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PROJECTION IN THE 21ST CENTURY

Madame Chairman and distinguished members of the subcommittee, I am pleased to have this opportunity to discuss littoral force protection and power projection in the 21st Century. Today, thanks to the support that 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. Through your unflagging support, 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 82nd 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.

Our Nation faces a variety of global challenges to its vital interests. The Marine Corps, in partnership with the Navy, is critical to meeting those challenges. Together, we provide Navy-Marine Expeditionary Forces--integrated air, land, and sea combined arms teams. These unique, mobile forces are self-sufficient and able to operate unfettered from sea bases in international waters. When needed, they can immediately operate ashore in austere areas throughout the globe. Navy-Marine Expeditionary Forces play a significant role as powerful instruments of

national policy and provide the National Command Authorities (NCA) with a set of flexible military options that can support foreign policy initiatives.

From their sea bases 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 provide power projection options tailored to the situation. Such was the case last year when 22nd Marine Expeditionary Unit (Special Operations Capable) (MEU(SOC)) and Amphibious Squadron 8 reinforced the U.S. Embassy in Albania with 55 Marines. Indeed, their ability to rapidly and appropriately respond throughout the spectrum of conflict from peacetime to wartime situations is an essential ingredient of our Nation's ability to

promote peace, free enterprise, democracy, and actively shape regional security environments.

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 Navy-Marine Expeditionary Forces ability to initially command the seas. From seabases, Navy-Marine Expeditionary Forces are able to dominate a foe in the littoral battlespace using a variety of organic power projection options. 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.

The 21st Century will place a higher premium on Navy-Marine Expeditionary Forces. They will remain an effective means with which we will protect global interests. They also reflect America's will and ability to exert global leadership. Navy-Marine Expeditionary Forces, however, can do more than that. They ensure strategic balance. Navy-Marine Expeditionary Forces help mitigate uncertainties, and in doing so, preserve the predominance of America's military strength. During the course of my remarks this afternoon, I would like to discuss the key concepts and issues that will enable the Corps to move into the next century.

THE ENVIRONMENT

I believe it is important that I 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 that our national security strategy had long been oriented, we have witnessed the beginning of a new era in world violence. The break-up of the former Soviet republics and Yugoslavia, the tragedies in Somalia and Rwanda, and the conflict in Liberia, all signify the trend toward nations splintering along ethnic, religious, and tribal lines. This trend suggests 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 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 once every five weeks, an increase in taskings threefold. Many of these requirements have caused us to split apart Marine Expeditionary Units and Amphibious Ready Groups (ARG), our continuously forward deployed crisis response forces. This response to multiple crises by less than fully capable elements of a tactical unit has become a routine occurrence in almost every theater. Every Landing Force 6th 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, real-world example involving the 22nd 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 intensive period, these 2,100 forward deployed Marines of 22nd MEU(SOC) visited 15 countries, participated in nine NATO/bilateral training exercises, supported four operational contingencies, and conducted one emergency rescue at sea. In all, 22nd MEU(SOC) spent approximately 82% of its deployment in a split-MEU configuration.

Our Commandant 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 problem is the knowledge 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. 70% of the world's population lives within 200 miles of the sea, and 80% of the world's capitals are located within 300 miles of the coast. 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, a population, which is moving from the rural to the urban environment. Today 45% of the world's population lives in the urban environment. By 2015, 61% of the world's population will be city dwellers.

This environment will 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 a competition for resources. The competition 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 warfighting, peace

operations, and humanitarian operations. 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 environment we envision for the future. A multi-polar world of state and non-state actors competing for resources and against ideals that maintains a status quo. The competition will give rise to conflicts, which 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 manners that will make it difficult for us to bring our 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 capable of rapidly responding to crises or potential crises anywhere in the world. In essence, Navy-Marine Expeditionary Forces are a critical component in executing the National Military Strategy given their ability to shape, respond to, and prepare for this environment.

THE MARINE CORPS IN THE 21ST CENTURY

To be relevant in the 21st Century, military forces will have to be on the scene and multimission capable. *Forward ... From the Sea* and *Operational Maneuver From the Sea* (OMFTS) 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 such as 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 (DOTES) 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 DOTES accordingly. This is what our Combat Development System (CDS) and Concept Based Requirements Process is all about. Our Concepts Division has published several OMFTS supporting concepts to "drive the CDS train." Our Doctrine Division now periodically reviews our standing doctrine against the outcomes of our Warfighting Laboratory's experimentation program. The transformation process is firmly in place and making Marines that are capable of meeting the chaotic challenges of the 21st Century battlefield. Major revisions of Marine Combat Training and Infantry Training Battalion curricula have been implemented, and our field leadership courses have been revamped with a strong emphasis on developing combat decision-makers.

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, 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 have developed 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” 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 sea-based logistics, fires, and command and control. Sea-basing 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 iron mountain of support and supply which accompany amphibious operations--that support and supply will now come from the relative safety of sea-basing.

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 sea-basing. The principal gain accrued from not stopping at the beach is the ability to retain the initiative and surprise inherent in an attack 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.

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 in order to ensure MPF operates in consonance with OMFTS and STOM, we have developed an MPF concept that will revolutionize our method of operations. MPF

2010 or MPF Future is the concept, which describes how next generation MPFs will contribute to forward presence and power projection critical to supporting our National Security Strategy and meeting the 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 sea-based conduit for logistics support. This support will flow from bases located in the US or overseas, then onto Marine units conducting operations ashore or at sea. This might be accomplished as part of a larger sea-based logistics effort, which 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 for 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 21st 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.

Military Operations on Urbanized Terrain (MOUT). Given current projections of dramatic increases in urbanization, especially in the volatile developing world, Marines are preparing for extensive operations in cities. Historically, MOUT have been attrition style operations, relying upon overwhelming firepower to achieve the destruction of the enemy's material assets. Such attrition style combat exacts a toll in casualties and infrastructure destruction, which is inconsistent with the OMFTS warfighting philosophy. In the future, the Marine Corps will adapt maneuver warfare to the urban environment to accomplish its mission at significantly lower human and material costs. Marines will achieve the transformation to urban maneuver warfare through enhancements in the following seven capability areas: command and control, measured firepower,

multi-spectral mobility, awareness, adaptability, force protection, and sustainability.

The Marine Corps is currently in the third year of the first Five-Year Experimentation Plan (FYEP). The FYEP is divided into three phases of advanced warfighting experiments: *Hunter Warrior*, *Urban Warrior*, and *Capable Warrior*. *Hunter Warrior* began in 1995 and focused on the extended, dispersed battlespace and small unit enhancements to training and capabilities. MOUT is the framework for the *Urban Warrior* Advanced Warfighting Experiment currently being conducted by the Marine Corps Warfighting Lab. Its focus is the development of tactics enabling technologies for urban battlespace. *Urban Warrior* is being conducted in association with the USCINCPAC sponsored exercise KERNEL BLITZ, the Navy's Fleet Battle Experiment Echo, and the first Extending the Littoral Battlespace Advanced Concept Technology Demonstration. *Capable Warrior* begins in April 1999 and will seek to integrate the operational concepts, tactics, and technologies validated during *Urban* and *Hunter Warriors* and will focus on filling the gaps needed to implement the Marine Corps' concept of OMFTS.

Anti-Armor Operations. The media and some sectors of the defense industry extol precision-guided munitions as the dominant factor on the future battlefield, particularly for the defeat of armored forces. There is in many quarters

the opinion that “brilliant” anti-tank weapons will virtually preclude the use of armored vehicles. This concept anticipates that Marines will face hostile armored vehicles in most conflicts. Although sophisticated long-range systems are under development, so too are active protection systems, advanced armor, and other countermeasures specifically designed to counter these threats.

By 2015, the performance of today’s best-armored vehicles will be the norm for much of the world. There will be in excess of 150,000 tanks and 275,000 fighting vehicles in service, employing systems, subsystems, and technologies acquired from multiple countries. Anti-armor operations discuss a future vision for defeating enemy armor. The concept outlines a fully integrated approach which links information operations with both lethal and non-lethal long-range naval and aviation fires, and organic direct fires.

Information Operations. Information Operations involve actions taken to affect information and information systems while defending our own. Aimed to influence decision-makers, information operations are applicable across the spectrum of civil-military operations--from peace to conflict--and at all levels of war. Marine Corps information operations support maneuver warfare by denying, degrading, disrupting or destroying the enemy commander’s ability to command and control his forces. In the future, information operations conducted by MAGTFs will consist of battlespace shaping, force enhancement, and force

protection activities enhancing and enabling their ability to conduct military operations as described in OMFTS.

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). 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, i.e. not in direct hot battlespace, under the protective umbrella of 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.

Joint Concept for Non-Lethal Weapons (NLW). The Marine Corps has led the development of NLW to provide the Services greater flexibility. These weapons are crucial to reducing tensions, controlling potentially explosive events, and minimizing casualties among innocent civilians. To expedite the development and fielding of NLW, the Secretary of Defense has appointed the Commandant of the Marine Corps as the executive agent for the joint NLW program. This joint concept establishes a set of guiding principles to ensure common direction of the Services and agencies (both Defense and non-Defense) and efficient use of resources in the development of non-lethal capabilities. The Marine Corps believes that NLWs provide commanders increased options for resolving complex problems encountered across the range of military operations and expand policy choices. They provide a credible capability to use discriminate, measured force to influence pre-conflict, conflict, and post-conflict situations.

PROGRAM OVERVIEW FOR THE 21ST 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" the summer of 1999. The delivery of the first production MV-22 Osprey tilt-rotor aircraft will take place shortly before. And, we are well 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.

PROGRAMS OF INTEREST TO THE CORPS

Amphibious Fleet Force Structure Requirements. Amphibious forces are the nation's most flexible and adaptive combined arms crisis response capability.

The Navy-Marine Corps team provides the NCA its only self-sustainable forcible entry capability. Forcible entry from the sea remains the Marines' forte. We continue to work with our Navy shipmates to ensure we reach our resource--constrained, programmatic goal of a 2.5 Marine Expeditionary Brigade (MEB) equivalent in amphibious lift. The requirement ... the capability that we strive to provide to our nation ... remains at 3.0 MEB equivalents. The goal of the naval services is to ensure a credible amphibious capability is ready when the nation says, "land the landing force."

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 and Mobility Requirements Study and later in Quadrennial Defense Review remains a priority requirement to be validated by the Secretary of Defense's Global Naval Force Presence Policy and reoccurring request by component commanders for MEU(SOC)/ARG forces. Currently, amphibious force requirements are fiscally constrained to 2.5 MEBs or 12 ARGs. Today, our active commissioned amphibious fleet force structure can only lift 2.07 MEB equivalent 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. This ALEP is not a very good solution to sealift requirements due to time constraints of 180 days to prepare mothballed ships to get underway. This

fact precludes them from participating in either MTW operational plans and, in the unlikely event the ships do become available, their characteristics will be inconsistent with the OMFTS concept.

By FY09, 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 decks (7 LHD/5 LHA) the 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 understands this fiscally constrained approach as long as funding is not cut, reduced, or delayed. However, the absence of active commissioned amphibious lift that fulfills our 3.0 MEB warfighting requirement will continue to cause concerns about when we will eventually achieve this required force structure.

- **LPD-17.** Key to the 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 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 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, 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 with initial deliveries scheduled for FY03. The FY99 budget proposal contains funding to begin construction of the second ship of the San Antonio class.

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

- **LHA SLEP, LHD (Mod), and LHX.** 12 big deck assault ships, LHAs and LHDs, are critical to maintain our 12 ARG capability. Big decks provide 60%

of the ARGs troop berthing capacity, 72% of the ARGs cargo carrying capacity, and 93% of the ARGs aircraft carrying capacity, and are the centerpiece of the ARG. 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. In replacing the LHAs, an additional LHD and follow-on LHX class ship will better serve and meet the Marine Corps requirements and will be more fiscally prudent than a Service Life Extension Program (SLEP) for the LHA class. It makes good warfighting sense and good business sense.

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). LCAC was the first component of the mobility triad to enter the fleet in 1986. The LCAC provides lift 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 LCAC's deteriorating electronics suite. Retirement of the first LCAC would occur in 2004 without an LCAC SLEP program. In executing OMFTS, it is absolutely essential for the Navy/Marine Corps team to properly fund this program.

- **Advanced Amphibious Assault Vehicle (AAAV).** The AAAV will join the LCAC and the MV-22 as integral component of the amphibious mobility triad required to execute OMFTS. The AAAV will allow Navy-Marine Expeditionary Forces to eliminate the 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 AAV 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 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 combat multiplier represents a quantum improvement in strategic mobility and tactical flexibility for amphibious and prepositioned maritime forces making 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.

Naval Surface Fire Support. To meet the demands of OMFTS and its supporting concepts of STOM and future MOUT, 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 an asymmetrical manner, making it difficult for him to counter our actions, placing him in a tactical dilemma, and setting 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 fiscal years 01 and 09, 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 naval 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 on an interim basis. 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 internal part of the Navy, Joint, or Combined forces. For the Marine Corps and Army, 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.

Chemical Biological Incident Response Force (CBIRF). CBIRF was activated in April 1996. CBIRF's capability supports PDD 39 and enhances DOD's ability to provide a consequence management (CM) force in order to respond to terrorist initiated Chem/Bio incidents or credible threats. CBIRF is capable of deploying domestically or overseas to provide force protection and/or mitigation in the event of a weapon of mass destruction (WMD) incident. Additionally, it is prepared to respond to no-notice WMD incidents with a rapidly deployable response force of 80 personnel focusing on detection, search and rescue and medical.

Today, CBIRF is focusing its efforts in two areas; first, on developing countermeasures and force protection training and equipment support for deploying MEU(SOC)s and, second, assisting federal, state, and local response

forces in developing their own training programs on how to manage the consequences of a Chem/Bio incident.

Most recently, CBIRF has operationally deployed in support of the State of the Union Address and the Papal visit to St. Louis, MO. CBIRF supports exercises such as West Wind 99 held in Los Angeles, CA which tested the response of city, state, and federal response forces to a simulated terrorist WMD incident. CBIRF continues to be innovative in the development of CM concepts, doctrine, organization, tactics, techniques, procedures, and equipment to remain the nation's premier incident response force.

Marine Corps Fleet Antiterrorism Security Team (FAST). FAST companies are a unique and highly effective tool against the threat of terrorism at Naval installations and ships globally. For more than a decade, FAST Marines operating from Norfolk, VA, have been the Naval service's premier antiterrorism experts and have participated in such operations as JUST CAUSE (Panama), RESTORE HOPE (Somalia), and numerous other smaller but equally challenging contingencies. More recently, in response to the terrorist bombings in East Africa, FAST platoons deployed from Bahrain to Nairobi, Kenya within 24 hours and from Naples, Italy to Dar es Salaam, Tanzania within 48 hours. Upon their arrival, these platoons stabilized the security situation and provided a secure environment for the recovery/treatment of victims, the initiation of an investigation to the

bombings, and the establishment of alternate embassy sites. FAST Marines are superbly trained in specialized antiterrorism tactics, techniques, and procedures and are experts in the employment of small arms weapons, sniper techniques, and explosive breaching techniques. Because of FAST's enormous utility, a second FAST company was formed in Yorktown, VA during 1998 using structure created by the disestablishment of shipboard Marine detachments.

FAST, in addition to being forward deployed in strategic locations, provides security for nuclear warship refueling and defueling operations at several major U.S. shipyards. It also performs other missions as approved by the Chief of Naval Operations in coordination with the Commandant of the Marine Corps. FAST will continue to play an integral Naval force protection/antiterrorism role in the future. Modest growth in FAST structure and vastly improved capability is likely in the near term.

Mine Countermeasures. We consider this area of force protection essential to our ability to conduct power projection operations within the littorals. The Marine Corps is working "hand-in-glove" with the Navy towards operationally relevant solutions to protect the force as it transitions from ship to objective in OMFTS. Specifically, we are working with the Navy to solve many of the future issues of countermine and counter-obstacle (CMCO) operations to assure we can not only transit the 3000 nautical miles to the objective area but also assault

through the last 3000 meters. In an effort to focus our MCM requirements, we have developed two related Required Operational Capabilities within our Marine Corps Master Plan. Required Operation Capability #2 (Support Navy Development of Mine and Obstacle Clearance from the High Water Mark Seaward) and Required Operational Capability #17 (Capability to Record, Mark, Detect, Clear, Avoid, and Remove Mines and Obstacles from the High Water Mark Inland). The following efforts represent progress made in these areas:

- **Anti-Personnel Obstacle Breaching System (APOBS).** The APOBS is intended to neutralize all single impulse anti-personnel mines (surface laid and buried) and clear a path through standard wire obstacles from the high water mark inland. This system will clear a path 0.6 meters wide up to 45 meters from the leading edge of the obstacle. It is a lightweight, portable system that combines the shrapnel cutting capabilities of grenades interconnected on a 45 meter long line charge. The Marine Corps plans on procuring 3399 APOBS from FY00 to FY04.
- **Coastal Battlefield Reconnaissance and Analysis (COBRA).** COBRA is an Unmanned Aerial Vehicle (UAV) based standoff mine detection system designed to locate minefields in the littorals in support of amphibious and expeditionary operations and can also be employed in support of inland operations. COBRA is intended to detect surface and buried mines as well as

detecting obstacles and fortifications in the surf zone (10 feet of water to the High Water Mark). The Marine Corps intends to procure 24 COBRA from FY04 to FY10.

- **Combat Breacher Vehicle (CBV).** The CBV provides an obstacle breaching capability integrated on a M1 tank chassis with a mine clearing blade, automatic depth control, automatic weapons stations, commander's control station, and a power driven arm. The system will have comparable mobility and agility to an M1A1 Abrams Tank with crew under-armor protection, and full-width mine clearing and obstacle reducing capabilities. The Marine Corps intends to procure 52 CBV from FY03 to FY13.
- **Very Shallow Water Mine Counter-Measures (VSW MCM).** One of our most promising endeavors has been the Very Shallow Water Mine Counter-Measures (VSW MCM) unit in Coronado, CA. The Detachment is organized into a small staff with a diver platoon and a marine mammal systems platoon. The Detachment will remain part of the Navy's dedicated Mine Countermeasures Force until technology enables mission accomplishment free of diver-in-the-loop systems and can be configured organic to our deploying forces. An Initial Operational Capability to deploy diver and marine mammal platoons is expected to occur in FY00 and FY01 respectively.

- **Shallow Water Assault Breaching System/Distributed Explosive**

Technology

(SABRE/DET). The Navy's near term surf zone minefield breaching systems to be deployed from the LCAC are the Shallow Water Assault Breaching System (SABRE), and the Distributed Explosive Technology (DET). These systems will be deployed in the three to ten feet and mean high water to three feet of seawater regimes respectively with each system optimized for its operating depth. The SABRE and DET programs are expected to achieve Milestone III acquisition status during this Fiscal Year (FY) after completion of live fire tests from an LCAC. These systems will reach IOC in FY03. The Marine Corps supports the Navy's development of these Assault Breaching Systems. These systems will provide the Marine Corps the capability to breach through the Surf Zone that was so evidently lacking during Desert Storm. Continuous product improvements to these systems and the development of follow-on systems, particularly in the area of Craft Landing Zone mine and obstacle clearance, are required to provide the enabling capability critical to landing forces conducting OMFTS via both AAV and LCAC.

KC-130J. Marine aviation needs the KC-130J. Recent results from a service life

assessment program have confirmed that the actual fatigue life remaining on the Corps' venerable fleet of KC-130F/R Aerial Refueler/Tactical Transports is significantly less than previous data from NAVAIR. The KC-130J's increase in speed (+21%), Range (+35%), state-of-the-art flight station which includes two Head Up Displays (HUDs), night vision lighting, fully integrated digital avionics architecture, defensive systems, external wing tanks, improved aerial refueling system and advanced propulsion system will provide the MAGTF Commander with a state-of-the-art, multi-mission, tactical aerial refueler/transport well into the next century. Greater reliability and maintainability (14 of 15 KC0130F/R/T readiness degraders eliminated), coupled with lower operating and support costs, will result in lower life cycle costs for the KC-130J. In addition to the increased warfighting capability associated with the newer technology inherent in the KC-130J, the Marine Corps would realize the added benefit of a reduction in manpower required to operate and maintain a KC-130J fleet.

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 21st Century battlefield.

Lightweight 155mm (LW155mm) Howitzer. The LW155mm howitzer will replace the aging M198 155mm towed howitzer as the only cannon system in the Marine Corps Inventory. The LW155mm howitzer retains the current M198 howitzer's range but will weigh 7,000 pounds less, and will be compatible with all existing and future 155mm munitions. The LW155mm howitzer will have significantly improved transportability and mobility by sea, air, and land platforms. Capable of being transported by the medium lift MV-22 Osprey aircraft, the LW155mm is designed for expeditionary operations requiring light, highly mobile artillery.

Simulators. The development of basic individual skills, combined with challenging individual and collective sustainment training, is essential, especially during peacetime. Realistic standards-based and performance-oriented training is used to enhance combat readiness. The U.S. Marine Corps is continuing to explore

and field a number of new systems and simulators that will contribute significantly to training effectiveness while reducing overall training costs. Systems that are being used or will be fielded in the Marine Corps in the future are: the Indoor Simulated Marksmanship Trainer-Enhanced (ISMT-E), the Multiple Integrated Laser Engagement System (MILES) 2000, the Tank Weapon Gunnery Simulator System (TWGSS), The Combat Vehicle Appended Trainer (CVAT), the Precision Gunnery Training System (PGTS), the Light Armored Vehicle-Full Crew Interactive Simulator Trainer (LAV-FIST), and the Closed Loop Artillery Simulation System (CLASS).

CONCLUSION

Our Commandant has provided us with a clear vision of the challenges 21st century conflicts will present. We believe a key component of meeting these challenges is the utility of Navy-Marine Expeditionary Forces. As elements of national power, our military is a critical factor with the Navy/Marine team as key contributors. We will continue to provide innovative concepts to meet the nation's security needs. We will also continue to provide the well-motivated, well-trained Marines to execute these concepts. With continued congressional support of the 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—the nation’s force of choice.

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.