mundane but still critical issue of mine detection, avoidance, and clearance. The current emphasis on improving organic mine counter measures (MCM) is a real plus for the littoral warfare forces of choice; carrier battle groups (CVBG) and amphibious ready groups (ARG). The Navy and the Marine Corps must continue to pursue the capability to identify minefields, map their outlines, and either avoid, neutralize, or breach them to allow the introduction of surface landing forces. This capability must be landward as well as seaward, and include both deliberate and assault breaching capabilities.

Finally, we will continue to prudently invest in advanced C4I concepts, strategies and technologies. Access to a worldwide command information architecture will provide our forward deployed commanders with an instantaneous, location-independent means of command. It will also serve to empower them with the dynamic situational and cultural awareness needed to successfully advance our nation's interests.

Conclusion

For all our emerging capabilities, risk is still inherent in military operations. Looking out beyond 2010, to the time when we envision OMFTS as reality, potential threats will principally be of three types: asymmetrical threats, regional powers, and peer competitors. We refer to this as the potential "spectrum of conflict."

In each case the Marine Corps, using OMFTS, will be a formidable asset for the NCA and the warfighting commanders. There will be risks to seaborne forces, but these risks will be

relative, as OMFTS will help to balance them. The stationary force tied to a shore based logistics infrastructure of yesterday and today will be replaced by highly maneuverable forces operating from a relatively secure sea base. OMFTS will enable Marine Corps ground and aviation forces to maneuver freely on the sea and strike directly at critical centers of gravity deep inland.

As technology develops, weapons will become faster, more accurate, and more deadly. And the age-old race between weapons, counter measures, and counter-counter measures will continue at break-neck speed. It may be unrealistic to believe that we can achieve and maintain full weapons or technological “dominance” in our future environment, but clearly our nation must remain in the forefront. And the naval services must -- and will -- retain our unchallenged position as the nation’s premier expeditionary force in readiness. Seapower, applied in part through the tenets of the Navy Operational Concept and OMFTS, will ensure our nation remains able to respond in the face of future crises.

Overall the U.S. Military stands at a crossroads of opportunity. The Marine Corps, partnered with the Navy and through the continued support of this subcommittee, will be ready to meet all challenges, and to fight and win the battles of tomorrow – swiftly and decisively.

I thank you for the opportunity to present this testimony. I am now happy to answer your questions.