

**STATEMENT BY**

**LIEUTENANT GENERAL MARTIN R. STEELE**

**DEPUTY CHIEF OF STAFF FOR PLANS, POLICY, AND  
OPERATIONS**

**HEADQUARTERS, U.S. MARINE CORPS**

**BEFORE THE**

**SENATE COMMITTEE ON ARMED SERVICES**

**SUBCOMMITTEE ON SEAPOWER**

**ON**

**21 APRIL 1999**

**ON SHIP ACQUISITION PROGRAMS AND POLICIES**

Madame Chairman and distinguished members of the subcommittee, I am pleased to have this opportunity to discuss ship acquisition resources versus requirements and resource allocations to maintain Marine Corps amphibious ship force structure. Today, thanks to the support you have provided, your Marine Corps continues to maintain the high state of readiness necessary to effectively answer the Nation's call, remaining most ready when the Nation is least ready. Our 24<sup>th</sup> Marine Expeditionary Unit (Special Operations Capable) MEU(SOC) embarked aboard the USS NASSAU Amphibious Ready Group is participating in Operation Noble Anvil as its AV-8B Harrier aircraft fly combat missions over Kosovo. Additionally, the 24<sup>th</sup> MEU(SOC), serving as the strategic reserve for EUCOM, is prepared to participate not only in humanitarian assistance operations but also as the lead element of a ground combat combined arms force. The capability inherent in the afloat forces, to include our Maritime Prepositioning Forces, allows us the flexibility to have a 16,500 man armor/mechanized heavy force on the ground within ten days with adequate strategic airlift and port throughput. It is through your unflinching support that today's Marine Corps is a ready force, capable of simultaneous air and ground action, with unimpeded access to potential trouble spots around the world, the "force of choice" that the 82<sup>nd</sup> Congress prescribed it to be—in the past, now, and in the future. All of this would

not be possible without your devoted support and leadership—your Marines thank you.

With the decline in available overseas basing, power projection from the sea has become the reliable option of choice. This unique capability stems from the ability to initially command the seas. From their ships, Navy-Marine Expeditionary Forces are able to dominate a foe in the littoral battlespace using a variety of organic power projection means. Their control over sea and land areas can ultimately enable the introduction of follow-on joint forces. The Navy and Marine Corps are uniquely capable of accomplishing this vital mission.

Operating unfettered from their ships in international waters, Navy-Marine Expeditionary Forces can leverage diplomacy. If diplomacy resolves the crisis, Navy-Marine Expeditionary Forces can withdraw without having stepped ashore. If diplomacy fails, Navy-Marine Expeditionary Forces can transition from a peacetime forward presence to a host of deterrent actions. In time of crisis, they provide rapid and sustained response. They are either already on the scene, or first to arrive. When floods in Kenya left 200,000 civilians isolated in February 1998, Marines provided food distribution over a 30-day period. When Puerto Rico was devastated by Hurricane Georges in late September 1998, the Navy-Marine Corps team provided humanitarian assistance and disaster relief through most of October

operating from the USS BATAAN (LHD-5). When it becomes necessary to actively influence events ashore, Navy-Marine Expeditionary Forces can project military power tailored to the situation. Such was the case last year when 22<sup>nd</sup> Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)) and Amphibious Squadron 8 reinforced the U.S. Embassy in Albania with 55 Marines to evacuate Americans and stabilize the situation. Indeed, our Navy-Marine Expeditionary Forces' ability to rapidly and appropriately respond throughout the spectrum of conflict from peacetime operations to wartime situations is an essential element of our Nation's ability to promote peace, free enterprise, democracy, and actively shape regional security environments.

The 21<sup>st</sup> Century will place a higher premium on Navy-Marine Expeditionary Forces. They will remain an effective means with which we will protect America's vital interests across the globe. They also reflect America's will and ability to exert global leadership. During the course of my remarks, I will discuss the key concepts and issues that effect ship acquisition programs and policies that will enable the Corps to move into the next century. You have specifically asked for my insight into ship acquisition resources versus requirements and resource allocation to maintain Marine Corps amphibious force structure. Although we have agreed to accept risk in our fiscally constrained environment, and the monies currently allocated meet the need within those

constraints, the reality is that the environment of the 21<sup>st</sup> Century does not do away with the requirement—a requirement which is not being met by the current program.

## **THE ENVIRONMENT**

I believe it is important to spend a few minutes relating our vision of the environment for conflict in the 21st Century. Since the end of the Cold War and the bipolar world toward which our national security strategy had long been oriented, we have witnessed the beginning of a new era in world violence. Navy-Marine Expeditionary Forces responded to Saddam Hussein's refusal to comply with United Nations Resolutions through participation in Operation Desert Fox. The tragedies in Somalia, Rwanda, and the conflict in Liberia all signify the trend toward nations splintering along ethnic, religious, and tribal lines. The break-up of the former Soviet republics and Yugoslavia along with the current conditions in the Balkans have serious consequences. These trends suggest not just crises between nations and within nations, but also a greater degree of general instability--a time of asymmetry--a time of chaos. The security environment will also be characterized by dynamic political alliances and shifting economic influence. In the Pacific, stability and security challenges remain the concern of the day.

The world in which we live requires a strong Marine Corps now more than ever. Consider that during the Cold War Marines were called upon to protect our

Nation's interests on an average of once every 15 weeks. Since 1990, Marines have responded to events once every five weeks, a threefold increase in taskings. Many of these incidents have caused us to employ our forward-deployed Marine Expeditionary Units and Amphibious Ready Groups (ARGs) using "split" operations. Responding to multiple crises by elements of a tactical unit operating far apart has become a routine occurrence in almost every theater. Every Landing Force 6<sup>th</sup> Fleet Marine Expeditionary Unit/Mediterranean Amphibious Ready Group deployment since 1995 has had to split its capabilities as operational contingencies and the NATO Partnership for Peace exercise program compete for limited available assets. Consider a recent example involving our 22<sup>nd</sup> MEU(SOC). During their last deployment cycle, which covered the period from 1 July through 10 December 1998, this Marine Air Ground Task Force (MAGTF) was deployed away from the United States for 163 days of which 136 were spent in support of European Command mission requirements. During this operationally busy period, the 2,100 Marines of 22<sup>nd</sup> MEU(SOC) visited 15 countries, participated in nine NATO/bilateral training exercises, supported four operational contingencies, and conducted one emergency rescue at sea. Furthermore, 22<sup>nd</sup> MEU(SOC) spent approximately 82% of its deployment in a split-MEU configuration which made their mission even more challenging.

Our Commandant, General Krulak, has noted the threat of the early 21st Century will not be the son of Desert Storm, but rather the stepchild of Chechnya. We believe our opponents will not be doctrinaire or predictable. Instead, they will challenge us where we are least able to bring our strength to bear. As seen in the August 1998 bombings of our East African embassies, they will not limit their aggression to our uniformed military. Further compounding the difficulty of the challenge is the sensing that future adversaries are certain to attempt to disrupt activities in our homeland. Today we are witnessing only the tip of the iceberg. Combined with the proliferation of high-tech weapons of mass destruction--which further empower both third world nations and non-state entities--this complex, dynamic, and asymmetric conflict might well be as lethal as a clash between superpowers. One thing is certain, this 21st Century threat will be far more difficult to manage.

Much of this conflict and chaos in the 21st Century will originate where the world's oceans meet its landmasses, the littorals. By 2010, over seventy percent of the world's population will live in urban areas and most of these, within 300 miles of a coastline. An ever-increasing world population (5.8 billion today; 7.5 billion by 2015 and 8.5 billion by 2025) will feed the urbanization of the littorals and this mass of humanity is moving from rural areas to urban areas. Today forty-five

percent of the world's population lives in urban areas. By 2015, sixty-one percent of the world's population will be city dwellers.

This environment will potentially breed disease, vermin, malnutrition, and overcrowding. It will apply an increasing strain on a city's ability to provide health, sanitation, water, sewage, and other social services to its population. This environment will create competition for resources. Competition among ethnic and religious populations will make the urbanized littorals ripe for conflict in the 21st Century. The littoral regions of the world are chaotic today and will remain an area of challenges, tension, and conflict far into the future.

Further complicating the conflict in the future will be a blurring of the spectrum of conflict and war. Our Commandant refers to a tactical vision of war where we see our Marines engaged simultaneously in humanitarian operations, peace operations, and warfighting. These three activities will be conducted by the same Marines in proximity in time and space. The three-block war our Commandant refers to is the national security environment in which Marines currently prepare to operate.

This is the future environment we see. This complex, dynamic, and uncertain world will give rise to conflicts that blur current thinking about the spectrum of conflict and war. When U.S. interests are at stake, we will engage and employ our forces to maintain order. Once engaged we are unavoidably targets of

one side or another or perhaps both. These foes will choose to attack us in places, both at home and abroad, and in a manner that will make it difficult for us to bring our conventional military power to bear. If, as our current National Security Strategy indicates, managing this environment is important to the success of national policy, then we must place a premium on general purpose forces that complement our Nation's overall response options and are capable of rapidly responding to crises or potential crises anywhere in the world. In essence, Navy-Marine Expeditionary Forces are even more of a critical component in executing the National Military Strategy of the next century--given their ability to shape, respond to, and prepare for operations in this very chaotic environment.

### **THE MARINE CORPS IN THE 21ST CENTURY**

To be relevant in the 21<sup>st</sup> Century, military forces will have to be on the scene and multi-mission capable. *Forward ... From the Sea* and *Operational Maneuver From the Sea* (OMFTS) are hierarchical concepts which describe a Navy/Marine Corps team that is relevant and understands its role in the challenging years ahead. We are a team and, like all winning teams, are ready for all comers. We are also smart enough to know, however, that game day is too late to prepare a plan.

History is replete with anecdotes of nations unprepared for war in their age ... lacking vision (or the will to capitalize on that vision) ... and eventually

struggling to properly equip, train, and organize their military forces in the face of a hostile enemy. Foremost in the hasty and reactive preparations of these powers was acquiring new weapons technologies and shaping their doctrine and force structures to capitalize on the strengths of their warfighters and the new technologies with which they were equipped.

The Marine Corps places a premium on vision and forethought concerning warfare in the 21st Century. The force that recognizes the diverse and chaotic nature of tomorrow's battlefield; develops and embraces an operational concept that supports their national security strategy across the spectrum of conflict; and adequately tailors its doctrine, organization, training, equipment and supporting facilities to support that concept will be victorious. The force that does not may not be afforded the luxury of making these adjustments before they are forced to capitulate.

In short, if we are to remain a relevant warfighting asset to our Nation, it is incumbent upon us to regularly refine and develop our cornerstone concept, *Operational Maneuver From the Sea*, and adjust our capabilities accordingly. This is what our Combat Development System (CDS) and Concept Based Requirements Process is all about. Our Concepts Division at the Marine Corps Combat Development Command has published several OMFTS supporting concepts to "drive the CDS train." Our Doctrine Division reviews our standing doctrine

against the outcomes of our Warfighting Laboratory's experimentation program.

This transformation process is firmly in place and making Marines that are capable of meeting the chaotic challenges of the 21st Century battlefield. Of particular note is our revision of entry-level training, both recruit and initial combat skills training, along with our field leadership courses to ensure that our Marines are capable in prevailing in this new environment.

## **MARINE CORPS CONCEPTS**

The Marine Corps has developed comprehensive concepts to meet the challenges of conflict in the 21st Century. Our Commandant has maintained we should not approach a defense transformation with a mindset that we are in a strategic pause--a lull in great power competition, that we can take advantage of by resting. A strategic pause implies we need to just stop, catch our breath, cut our defense budget, plan for the future by making a straight-line projection from the past, and that the future national security challenges and wars will be much the same as we know them now. This is false hope and presents a poor sense of security in the future. Now is the time to prepare for future challenges.

As I have already indicated, Marines believe that the threats to national security will be far different in the 21st Century than they have been through our Cold War era. As the challenges are radically different, so must be the concepts to meet those challenges. Marines subscribe to the view that we now face what

Andrew S. Grove, former President and CEO of Intel Corporation, refers to as a strategic inflection point. In his words, a strategic inflection point is a time in the life of a business when its fundamentals are about to change. They are full-scale changes in the way business is conducted, so that simply adopting new technology or fighting the competition as one is used to may be insufficient. In the business of national security, Marines are convinced all of the signs point to just such an impending change. Accordingly, we are developing full-scale changes in our concepts for the employment of Marines that will meet national security threats of the 21st Century in a thoughtful way.

Concepts are the road map to the future and OMFTS is the “capstone” concept providing overall direction. It is built on the shared Navy/Marine Corps vision of future littoral warfare operations described in the white papers...*From the Sea and Forward... From the Sea*. Combined with *Ship-to-Objective Maneuver*, *Maritime Prepositioning Force 2010 and Beyond*, and *Beyond C2*, OMFTS is a clear statement of what the Marine Corps sees as the future battlefield and what capabilities naval forces will need to fight. The purpose of OMFTS and all of our warfighting concepts is “to begin the process of proposal, debate, and experimentation” that will lead to maritime operations that exploit enemy weaknesses and deal decisive blows from which the enemy cannot recover.

**Operational Maneuver From The Sea (OMFTS).** OMFTS is the Marine Corps capstone operational warfighting concept for the 21st Century. It is applicable across the range of military operations--from major theater wars (MTWs) to smaller scale contingencies.

OMFTS describes a new form of littoral power projection in which Marines will apply the tenets of maneuver warfare--at the operational level of war--in the context of naval operations. In OMFTS, naval forces focus on an operational objective using the sea as maneuver space to generate overwhelming tempo and momentum against critical enemy vulnerabilities.

OMFTS offers the promise of extraordinary leaps in operational flexibility by introducing the notion of enhanced capabilities for seabased logistics, fires, and command and control. Seabasing facilitates maneuver style operations by allowing commanders to land at times and places of their choosing, eliminating the requirement for an operational pause as the landing force builds combat power ashore, and by freeing the commander from the constraints of the traditional beachhead and its mountain of support and supply which accompany today's amphibious operations—tomorrow that support and supply will come from the relative safety of seabasing.

**Ship-to-Objective Maneuver (STOM).** STOM provides for the tactical implementation of OMFTS by describing the applications of the tenets of

maneuver warfare to amphibious operations at the tactical level of war. STOM builds upon many of the themes introduced in OMFTS: use of the sea as maneuver space, elimination of the requirement for a traditional beachhead, and seabasing. The principal gain accrued from not stopping at the beach is the ability to retain the initiative and surprise inherent in a forcible entry from the sea.

Departing from the traditional, linear form of amphibious operations practiced during most of this century, STOM envisions naval operations in which both surface and vertical lift combined arms teams commence their attacks from over the horizon, pass over the beach, and proceed directly to their assigned objectives. The concept calls for exploitation of navigation and situational awareness capabilities provided by new technologies to allow tactical commanders to command and control the maneuver of their units beginning at the moment they cross the line of departure at sea, instead of once they arrive at the beach. This aspect allows the commander to change littoral penetration points during the assault and use supporting arms to facilitate the attack.

Service and joint wargames have consistently validated the STOM concept, showing that tactical commanders who take advantage of the much greater maneuver space the sea provides can dictate operational tempo and attack enemy forces at times or from directions that put those forces at a significant disadvantage.

**Seabased Logistics.** This naval concept expands the scope of logistics support for operations ashore by exploiting existing and emerging technology and practices. Seabased logistics proposes four key changes to sustainment: elimination of the traditional force beachhead; reduction of logistics demand; implementation of in-stride sustainment; and transition to sustained operations ashore.

Seabased logistics will support a broad spectrum of operations from the sea and lead to new ways of executing missions. It will use selective offload to access essential items from the seabase and be able to resupply from commercial sources. The seabase will have an intermediate maintenance capability for protracted sustainment and reconstitution. Finally, seabased logistics envisions a system that is interoperable with all joint systems.

**Mobile Offshore Base (MOB).** Part of seabasing may include the MOB. The MOB is an industrial concept that provides the supporting infrastructure to sustain combat operations in areas lacking substantial basing structure or where access to U.S. forces is denied. As a seabased element, the MOB concept provides the capability of introducing a logistics system in a theater of operations. It would serve as a sea borne forward base/platform and provide the logistics architecture to receive, warehouse, assemble, reassemble, and distribute equipment/supplies to sea, air, and land forces. The MOB concept can be employed across the full

spectrum of combat and Military Operations Other Than War. Conceptually the MOB will operate in a threat environment, but not in a direct hot battlespace. The MOB would be under the protective umbrella of seabased, battle force combatants. Its ability to operate at far distant ranges from the battlespace provides a force protection advantage and is worthy of serious study.

**Maritime Prepositioning Force 2010 and Beyond.** The Maritime Prepositioning Force (MPF) concept was initiated in the early 1980s as a Department of Defense Strategic Mobility Enhancement program whose purpose is to provide warfighting CINCs deployment flexibility and increase the national capability to rapidly respond to crises with a credible force. MPF and amphibious operations are complementary. Amphibious shipping provides the indispensable, unique capability to effect a forcible entry. MPF can rapidly reinforce a forward-deployed MAGTF using the speed afforded by airlift while capitalizing on the economical sustainability of commercial sealift. This concept has proven to be an indispensable force deployment option in numerous operations across the operational spectrum. MPF will continue to be viable well into the future and to ensure MPF operates in consonance with OMFTS and STOM, we are developing an MPF concept that will revolutionize our method of operations. MPF 2010, or MPF Future, is the concept that describes how next generation MPFs will contribute to forward presence and power projection critical to supporting our

National Security Strategy and meeting emerging threats. It is best illustrated through its five pillars:

First, force closure: MPF Future will provide for the at sea arrival and assembly of the MAGTF, eliminating the requirement for access to secure ports and airfields. Marines will deploy via a combination of surface mobility means and strategic, theater, and tactical airlift-- including the MV-22--to meet MPF ships while they are underway and enroute to objective areas.

Second, amphibious task force (ATF) integration: Through ATF integration, MPF Future will participate in OMFTS by using selective offload capabilities to reinforce the assault echelon of an ATF from over-the-horizon. While future maritime prepositioning ships will not have a forcible entry capability, they will possess the versatility to reinforce the striking power of an ATF.

Next, indefinite sustainment: MPF Future will provide for indefinite sustainment by serving as a seabased conduit for logistics support. This support will flow from bases located in the U.S. or overseas, then onto Marine units conducting operations ashore or at sea. This might be accomplished as part of a larger seabased logistics effort that would include not only maritime prepositioning ships, but also aviation logistics support, ships, hospital ships, and offshore petroleum distribution systems.

Fourth, reconstitution and redeployment: Upon mission completion, MPF Future will conduct in-theater reconstitution and redeployment, without a requirement for extensive material maintenance or replenishment at a strategic sustainment base. This ability to rapidly reconstitute the MPF will allow for immediate employment in follow on missions.

Last, force protection: MPF Future provides for unparalleled force protection. Exploiting the sea as maneuver space, the dispersed, mobile MPF complicates the enemy's threats. A medium for the movement of the MPF, the sea also serves as a barrier to terrorists or special operations forces.

**The MAGTF in Sustained Operations Ashore.** The inherent flexibility of the MAGTF, merged with new technologies, will permit the future MAGTF to function as an operational maneuver element during sustained operations ashore. As an operational maneuver element, the MAGTF can be used to pave the way for decisive operations by other elements, as a decisive force to unhinge the enemy's operational center of gravity, or as an exploitation force to take advantage of opportunity on the battlefield. The role of the MAGTF in sustained operations ashore will be different in the 21<sup>st</sup> Century. The battlespace of the future will often be nonlinear and lack large, easily targeted enemy formations. Critical vulnerabilities will be difficult to discern and difficult to engage. Physical occupation of large terrain will be less important than focused attacks aimed at

reducing the enemy's ability and will to fight. The MAGTF will remain a general-purpose force, but one capable of executing a series of precise, combat actions. The inherent flexibility, versatility, and responsiveness of the MAGTF and its incorporation of emerging technologies will permit a continuing capability for the Marine Corps to operate alongside the U.S. Army when necessary in future sustained joint operations ashore.

**Advanced Expeditionary Fire Support.** This concept serves as the first step in the process of proposal, debate, and experimentation through which the Marine Corps will develop the future system to provide expeditionary fire support. Fire support requirements exist across the entire spectrum of conflict—from devastating, lethal fires in sustained operations ashore to tailored non-lethal fires in support of smaller scale contingencies. The advanced expeditionary fire support system will be flexible, robust, and capable of providing responsive, all-weather fire support around the clock in all types of military operations and in a wide range of tactical situations.

**Beyond C2.** *Beyond C2: A Concept for Comprehensive Command and Control of the MAGTF* is an operational concept that will integrate the entire spectrum of national power in support of our forward-deployed forces. Specifically, *Comprehensive Command and Control* will explore the coordination of the intellectual and material power of the military, business entities, academia,

other government agencies, and non-government organizations to address the challenges of the 21st Century. In this dynamic, volatile world of the next century, Marines will find themselves conducting humanitarian operations, peacekeeping, and high-intensity combat in the same operating area, all in the same day. This type of mission depth will require Marines to work side by side with other government, and even non-government agencies, all of which must be linked together through a tightly woven, integrated command and control architecture.

### **PROGRAM OVERVIEW FOR THE 21<sup>ST</sup> CENTURY**

Concepts alone will not ensure our success. These concepts executed by well-trained, well-motivated, and well-equipped Marines guarantee our success. We can provide the first two elements of this equation. I ask your support in providing the third.

Acquisition programs for OMFTS enabling technologies are well underway. The first operational Advanced Amphibious Assault Vehicle prototype will "roll-out" this summer. The delivery of the first production MV-22 Osprey tilt-rotor aircraft will take place in December 1999. Because of your support, we are on our way to procuring the revolutionary Joint Strike Fighter to equip our pilots with a state-of-the-art, Short Take-Off and Vertical Landing aircraft that will surpass the combined capabilities presently afforded by both the F/A-18 C/D Hornet and the AV-8B Harrier. The time is now ripe for reviewing our force structure and

determining the organization we will need to face the challenges of the next century. We must begin to organize our most effective and valued weapons systems--our Marines--to exploit the new doctrine and the new technologies with which they will soon be equipped.

**Amphibious Fleet Force Structure Requirements.** Amphibious forces are the nation's most flexible and adaptive combined arms crisis response capability. We continue to work with our Navy shipmates to ensure we reach our Defense Planning Guidance resource-constrained, programmatic goal of a 2.5 Marine Expeditionary Brigade (MEB) equivalents in amphibious lift. The requirement ... the capability that we strive to provide to our nation ... remains at 3.0 MEB equivalents.

The requirement for an amphibious force structure which supports sealift for 3.0 MEB equivalents as originally stated in the Department of the Navy lift study, the Mobility Requirements Study, and later in the Quadrennial Defense Review remains a priority requirement. This need has been validated by the Secretary of Defense's Global Naval Force Presence Policy and reoccurring requests by combatant commanders for MEU(SOC)/ARG forces. Currently, amphibious force requirements are fiscally constrained by the Defense Planning Guidance to 2.5 MEBs or 12 ARGs. Today, our commissioned amphibious fleet force structure can only lift 2.07 MEB equivalents of vehicles. This active lift shortfall is

mitigated by the Amphibious Lift Enhancement Plan (ALEP) which retains 2 LSTs in the Naval Reserve Fleet and 4 LSTs/5 LKAs in mothballs. However, ALEP is not a good solution to sealift requirements due to time constraints of 180 days to prepare mothballed ships to get underway. This condition accepts risk as it precludes them from participating in major theater war operational plans and, in the unlikely event the ships do become available, their characteristics will be inconsistent with the OMFTS concept and modern equipment.

By FY08, plans call for the delivery of the last of 12 LPD-17s resulting in an amphibious fleet force that will then consist of 36 ships: 12 big deck assault ships (7 LHD/5 LHA), 12 LPD-17s, and 12 LSD-41/49s. Though fewer ships than currently in the amphibious fleet, procurement of more capable ships and modernization of the older ones equals more capability to the NCA. The Marine Corps has understood this fiscally constrained approach in the past. However, the chaos in the littoral regions of the world has placed an increased demand for a continuous ARG/MEU(SOC) presence and have stretched the current amphibious force structure. The Marine Corps' 3.0 MEB equivalent warfighting and forward presence requirements must be planned now in order to provide the capability the combatant commanders have requested in the past and will continue to require in the future.

The current Navy shipbuilding plan does not meet the Marine Corps requirements to accomplish this in the 21<sup>st</sup> Century. As we have stated numerous times, the Nation needs 3.0 Marine Expeditionary Brigade equivalents of amphibious lift. In terms of ship numbers, this equates to over 14 Amphibious Ready Groups. Specifically, based on today's force structure, the Marine Corps requires two additional big deck amphibious assault ships, two additional LSDs, and three additional LPD-17s above the 36 ship amphibious force that is presently planned for and eventually achieved in FY 2008. If properly funded, our estimate is that we could reach the 3.0 MEB equivalents vehicle lift capability by 2010. The following table illustrates Active Ship Lift Projections and when 2.5 MEB equivalents of vehicle lift capability is achieved based on current planning and programming. The table indicates the continuing shortfall of vehicle stowage areas between now and 2008 which is the critical driver for lift equivalents.

Active Ship Lift Projections (MEBs)					
Year	Troops	Vehicles	Cargo	VTOL	LCAC
1999	2.63	2.07	3.49	2.99	3.38
2000	2.63	2.07	3.49	2.99	3.38
2001	2.75	2.14	3.72	3.25	3.50
2002	2.75	2.14	3.72	3.25	3.50
2003	2.75	2.18	3.71	3.26	3.54
2004	2.80	2.31	3.77	3.31	3.67
2005	2.75	2.39	3.76	3.34	3.71
2006	2.71	2.37	3.74	3.35	3.63
2007	2.66	2.46	3.73	3.39	3.75
2008	2.63	2.50	3.71	3.41	3.75
2009	2.63	2.50	3.71	3.41	3.75

- **LPD-17.** Key to the current procurement plan is your continued support for the San Antonio class ships, the LPD-17s. The operational flexibility of our ARGs will be significantly enhanced with the FY03 delivery of the first two of 12 LPD-17 landing assault ships to be procured between FY96 and FY04. The San Antonio class will be the first class of ships designed from the keel up to execute our OMFTS and STOM concepts. As a class, these ships will overcome amphibious lift shortfalls caused by the decommissioning of aging Austin-class LPDs, LSTs, LKAs, and Anchorage-class LSDs. Each 25,000 ton ship will provide a large lift capacity for the rapid buildup ashore and sustainment of the force from a secure sea-base. These ships will augment the versatility of the LHD and LHA helicopter carriers with well deck and flight operations capability. Individually, these ships will carry 720 Marines, have a vehicle stowage capacity of 25,000 square feet, a well deck sized for two Landing Craft Air Cushion (LCAC), and a flight deck for the simultaneous operation of two CH-53E Super Stallions, or two MV-22 Osprey tilt rotor aircraft or four CH-46E Sea Knight helicopters. The ship will be outfitted with a Rolling Airframe Missile (RAM) system for self-defense and will incorporate design features which present a significantly reduced radar cross section compared to contemporary amphibious ships. The lead contract has been

awarded to Avondale Industries and the FY99 budget contains funding to begin construction of the second ship of the San Antonio class.

Ensuring that the ship possesses a robust self-defense capability as threat systems evolve is key to survivability in the littoral environment where the ship will fight. Maintaining the following projected procurement and delivery schedules and attaining operational readiness of this ship class is key to eradicating existing shortfalls in amphibious lift.

LPD-17 Procurement Plan and Delivery

Profile

	96	97	98	99	00	01	02	03	04	05	06	07	08		Tota l
<b>LPD 17s Funded</b>	1	0	0	1	2	2	2	2	2						<b>12</b>
<b>LPD 17s Delivered</b>								1	2	3	1	3	2		<b>12</b>
<b>Total in Inventory</b>								1	3	6	7	10	12		<b>12</b>

- **LHA SLEP, LHD (Mod), and LHX.** 12 big deck assault ships, LHAs and LHDs, are critical to maintaining our 12 ARG capability. Big decks provide sixty percent of the ARGs troop berthing capacity, seventy-two percent of the ARGs cargo carrying capacity, ninety-three percent of the ARGs aircraft carrying capacity, and are the centerpiece around which the ARG is built. The

LHA ship class reaches the end of its 35-year service life between 2011 and 2015. An LHA Replacement Development of Options Study is currently in progress and will provide an assessment of the LHA replacement options to meet the projected operational requirements. The options are an LHA Service Life extension Program, an LHD MOD, or a new construction LHX. An additional LHD is included in FY 2005 to provide sufficient Large Deck Amphibious Vessels to sustain a 12-ARG force when the first LHA reaches the end of its 35-year life around 2011.

The seventh LHD (*Iwo Jima*) will be commissioned in FY01. As with all big deck amphibious assault ships, *Iwo Jima* is being built to accommodate a 2.5 percent increase of weight that allows for future equipment growth and design upgrades. Unfortunately, just a few years after the commissioning of *Iwo Jima*, this weight increase allowance will be fully utilized with no future growth allowable unless the ship is to operate outside of her design criteria or compromise future capabilities. Over time this design limitation will only exacerbate the stability condition of these big deck amphibious assault ships. To truly accommodate our future warfighting requirements, the logical choice is to transition from the LHD class ship to the LHX just as the Navy plans to transition from the CVN to the CVNX.

**OMFTS Mobility Triad (LCAC, AAV, and MV-22).** The OMFTS concept involves the marriage between maneuver and naval warfare. It will couple doctrine with technological advancements in speed, mobility, fire support, communications, and navigation to identify and exploit enemy weaknesses across the spectrum of conflict. These three items of equipment will be key in making this concept a reality—a mobility triad if you will.

- **Landing Craft Air Cushion (LCAC) Service Life Extension Program**

**(SLEP).** The LCAC is unquestionably crucial to the Navy and Marine Corps team to rapidly build up requisite combat power ashore to achieve our assigned missions. The LCAC was the first component of the mobility triad to enter the fleet in 1984. The LCAC provides ship-to-shore movement for 95% of the Marine Corps' vehicles and heavy weapons. It has proven to be a workhorse, carrying equipment from ship-to-shore at speeds up to 40 knots and proving capable of crossing a wide range of beaches not accessible to other landing craft. However, it is a tired workhorse. LCAC was designed for a 20-year service life. Unanticipated corrosion problems are reducing service life to approximately the 15-year mark. Furthermore, we believe it is not fiscally responsible to support the LCAC's deteriorating electronics suite. Retirement of the first LCAC will occur in 2004 without an LCAC SLEP program. SLEP Phase I corrosion abatement will cost \$3.9M per LCAC and is required to

sustain the craft until further improvements can be accomplished in Phase II. Phase II improvements include the replacement of the LCAC's hull and electronics suite. When completed, these SLEP Phase II improvements will extend the LCAC's life to 30 years and will cost \$10.8M per LCAC. In executing OMFTS, it is absolutely essential for Congress and the Navy/Marine Corps team to properly fund this program.

The Navy is presently building the 91st LCAC that will be delivered early next year. Unfortunately, the current Navy plan is to place 17 LCACs out of service and place them in a lay-up status resulting in a force structure of only 74 LCACs. Of these 74 LCACs, 60 LCACs are necessary for the fiscally constrained 2.5 MEB equivalent lift requirement, 12 LCACs are set aside for training, and two LCACs serve as research and development craft. However, given factors not previously considered in the development of the LCAC force structure such as the new mission of assault lane breaching and losses due to enemy action and mechanical failure, the Marine Corps considers all 91 LCACs to be essential in meeting the 3.0 MEB equivalent lift requirement. Quantity of LCACs has a quality of its own, especially when it is a vital enabler in ensuring that the Marine's buildup rate ashore is faster than that of the enemy. This is how we will win battles...and to win future battles, the Marine Corps will require all 91 LCACs to be in service.

- **Advanced Amphibious Assault Vehicle (AAAV).** The AAAV will join the LCAC as an integral component of the amphibious mobility triad required to execute OMFTS. The AAAV will allow Navy-Marine Expeditionary Forces to eliminate their battlefield mobility gap and, for the first time in the history of naval warfare, to maneuver ashore in a single seamless stroke giving both ship and landing forces sufficient sea space for maneuver, surprise, and protection. The AAAV's unique combination of offensive firepower, armor, nuclear, biological, and chemical protection, and high speed mobility on land and sea represent major breakthroughs in the ability of Navy-Marine Expeditionary Forces to avoid an enemy's strengths and exploit its weaknesses. The AAAV will replace the current AAV7A1 family of assault amphibious vehicles that are now almost 30 years old and remains the Marine Corps number one ground acquisition program. The Marine Corps plans to buy 1,013 systems with an initial operating capability in FY06.
- **MV-22 Osprey.** The final leg in our mobility triad is the MV-22 Osprey tilt-rotor aircraft. MV-22 specific missions include assault support, medium cargo lift, and fleet logistics support. The MV-22's design incorporates the advanced but mature technologies of composite materials, fly-by-wire flight controls, digital cockpits, airfoil design, and manufacturing. It is also capable of carrying 24 combat equipped Marines or a 10,000 pound external load. The MV-22 will

be the cornerstone of Marine Corps assault support possessing the speed, endurance, and survivability needed to fight and win on tomorrow's battlefield. This aircraft represents a quantum improvement in strategic mobility and tactical flexibility for amphibious and prepositioned maritime forces and makes OMFTS a reality. The MV-22 will replace the aging medium lift CH-46E Sea Knights and CH-53D Sea Stallions and remains the Marine Corps' number one and most critical aviation acquisition priority.

**Joint Strike Fighter (JSF).** The JSF will provide the Marine Corps a state-of-the-art, next generation, Short Takeoff and Vertical Landing (STOVL) aircraft to replace the AV-8B and F/A-18A/C/D. It will be a superior performance, stealthy, multi-mission jet aircraft possessing state-of-the-art technology that can operate with full mission loads from amphibious class ships or austere expeditionary airfields. This blend of stealth, performance, and basing flexibility will enable the STOVL JSF to perform a broad range of OMFTS missions including: escorting the MV-22; striking critical deep targets; providing armed reconnaissance, close air support, and suppression of enemy air defenses; and conducting active air defense missions. With the STOVL JSF, Marine aviators will be able to support the full range of OMFTS mission profiles and provide Marine ground forces the precise and timely fire support needed on the 21<sup>st</sup> Century battlefield.

**Naval Surface Fire Support.** To meet the demands of OMFTS and its supporting concept of STOM, the naval services are developing Naval Surface Fire Support systems that will provide flexible and responsive support for maritime maneuver warfare. Moving into the next century, naval forces must be capable of operating effectively in any environment against a wide range of potential adversaries, many who will be capable of employing modern weapons systems that are more capable in terms of range, accuracy, and lethality than those available today. During the course of an operation, fire support requirements change. Naval surface fires must be flexible enough to meet the changing requirements. Early in an operation, commanders seek to shape the battlespace to facilitate ship to objective maneuver, while not compromising tactical surprise. During battlespace shaping, naval surface fires must provide long-range, precision fires capable of destroying or neutralizing key enemy capabilities. During ship to objective maneuver, high-volume, suppressive, neutralizing, and obscuration fires may be necessary to support assaults. Planned naval surface fire capabilities will enable maneuver, provide protection for the force, and destroy, neutralize, or suppress enemy weapons systems--especially those capable of indirect fire. These capabilities will assist in allowing us to engage the enemy in a fashion to make it difficult for him to counter

our actions, place him in a tactical dilemma, and set him up for a decisive blow.

The following programs represent progress in providing the necessary capabilities:

- **Extended Range Guided Munition (ERGM).** The ERGM is a 5-inch projectile with an improved rocket motor and guidance system that will provide a range capability in excess of current naval gun weapons systems and ammunition (41 - 63 nautical miles). The ERGM gains enhanced range and accuracy by combining the Global Positioning System and the Inertial Navigation System with ground and composite technologies. This will enable surface ships to engage targets up to 63 nautical miles. The warhead will accommodate submunition bomblets that are effective against troops and light armor.
- **5” 62 Upgrade Program.** Between FY01 and FY09, the Navy will install the 5” 62 gun on 27 DDGs (1 barrel per ship) and 34 CGs, (2 barrels per ship). The 5” 62 will be the lightest, most accurate naval gun ever built. Ships equipped with the gun will have an effective weapon for anti-surface, strike fire support, and anti-air warfare mission. The gun will deliver over-the-horizon range and provide a new gun shield, reducing overall radar signature, system maintenance and production cost. The 5” 62 will be capable of shooting both ERGM and conventional 5-inch rounds, with potential ranges varying between 13 and 63 nautical miles.

- **Land Attack Missile (LAM).** In order to deliver naval fires to the range eventually required by OMFTS, a rapid response LAM is required. The LAM must be capable of providing a quick response (less than 10 minutes) strike capability to supported Navy-Marine Expeditionary Forces. Two systems, the Army Tactical Missile System modified for shipboard employment and a modified version of the Navy Standard Missile, are being considered to fill this role. Studies are underway to determine the most capable and cost-effective solution.
- **DD-21.** Enhancing naval surface fires significantly, DD-21 will have the mission of providing independent forward presence and deterrence, and operate as an integral part of Naval, Joint, or Combined forces. For the Marine Corps, DD-21 will provide an advanced level of land attack in support of ground campaigns while operating from the littoral environment. The first class in a family of warships designated as SC-21, DD-21 class will comprise 32 ships, replacing the aging Spruance class destroyers and Oliver Hazard Perry class frigates. Initial operational capabilities of the first two ships are scheduled for FY09, with delivery of the last ships scheduled for CY20. In 2020, with delivery of the last DD-21, the land attack surface fleet will number 115 vessels (32 DD-21s, 26 CG-47s, and 57 DDG-57s). DD-21 will have both an Advanced Gun System and a Land Attack Missile, capable of delivering

accurate, responsive, and lethal fires to an objective range of over 200 nautical miles.

**MARITIME PREPOSITIONING FORCE ENHANCEMENT (MPF (E)).** The current situation in Kosovo has again highlighted a deficiency identified during Desert Storm—the requirement for an additional ship to enhance each of our squadrons. The MPF (E) program will add these ships to our existing fleet of thirteen MPF ships. These additional ships will allow us to add the capabilities of a Naval Mobile Construction Battalion, a Navy Fleet Hospital, and an Expeditionary Airfield to our current MPF.

Currently, two of the required three ships are undergoing conversion. The first ship is scheduled to join Maritime Prepositioning Squadron One in January 2000. Conversion of the second ship is being performed by Bender Shipbuilding Corporation. Bender completed its detailed design effort in January in close cooperation with the Military Sealift Command. The estimate to complete the second ship's conversion exceeded our available budget by approximately \$38 million. The Navy examined various options to cover the \$38M shortfall in funding for MPF (E) Ship #2. The Navy's Director of Strategic Mobility Programs (N42) had requested a realignment of \$30M from various programs in the National Defense Sealift Fund and \$8M from the MPF Future R&D funds provided by Congress. While this realignment action was in staffing, the Office of the

Secretary of Defense reprogrammed the \$30M to “jump start” the disaster relief effort under Operation Shining Hope. Sufficient funds are available to continue conversion efforts on Ship #2 until October 1999. However, this will fall short of full conversion and if the additional \$38M is not provided by October 1999, we will have to halt work on Ship #2 and lay her up in an unfinished status.

Further, the Marine Corps still has a requirement for a third ship that is currently unfunded. After carefully analyzing numerous options, we have concluded that obtaining a 20<sup>th</sup> Large, Medium Speed Roll-on/Roll-off vessel (LMSR) and converting an LMSR to meet all MPF (E) requirements is the best solution to our third ship requirement. The Marine Corps has solicited support from Congress to fund these requirements.

**MARITIME PREPOSITIONING FORCE FUTURE (MPF (F)).** The MPF (F) program is still in its infancy. A Mission Need Statement has not yet been approved. Due to the nature of the program it is likely to be an Acquisition Category I program which will be required to fulfill Defense Acquisition Milestones. The Defense Appropriations Act Conference Report originally provided \$10M in NDSF funds for “...maritime prepositioning ship research and development to begin work on design of a new-construction ship to meet MPF-2010 requirements...”

The technologies needed to support the MPF (F) mission requirements are neither fully identified nor defined, and will begin to take shape as this revolutionary concept matures. Initially, the Mission Need Statement followed by an Analysis of Alternatives and development of the Operational Requirements Document must be completed.

However, the MPF (F) concept does articulate several newly desired operational capabilities that can be explored near term. These technology areas include, but are not limited to seabased logistics, selective on-load/off-load, internal ship systems (i.e., automated warehousing, item/pallet/container operations, roll-on/roll-off systems, and flow patterns), external ship system concepts (i.e., ramps, lighterage, and other craft interfaces), modular system/sub-system concepts, and aircraft interface technologies.

A MPF (F) R&D plan to explore these technologies is under development by a joint Navy/USMC MPF (F) Working Group. The Navy intends to apply the remaining \$2M of National Defense Sealift Fund Research and Development funding as an initial increment of an estimated \$50M effort towards investigating technologies related to these concepts.

During the development and demonstration of these technologies, the process will include modeling and simulation, scale modeling techniques, land-based partial and full-scale system demonstrations, and shipboard partial/full

system demonstrations. As practicable, these technologies will be evaluated for testing on existing ships as the force transitions to the new MPF(F) platforms.

**Landing Craft Utility (LCU) Replacement.** An LCU replacement-working group is standing up to recommend a replacement for the aging LCU force that is currently 26 to 38 years old. The working group's objective will be to develop and recommend an advanced Heavy Lift Utility Landing Craft to complement the high-speed, over-the-horizon, ship-to-objective, lift operations of the future. We recommend the procurement of seven LCUs per year for five years resulting in a one-for-one replacement of the current force structure of 35 LCUs.

The LCU replacement physical characteristics requirements must include: a cargo and/or rolling stock payload of 160 – 200 short tons, a minimum speed of 20 knots, a 1000 mile range with the ability to run independently for up to 10 days, the ability to support crew for a long duration while conducting independent operations, increased C4I capability to support long range operations, full compatibility with current and next generation amphibious/MPF ships, suitability for special operations support, i.e., non-

combatant evacuation operations, MPF, joint logistics over the shore, riverine warfare, humanitarian relief missions, and a minimum service life of 35 years.

**AMPHIBIOUS SHIP C4I.** The Marine Corps has looked to the U.S. Navy to provide amphibious ships from which we can launch and execute our operations. We require these platforms to provide us the means to exercise command and control from afloat. Command and control to support the whole spectrum of warfare includes one of the most complex tactical engagements imaginable, the amphibious assault--spanning surface, subsurface, air, space, and land warfare.

Our OMFTS concept provides us a focal point to further develop our doctrinal and material requirements. Within the OMFTS concept, our methodologies of command and control must change to accommodate those changes in scale that we envision in future operations. We look at technology as an enabler for better C2 capabilities. The scale of operations will grow broader geographically with our forces operating from over-the-horizon, converging from multiple axes, and with more joint and combined elements. The operational commanders and staffs will remain afloat as much as possible, reducing the MAGTF's footprint ashore while placing an enormous demand on our C4I afloat requirements. These requirements will range from numbers of terminal devices (workstations, telephones, and radio remotes) to total bandwidth capacity (ship-to-ship, ship-to-shore, ship to objective, and ship-to-JTF). It is our method of

operations that will drive the many key differences that impact our choice of systems.

The current mix of LHAs, LHDs, LPDs, and LSDs provides us with platforms from which we can launch MEU-sized operations. There are C2 systems that are being installed on those ships in the near term which will strengthen that capability and fill in the holes that currently exist. Those ships, however, do not adequately support our requirements to command and control a MEF-sized operation from afloat in either the near or long-term. The Navy has collectively grouped current fleet modernization efforts for many C4I systems under the IT-21 umbrella. This grouping recognizes the synergy that goes with bringing together systems of systems. We are actively engaged with the Navy to ensure that the needed C2 systems are included in all deploying ships to support the needs of the embarked Marines.

The LPD-17 will join the fleet with a robust set of systems including Dual-SHF and Challenge Athena SATCOM systems, Digital Wideband transmission Systems (DWTS), NT Servers, and EPLRS and SINCGARS radios. The LPD-17 will have systems that are more joint interoperable and support the embarked forces in a flexible fashion. This ship class is a success story for C4I. The concept of “Design for Ownership Philosophy” has provided a capable ship. By deferring design decisions on C2 systems until the last moment in the shipbuilding process, a

state-of-the-art suite of equipment can be fitted. The time has come to build on the success of the LPD-17; build on her success even before first steel is cut. The next generation of ships must not only be “Designed For Ownership,” they must also be “Designed For Adaptability.”

## **CONCLUSION**

Our Commandant has provided us with a clear vision of the challenges 21<sup>st</sup> Century conflicts will present. We believe a key component of meeting these challenges is the utility of Navy-Marine Expeditionary Forces. However, these forces must include 3.0 MEB equivalents of amphibious lift if the Nation is to meet these challenges. With your support, a prudent and executable increase in the amphibious shipbuilding program will allow us to be properly postured for the next century.

We will continue to provide innovative concepts to meet the nation’s security needs. We will also continue to provide motivated, well-trained Marines to execute these concepts. With continued congressional support of our Program Objective Memorandum and the Budget Enhancement list, the U.S. Marines, your 911 force, will be able to maintain the high state of readiness necessary to effectively answer the nations call—remaining most ready when the Nation is least ready.

Madame Chairman and distinguished members of the subcommittee, on behalf of your Marines and our Commandant, I thank you for permitting me to address you here today and for the steadfast faith you place in us. I am prepared to answer any questions you may have.