U.S. MARINE CORPS

CONCEPTS & PROGRAMS

2010

A MESSAGE FROM THE COMMANDANT OF THE MARINE CORPS

As we continue to train the Iraqi and Afghan security forces for taking control in their respective countries, and in light of rising economic and energy concerns, the Marine Corps faces a number of challenges in 2010. Our standing pledge to Congress remains to exercise fiscal discipline and act as good stewards of the resources they provide while maintaining the capability to operate across the full range of military operations. As the Nation's premier expeditionary force in readiness, the Marine Corps must remain fast, austere, and lethal.

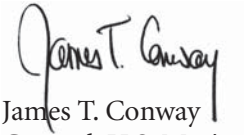
In November 2009, we established the Marine Corps Expeditionary Energy Office to analyze, develop, and direct ways in which we can gain efficiencies on the battlefield in fuel and water consumption. Our national economy is unstable and institutionally, we also face significant fiscal challenges as we look to reset the Marine Corps from operations in Iraq, support the President's strategy in Afghanistan, and modernize our equipment to ensure its availability and capability to meet future requirements.

This edition of *Concepts and Programs* offers a review of our operations in 2009, underscoring how engaged America's Marine Corps has been — not only in Iraq and Afghanistan but around the world, on training exercises and in support of the engagement strategies of our country's combatant commanders. For the

Marine Corps in 2010, this volume provides a snapshot of how we have structured the force to support our roadmap for the future, *Marine Corps Vision and Strategy 2025*. We intend for *Concepts and Programs* to also be a concise, useful reference of all our major programs. Our greatest commitment is to our Marines and their families; and as the Marine Corps Almanac shows in the last chapter, appropriations for our personnel comprise more than half of our overall budget.

Our forces in Afghanistan will grow during 2010, and the high operational tempo we have experienced over the last several years will continue. As a naval expeditionary force and an elite air-ground team, the Marine Corps is ready and willing to go into harm's way on a moment's notice and do what is necessary to make our country safer — this is what America expects of her Marines. In the complex and dangerous security environment of the future, the Marine Corps stands ready for the challenges ahead.

Semper Fidelis,



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General, U.S. Marine Corps

2010 U.S. MARINE CORPS
CONCEPTS & PROGRAMS

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CHAPTER 1

THE UNITED STATES MARINE CORPS: AMERICA'S EXPEDITIONARY FORCE IN READINESS

The strategic environment for the United States and its Armed Services will continue to be defined by a global struggle against violent extremist ideologies that seek to overturn the international state system and do harm to America and its allies. Beyond this transnational struggle, the United States will face other threats, including a variety of irregular challenges; the quest by both state and non-state actors to obtain nuclear and other weapons of mass destruction; and the rising conventional military power of peer states.

Likewise, the operational environment in which Marine forces are to be employed will be more complex, densely populated, and urbanized. It will be characterized by adversaries who exploit complex terrain, use irregular and conventional tactics, use primitive and sophisticated technology, and capitalize on the advantages that access to the Internet and electronic media provide. It will be rife with interdependent power, service, and information systems; it will be populated by a younger and more disenfranchised society; and it will be driven by a unique set of cultural, political, and historical conditions.

Within this environment, the demand for Marine forces to support overseas operations will remain high. The Marine Air-Ground Task Force (MAGTF) in Al Anbar, Iraq is scheduled to come home in 2010, but commitments to Afghanistan will concurrently increase to over 19,000 Marines. While this increase is focused on the Marine Expeditionary Brigade-Afghanistan (MEB-A), we also continue to provide Embedded Training

Teams to the Afghanistan National Security Forces and Marine Corps special operations companies, as well as individual Marines for higher headquarters requirements. The conflict in Afghanistan will continue to place heavy requirements on our personnel, equipment, and families. Marine forces will also continue to be deployed to support combatant commander engagement and security cooperation activities world wide, while maintaining the capability and posture to respond to crises and small-scale contingencies.

Although significant Marine participation in Iraq might be coming to a close, the requirements of Afghanistan will place a challenge on our ability to meet the goal of a 1 to 2 ratio for deployment-to-dwell time — that is, the ratio of time Marines are forward deployed to the time back home for leave, training, and exercises. We recognize that our Marines and their families have given much of themselves to the Corps and the Nation during the last eight years. A return to pre-2001 deployment ratios of 1 to 3 for the active component is necessary in order to reset and reconstitute the force. Our Marines continue to answer the Nation's call and perform magnificently in these trying and historic times.

This recent Marine Corps deployment tempo has dictated an almost singular focus on preparing units for their next rotation and counterinsurgency operations in Iraq and Afghanistan. This focus and the associated deployment rate of many units threaten to erode the skills needed for other vital Marine Corps missions, particularly combined arms maneuver and amphibious operations. This challenge has been particularly acute at the Marine Expeditionary Brigade (MEB) and Marine Expeditionary Force (MEF) levels, where opportunities to maintain our historically high proficiency in these operations have been degraded. Additionally, the international security environment has increased combatant commanders' needs for persistent forward-engagement activities. Marine forces will be called upon to address combatant commander requirements in the littorals, and will focus on expanding persistent forward-engagement activities as part of a joint Navy-Marine Corps team.

The operating environment of Afghanistan is exceedingly complex but is indicative of future operations. As difficult as the physical aspect of operations in this environment will be, the cultural terrain will be far more challenging. The ability to comprehend and effectively "maneuver" in the cognitive and cultural dimensions of the modern operating environment will be paramount. In order to be successful in this complex operating environment, continued development of

our core competencies among our operational forces is essential.

OUR CORE COMPETENCIES: FOUNDATION FOR TOMORROW'S CAPABILITIES

The Marine Corps' *Vision and Strategy 2025* established a conceptual direction for the Marine Corps to meet the challenges of an uncertain but dangerous security environment. It articulates how the Marine Corps' six core competencies posture the Marine Corps to meet future security needs. The core competencies are the fundamental contribution that the Marine Corps makes to the Nation's defense. Though enduring, they are not static. New competencies must be developed as necessary and honed to meet emerging challenges. Our core competencies reflect our particular skill sets, and thus describe what we do to meet combatant commander requirements while posturing the Marine Corps for the future. Thus, our capability and capacity to achieve these core competencies will form the basis for the future Marine Corps that is capable of providing a force in readiness to:

(1) Conduct persistent forward naval engagement and is always prepared to respond as the Nation's force in readiness. The Marine Corps is devoted to an expeditionary way of life. We understand that true readiness means much more than being deployable. It requires a force that is deployed with our Navy shipmates and engaged in the littorals, shaping the operational environment, and contributing to the prevention of conflict. This agile force can react rapidly across the range of military operations and must prevail, even thrive, in the uncertainty and chaos of emerging crises.

(2) Employ integrated combined arms across the range of military operations and can operate as part of a joint or multinational force. Our MAGTFs blend the art and science of executing combined arms operations from air, land, and sea. Marine employment and integration of air- and ground-based capabilities reflect our innovative approach to warfighting. History has shown that this approach can be applied with effect in missions that range from security cooperation to major combat operations. Our MAGTFs are task-organized for each mission and can be employed independently or as part of a joint or multinational force.

(3) Provide forces and specialized detachments for service aboard naval ships, on stations, and for operations ashore. The Marine Corps and the Navy share a common heritage. Marines have served aboard Navy ships as marksmen, as embarked MAGTFs, as naval aviators, and as specialized detachments afloat. This heritage is reflected in our doctrine and in how we design our equipment and weapons systems. Our modernization programs for the future are being designed to allow Marine Corps forces to seamlessly deploy, project power, and fight from naval vessels or austere expeditionary bases, or any combination thereof. Our close association with the Navy continues today along with a growing in-

teraction with the Coast Guard. The 2007 tri-service maritime strategy, *A Cooperative Strategy for 21st Century Seapower*, articulates a renewed emphasis on integrated naval capabilities and capacities.

(4) Conduct joint forcible-entry operations from the sea and develop amphibious landing force capabilities and doctrine. When access to critical regions or allies is denied or in jeopardy, forward-deployed, rapidly employable Marine Corps forces are trained and ready to execute amphibious operations to overcome enemy defenses. Together, the Navy and Marine Corps provide the Nation with its primary capability to swiftly project and sustain combat power ashore in the face of armed opposition. We leverage available joint and naval capabilities, project sustainable combat power ashore, and secure entry for follow-on forces. Our sea-based MAGTFs provide the Nation with expeditionary forces to conduct initial operations independent of local infrastructure, or in undeveloped, austere areas. This capability enables the accomplishment of amphibious joint forcible entry operations as well as various missions across the range of military operations. These strategic capabilities require focused amphibious resources and doctrine.

(5) Conduct complex expeditionary operations in the urban littorals and other challenging environments. The Marine Corps' historical ability to conduct expeditionary operations, such as irregular warfare against emerging threats in complex environments, is well documented. These operations include counterinsurgency; counterterrorism; train, advise, and assist activities; and stability tasks. The complexity of these missions has increased due to the presence of large numbers of noncombatants, urbanization in the littorals, and the dynamics of the information environment. Marines are specifically trained and broadly educated to understand cultures and populations, to thrive in chaotic environments, and to recognize and respond creatively to demanding situations.

(6) Lead joint and multinational operations and enable interagency activities. The complex nature of existing security challenges demands capabilities that harness the strengths of all the instruments of national power. Marines are well qualified to enable the introduction of follow-on forces and facilitate the integration of military and interagency efforts. This interoperability mandates the establishment of enduring relationships and the orchestration of diverse capabilities, organizations, and cultural awareness across all aspects of an operation.

These six core competencies provide the focus for the Marine Corps of today and into the future. As we prepare for an unpredictable future, we continue to adapt to the ever-changing character and conduct of warfare, while remaining cognizant of its fundamentally unchanging nature. Thus, the institutional foundation of people, equipment, and concepts is paramount to achieving these core competencies and the range of capabilities that they provide the United States.

In December 2009, the *Marine Corps Service Campaign Plan* 2009-2015 (MCSCP) was approved. This directive document maintains the momentum established by *Vision and Strategy 2025* and constitutes the "execution document" that will guide the Service toward achieving *Vision and Strategy 2025* end-states, while simultaneously providing guidance that directs Marine Corps resources to support the combatant commanders and meet the Commandant's priorities. This campaign plan is intended to provide the necessary guidance for executing the Commandant's statutory requirement to develop, organize, train, equip, and deploy Marine forces, and identifies key outcomes, sets objectives, and provides guidance to maintain proficiency in our core competencies. The MCSCP will focus on actions to be taken within the Future Years Defense Program (FYDP) by Headquarters Marine Corps, the supporting establishment, and the operating forces. The MCSCP will be actively managed, periodically reviewed, and updated as required.

THE INSTITUTIONAL FOUNDATION

Every organization requires a solid foundation in order to be successful, and for the Marine Corps that foundation is our people, our equipment, and our concepts. We have developed a number of service and joint concepts to articulate how the force will need to evolve to remain ready.

People and Organization

Key to maintaining a force in readiness is having a balanced force capable of responding across the range of military operations. We believe a force level of 202,000 Marines achieves that balance and allows us to maintain our current focus on irregular warfare and increase training in other areas, specifically amphibious operations, larger scale combined arms operations, and security cooperation.

Recent changes in organization ensure our enduring capability to meet the challenges across the range of military operations, both today and into the future. These include: increasing the Marine Corps Training and Advisory Group (MCTAG) from 41 to 181 Marines during FY 2011; bringing the Marine Corps Information Operations Center (MCIOC) to initial operational capability (IOC) in FY 2010 and full operational capability (FOC) in FY 2011; enhancing the Center for Advanced Operational Culture and Learning (CAOCL) through establishment of Language Learning Resource Centers (LLRC) at all eight major Marine Corps bases to facilitate culture and language training for all Marines; and bringing Marine Forces Cyber Command (MARFORCYBER) to FOC in FY 2011.

While we recruit Marines, we retain families. More than 45 percent of our Marines are married and there are almost as many dependents as there are Marines in our active component. We know that Marines perform better when their families have access to quality housing, healthcare, child development services, and

education. Moreover, Marines are able to go forward in defense of the Nation and maintain their focus knowing their families have a support network looking after them back at home.

Since 2007, the Marine Corps has been engaged in a multi-year plan to transition family support programs to a wartime footing. We have reformed our family readiness programs at every level of command at all of our installations. We have created 415 full-time family readiness officers at the battalion and squadron level. We have capitalized on the latest in technology to improve how commanders communicate with families in their unit and how deployed Marines maintain contact with their loved ones back home. We are also investing in additional capacity at our child development centers with the intent to create 1,670 new spaces across six of our installations. Continued support of quality of life programs for Marines and families will ensure that our readiness efforts are sustained at the proper levels.

Equipment

As we conduct a responsible drawdown from Iraq and continue to operate in the harsh terrain of Afghanistan, continued funding to reset equipment is imperative. The refurbishment and reset of our equipment sets, to include afloat and ashore prepositioned equipment and depot war reserves, are critical to the sustainment of the strategic reserve. In parallel with reset of our equipment, we need to also modernize across the MAGTF for tomorrow's fight.

Ground Combat Element

The individual Marine is the core of who we are, and our Ground Combat Element (GCE) is built around that Marine. In turn, the GCE is the core around which the MAGTF is built and modernization efforts are focused on the individual Marine, ground combat vehicle mobility, and fire support.

Modernization in support of the individual Marine will focus on his ability to shoot, move, and communicate. The procurement of the infantry automatic rifle (IAR) which will replace the squad automatic weapon (SAW), will significantly enhance the automatic rifleman's maneuverability and displacement speed, while providing the ability to suppress or destroy targets of most immediate concern to the fire team. By fully recognizing the trade-off between weight, protection, fatigue, and movement restriction, the Marine Corps is providing Marines the latest in personal protective equipment.

In the decentralized and dispersed operational environment, the tactical hand held radio family of systems consolidates and exceeds legacy capabilities, lightens the combat load of individual Marines and small units, and provides

line-of-sight radios into every tactical vehicle. Coupled with the fielding of the AN/PRC-117F which is capable of operating in the very high frequency (VHF) and ultra-high frequency (UHF) spectrums, and the AN/PRC-150(C) which operates in the high frequency (HF) spectrum, this family of systems reduces the Marine communications footprint by covering previous communications spectra with fewer radios. Additionally, the AN/PRC-117(F) and AN/PRC-150(C) adds significant data capabilities within those spectra. This increased capability enhances the distribution of command and control across the battlefield in general and at lower echelons in particular.

The Marine Corps will field a ground combat and tactical vehicle portfolio that will be based on a balance of performance, protection, payload, and transportability. Our modernization efforts include procurement of a balanced blend of Expeditionary Fighting Vehicles (EFV) and Marine Personnel Carriers (MPC) to support expeditionary maneuver by enhancing Marine operating forces' tactical mobility through replacement of the 40-year old fleet of Assault Amphibious Vehicles (AAV). The Joint Light Tactical Vehicle (JLTV) will replace the aging High Mobility Multipurpose Wheeled Vehicle (HMMWV) and provide improved mobility and increased protection and payload. Reset of the Mine Resistant Ambush Protected (MRAP) vehicle and integration of select numbers into the operating forces, primarily for route reconnaissance and clearance (R2C) and explosive ordnance disposal (EOD), will round out our ground mobility strategy. MRAPS will also be placed in the prepositioning programs to support the EOD and R2C capabilities inherent in the MEBs. A large number of MRAPs will also be placed in long-term storage programs for future contingencies.

Modernization of land-based fire support will be achieved through a triad of systems. The Expeditionary Fire Support System (EFSS), the Lightweight 155mm Howitzer (LW155) and the High Mobility Artillery Rocket System (HIMARS) will expand the maneuver commander's fire support options. These systems will be capable of successfully engaging a spectrum of potential point and area targets.

EFSS will be the primary indirect fire support system for the vertical assault element of the ship-to-objective maneuver force. The LW155 provides significantly improved transportability and mobility without impacting range or accuracy. It provides fire support of unassisted projectiles to a range of 15 miles and assisted projectiles to 19 miles. Finally, HIMARS provides the long-range capability to accurately engage targets at ranges in excess of 40 miles.

Aviation Combat Element

The Aviation Combat Element (ACE) of the MAGTF makes the Marine Corps unique, in that our aviation exists to support our Marines on the ground. We are in the midst of an unprecedented modernization effort; within the next two

decades, with continued support, we will replace every single aircraft in the Marine Corps with a new model or new airframe that will enhance the capability of the MAGTF. We are focused on our aviation assets in the current fight, yet we are also looking to a complex modernization plan for the future force. By 2020, we will have:

- Transitioned more than 50 percent of our aviation squadrons to new aircraft;
- Added five more operational squadrons and almost 100 more aircraft to our inventory;
- Completed the fielding of the MV-22 Osprey tilt-rotor aircraft and the UH-1Y Venom utility helicopter;
- Updated our entire fleet of aerial refuelers to the KC-130J model;
- Fielded the AH-1Z Viper attack helicopter and the F-35B Lightning Joint Strike Fighter;
- Fielded an entirely new family of Unmanned Aircraft Systems (UAS); and
- Introduced a new model of the heavy-lift CH-53 cargo helicopter.

In combat and aboard ship, the tilt-rotor MV-22 Osprey has proven to be a revolutionary machine. This aircraft has changed aviation tactics as well as ground tactics, for the Osprey now allows our ground commanders unprecedented speed, range, surprise, and flexibility in the transport of Marines on the battlefield. At our current build rate of thirty Osprey aircraft per year, we are replacing our CH-46E medium-lift helicopter squadrons at a rate of two squadrons per year. This is good news as, on average, our Vietnam-era CH-46E helicopters are more than forty years old.

The F-35B Lightning II Joint Strike Fighter will likewise revolutionize tactical air support of our ground combat forces. We have not purchased a fixed-wing tactical aircraft in eleven years, investing instead in the next-generation capabilities of the F-35B short takeoff/vertical landing (STOVL) Marine Corps variant of the Joint Strike Fighter. This short takeoff and vertical landing ground attack, electronic warfare, and fighter jet will eventually replace our inventory of AV-8 Harriers, F/A-18 Hornets, and EA-6B Prowlers. The Joint Strike Fighter will be able to operate under the same austere conditions as the Harrier; carry more ordnance and provide longer on-station times than the Hornet; and conduct electronic warfare more effectively than does the Prowler.

Logistics Combat Element

The Logistic Combat Element (LCE) of the MAGTF also requires modernization and reset of several key systems to provide expeditionary logistics to Marine combat and maneuver units. Ground tactical vehicle mobility will be enhanced

through modernization of the Logistics Vehicle System Replacement (LVSR), and reset of the Medium Tactical Vehicle Replacement (MTVR) – both provide the tactical distribution required to support the GCE and ACE with bulk fuel, water, ammunition, and cargo. The LVSR will rapidly distribute all classes of supply, while including a self-loading/unloading capability to reduce dependence on external material handling equipment. The MTVR is fully fielded and has proven its worth in both Iraq and Afghanistan. The MTVR fleet that has been operational in these two theaters will require significant reset efforts in order to ensure that it meets its service life expectancy.

Tactical distribution of supplies and logistics support is more than just transportation. It also requires an effective and efficient distribution and tracking system. Global Combat Service Support - Marine Corps (GCSS-MC) is a portfolio of information technology systems that will support logistics command and control, joint logistics interoperability, and secure access to and visibility of logistics data. It will align our logistics efforts with real-world challenges, where speed and information have replaced mass and footprint as the foremost attributes of combat operations.

With Logistics Modernization (LogMod), we continue the ongoing, multi-year effort to improve the people, processes, and technologies supporting MAGTF operations. An example of this is C2 for logistics. We have taken steps to ensure the resources (personnel, supplies, and equipment), processes, and communication architectures are in place to generate, collect, and distribute data across multiple layers of command with different requirements for information. The data from across the MAGTF will be enhanced by Marine Corps Autonomic Logistics (AL) that will monitor, collect, record, process, store, report, display, and archive platform mission-critical data elements. This performance data will be analyzed to provide information on fuel, ammunition, mobile loads, and system health status for current Marine Corps ground tactical equipment. Marine Corps logistics is actively pursuing Sense and Respond Logistics (S&RL) to enhance equipment readiness by advanced, real-time information technology that is flexible, robust, and scalable.

Command Element

The Command Element (CE) provides the command and control, intelligence, surveillance, and reconnaissance for the MAGTF. These systems of systems will require reset efforts to include refresh and hardware upgrades for systems such as the tactical combat operations systems

and the combat operations center equipment suite.

Modernization efforts will bring the Common Aviation Command and Control System (CAC2S) to full operational capability. CAC2S will eliminate current dissimilar systems and provide the MAGTF with the necessary hardware, software, and facilities to effectively command, control, and coordinate air operations while integrating with naval, joint, and/or combined command and control units. Also, the Joint Tactical Common Operational Picture (COP) workstation (JTCW) will reach IOC in FY 2010. It is expected to provide the warfighter with a framework for enhanced systems interoperability and commonality between MAGTF command, control, communications, computers, intelligence, surveillance, and reconnaissance systems. JTCW is the primary point of entry for the COP, enabling users to view map data, view and update track data, develop and distribute overlays, exchange general message traffic, plan and distribute route information, and conduct general command and control planning.

The Marine Corps Intelligence, Surveillance, & Reconnaissance Enterprise (MCISR-E) will modernize ISR capabilities by expanding the inherent ISR capacity of units at all echelons across the force. Simultaneously, it will provide better integration of intelligence information to address complex collection environments through a flexible organizational construct.

Other Modernization Efforts

Training. The goal is to ensure that all elements of the MAGTF are properly trained on these systems. Also the goal is to ensure effectiveness on the tactics, techniques, and procedures necessary to attain mission success which will require modernization and transformation of our ranges and training systems. Marine Corps live training ranges will be updated with a dynamic training system capable of real-time and post-mission battle tracking, data collection and the deliverance of value-added after action review. This end state is that such a system will link Marine Corps live training to the tenets of training transformation–joint national training capability (T2-JNTC) and joint assessment and evaluation capability. Instrumentation also allows service and joint virtual and constructive forces to interact with Marine Corps live training forces from distributed locations.

Specific to unit training, Infantry Immersive Trainers (IIT) are small-unit training ranges consisting of urban structures finished and decorated to replicate geo-specific locations. Individual feedback is enhanced by integrating and pairing ranges with direct fire training systems; virtual

simulation capabilities; and video instrumentation for after-action review. The end state will be the ability to create a small unit training range on par with modern crew simulators. IITs provide a small-unit decision and rehearsal training range for squad and fire team capstone training and evaluation in support of the pre-deployment training program.

Regionalization. As our Marines face an increasingly complex security environment, the requirement for greater understanding of the regions in which they will be operating will grow. To meet this challenge, each MEF will focus on increasing the regional awareness of their personnel through training programs that increase the language skills and cultural knowledge of the operating forces. The regional focus areas for each MEF are established in the MCSCP and are intended to frame these efforts to increase regional understanding. The MCSCP has further directed that analysis be conducted to link the regional focus areas of each MEF to manpower policies and force sourcing methodologies that permit the assignment of personnel with specific regional experience to the operating forces while facilitating the recurrent deployment of the same units to the same regions to support operations and steady state engagement requirements. As these analysis efforts are completed, they will be presented to senior Marine Corps leadership for decision.

Seabasing and Shipbuilding. Seabasing provides our Nation with the ability to overcome diplomatic, geographic, and military impediments to access in areas of national interest. This capability has re-

emerged as a critical necessity for extending U.S. influence and power overseas. Fortunately, the United States possesses an asymmetric advantage in that endeavor: *seapower*. As described in the maritime strategy, our seapower advantage allows the United States to use the sea as maneuver space. Naval forces use this conceptual approach—*seabasing*—to overcome impediments to access. Seabasing is a naval capability that provides joint force commanders with the ability to conduct selected functions and tasks at sea without reliance on infrastructure ashore. It is a concept for employing a variety of platforms, versus a specific type of platform. The Navy, Marine Corps, and Coast Guard are a sea-based force that provides the combatant commanders with numerous employment options. Freed from reliance upon local ports and airfields, we continuously operate forward—and surge additional forces when necessary—to project influence and power ashore in a selectively discrete or overt manner.

Seabasing has wide applicability across the range of military operations—from *military engagement, security cooperation, and deterrence activities* to *crisis response and limited contingency operations*, to *major operations and campaigns*. The sea may be used as maneuver space by small, mission-tailored forces engaged in activities which contribute to conflict prevention, or by larger task-organized naval forces to gain theater access and enable the introduction of joint follow-on forces.

The ability to conduct at-sea transfer of people and materiel, for both ship-to-ship and ship-to-shore purposes, has emerged as a key enabler for deploying, employing, and sustaining joint forces from the sea. Building upon the foundation provided by amphibious ships, aircraft carriers, and military sealift ships, ongoing initiatives include the development of high-speed intra-theater connectors, enhanced connectors, maritime prepositioning capabilities that allow for assembly and projection of forces at and from the sea using both vertical and surface means, and integrated naval logistics. These initiatives will be employed in combination to enhance access by reducing the joint force's reliance on ports and airfields in the operational area.

A national seabasing capability requires an adequately-resourced amphibious shipbuilding plan. In 2009, the United States welcomed two new ships to the amphibious fleet: the USS *Makin Island* (LHD-8), which was commissioned on October 24, 2009; and the USS *New York* (LPD-21), which was commissioned on November 7, 2009. The inventory requirement to give the Nation an adequate seabasing capability is 38 amphibious warships. At least 11 of these should be aviation-capable large-deck amphibious assault class ships (LHA/LHD/LHA(R)) to accommodate the aviation combat element of a MEB.

The future prepositioning force should also consist of three squadrons, to act as the seabase nucleus, plus the necessary ship-to-ship and ship-to-shore connector capability to support elements of three MEBs. This type of inventory will fulfill the following: combatant commander's need for steady-state forward presence; strengthen our nation's relations with allied and partner na-

tions through peacetime engagement and training exercises; and ensure our nation is ready to respond with humanitarian assistance when disaster strikes anywhere around the globe. Also, in the event of major conflict, it will ensure we are able to deploy combat forces from the sea without having to rely on another nation's ports or airfields.

There is a misperception that the United States has not conducted an amphibious operation since Inchon in 1950. In reality, since the end of the Cold War our nation has conducted more than 100 amphibious operations. As our nation's military infrastructure overseas continues to decrease, and as diplomatic agreements and the international security environment grows increasingly more complex, we believe the demand for U.S. amphibious forces will only increase. In short, we think nations will continue to want our support, but not our footprint. Thus, the presence of our naval forces around the world will provide the framework that will allow our nation to pursue elements of power other than military. This includes using diplomatic, informational, and economic efforts — to promote global stability.

Posture. The Marine Corps is also realigning the force lay down of III Marine Expeditionary Force (MEF) in the Pacific to provide a long-term, enduring posture to meet both traditional and emerging operational challenges in the region. This realignment is complex and expensive, and represents the largest peacetime relocation of forces in Marine Corps history. This supports agreements between the United States and Japan through a formal dialogue known as the Defense Policy Review Initiative. These agreements strengthen the U.S.-Japan alliance for the changing strategic environment.

Key to these agreements and ongoing dialogue is the long-term basing of U.S. forces on Japan, reduction of forces on Okinawa, and the establishment of a new Marine base on Guam. The combination of bases in Guam; Okinawa and Iwakuni, Japan; and Hawaii will provide forward locations for Marine forces to meet the challenges of long-standing threats to regional security and stability. Included with this is the emerging threats of piracy and terrorism, humanitarian assistance and disaster relief, and partnering commitments with allies and friendly nations.

Guam is the western-most U.S. territory in the Pacific. Marine units will be able to deploy to and from Guam without the host-nation restrictions of other countries. Marine units can host bilateral and multilateral training on or near Guam, creating a convenient location for allies and friendly nations to train on Marine Corps facilities on U.S. soil. Finally, Marine families can move to Guam expecting a familiar and supportive community. Marine Corps Pacific realignments represent a multi-decade investment to ensure Marine forces in the Pacific are given the resources required to maintain core competencies and remain postured optimally to meet combatant commander requirements.

All these efforts at reset and modernization will ensure the Marine Corps is properly postured for the future uncertainties of

Marine Corps Vision and Strategy 2025

Vision

The Marine Corps of 2025 will fight and win our Nation's battles with multi-capable Marine Air Ground Task Forces, either from the sea or in sustained operations ashore. Our unique role as the Nation's force in readiness, along with our values, enduring ethos, and core competencies, will ensure that we remain responsive to combatant commanders. In an uncertain and complex world, and against irregular and hybrid as well as traditional threats, we will continue to excel as the Nation's expeditionary "force-of-choice."

Strategy

To achieve this vision, the Marine Corps will be:

Organized to execute operations with MAGTFs that are mission tailored and operate as part of a naval and joint team.

Optimized to conduct naval expeditionary operations while retaining the institutional agility, battlefield flexibility and initiative to meet constantly changing conditions of crisis and combat.

Modernized with equipment and logistics that expand expeditionary capability and preserve our ability to operate from the sea.

Postured to prevent or respond to crises with forward positioned MAGTFs — both afloat and ashore — that are engaged and ready to act decisively in response to combatant commanders' requirements.

our operating environment. The concepts development process used to frame this operating environment is also vitally important and provides the construct in which we develop programs and allocate resources. The synthesis of these concepts that we use to guide program development is a never ending pursuit. The Marine Corps culture and organization is well suited for the continually changing security environment and this concept development.

Concepts

The United States relies upon its maritime forces — the Navy, Marine Corps, and Coast Guard — to be responsive and vigilant and to implement national policy without the benefit of precise knowledge of what the immediate or long-term future holds. We know that conflicts will erupt within the littorals and across the global commons. As a result, the sea services will play a significant role in engagement to prevent crises as well as to respond quickly and

effectively when crises do emerge.

The Marine Corps will continue to foster a culture of warrior-scholars who embrace critical thinking and adaptability to dynamically changing asymmetric threats. The following topics detail the importance of thought and innovation to Marine Corps culture and describes the family of service concepts that guide Marine Corps programs, doctrine, and policy development.

Key Marine Corps Concepts

Two key documents provide the framework for how the Marine Corps will operate and meet the challenges of the strategic environment. First, *A Cooperative Strategy for 21st Century Seapower*, published in October 2007, articulates U.S. naval and maritime strategy. It explains the relationship between the Navy, Marine Corps, and Coast Guard and addresses the complex demands of the evolving international security environment. First, this strategy stresses an approach that integrates seapower with other elements of national power, as well as those of our friends and allies. It describes how seapower will be applied around the world to protect our way of life, as we join with like-minded nations to protect and sustain sea lanes of communication. It also includes the global, inter-connected system through which we prosper. Second, and serving as our principal strategic planning document, the Marine Corps' *Vision and Strategy 2025* identifies our core competencies and objectives. It reflects our legislated roles, functions, and composition. It also illustrates our utility and value within the joint warfighting community, and is derived from strategic guidance at the national and departmental level,

Along with these publications, *The Long War: Send in the Marines* provides the bridge between vision and strategy and the service-specific concepts and capabilities envisioned in the 2007 edition of *Marine Corps Operating Concepts for a Changing Security Environment*. Through the use of these documents as guides to best position the Marine Corps for future success, the Corps has sought to expand awareness of and institutionalize capabilities against future irregular threats and complex environments. The result is a framework of supporting concept documents that will prove valuable in helping to ensure our Corps remains ready, relevant, and institutionally excellent.

Marine Corps Operating Concepts for a Changing Security Environment. As a result of the work on the above documents and on the Quadrennial Roles and Missions Review Report, the Marine Corps has sought to expand its already-significant contribution to national security objectives. Thus, to accomplish this task, the *Marine Corps Operating Concepts for a Changing Security Environment* is being revised. It will provide the intellectual foundation for improving capabilities and capacities to overcome access challenges and conduct engagement, response, and power projection operations. This emerging concept addresses the following topics:

Enhanced MAGTF Operations (EMO). EMO recognizes the inherent agil-

ity and versatility of the MAGTF to conduct expeditionary operations and improves upon it to increase operational utility and proficiency. This concept envisions more robust capabilities for dealing with the threats and opportunities of the modern hybrid battlefield. EMO espouses the simultaneous employment of multiple operational maneuver elements, across an extended battle-space, with the agility to conduct various missions either concurrently or sequentially. MAGTFs will have an enhanced capability to project fluid combined-arms formations. These maneuver formations will be capable of conducting multiple simultaneous, and dissimilar missions at increasingly lower echelons outside the range of mutual support. Units will require increased mobility to rapidly reinforce, withdraw or concentrate forces and, improved enablers that network, protect and sustain those forces.

Engagement: Combat will always remain the essential military capability. Future joint forces must be able to participate in security, engagement, and relief and reconstruction activities. This involves responding to access challenges by strengthening alliances and partnerships through security cooperation activities. These activities include providing support for training, advising, and equipping partner security forces to counter insurgencies, weapons proliferation, and irregular threats. The Marine Corps seeks to blend existing general-purpose forces with new and enhanced specialized engagement-enabling capabilities to provide an expanded array of means for engagement activities. Enhanced engagement capabilities will be established within both the operating forces and supporting establishments. These initiatives will permit the Corps to provide combatant commanders with additional options to satisfy their regional security force assistance requirements.

Crisis Response: Historically, naval forces are the first on the scene, first in the fight, last to depart, and foremost in defense of national interests around the world. Wherever crises occur, naval forces can bring unequivocal, timely power to bear. For crisis response, the combination of requirements across the range of military operations calls for adaptive and complementary naval capabilities, forward deployed and sea based, and with the ability to anticipate action and to react immediately. Task organized Navy-Marine Corps forces are uniquely structured and trained to execute crisis response operations in the 21st Century. Indeed, by improving its crisis-response capabilities, the Marine Corps will expand its contribution protecting U.S. personnel and pursuing U.S. national interests abroad. Further, it will do so while

maintaining balance with Marine Corps contributions to the homeland defense/civil support and major combat operations core missions.

Power Projection: The United States will need to conduct and sustain combat operations from the sea and extended operations ashore. Not only does positioning a potent combat force offshore act as an important deterrent, the capabilities and capacities for power projection are applicable across the range of military operations. Anti-access strategies and technologies are increasingly sophisticated, and precision weapons are becoming widely available. The Marine Corps seeks to develop capabilities with its naval partners to counter these aspects of the security environment; ensure the joint force's ability to project power throughout the littorals; and secure access for joint and multi-national operations.

Supporting Concepts

The current operating environment has been fertile ground for innovation and forward-leaning analysis and conceptual development. Our supporting documents include:

Amphibious Operations in the 21st Century. This operating concept provides a framework for examining the purposes, methods, and means of bridging the interface between sea and land. In dismissing the notion that amphibious operations are

all forcible-entry operations, like the landing at Inchon during the Korean War, the document discusses our historical amphibious competence in humanitarian assistance and disaster response and how distributed amphibious actions throughout the global littorals remain relevant in today's operational environment. It identifies current gaps in amphibious capabilities and sets them against the geographic combatant commanders' demands for amphibious forces. Also, that such forces be postured forward for rapid response across the spectrum of engagement, crisis, and conflict.

Evolving the MAGTF for the 21st Century. This document explores ideas for refining the MAGTF, giving particular consideration to likely future operating environments, adversaries, tactics, and technologies. The concept is a logical evolution of the existing conceptual work on distributed operations, enhanced company operations, and enhanced

MAGTF operations. Its central idea is that the Marine Corps must explore revisions to organizations and equipment as well as select tactics, techniques, and procedures in order to meet the challenges of the 21st century. The concept recommends that this exploration begin at the rifle company level in order to provide an innovation baseline for a more comprehensive evolution throughout the MAGTF.

Seabasing for the Range of Military Operations. This concept amplifies the Joint Seabasing concept and describes the utility of a sea-based approach to conducting operations across the range of military operations. This is key, particularly in light of the diplomatic, military, and geographic challenges to access characteristic of the 21st century. Written much like an anthology, it corrects misunderstandings by capturing the intellectual underpinnings and evolution of the professional journal articles, formal concepts, wargames, doctrine, and strategies that have evolved our understanding of seabasing.

Concept for Unified Action through Civil-Military Integration. This concept paper clarifies the USMC desire to improve our knowledge on integrating the activities of governmental and nongovernmental entities with military operations. The conceptual goal is to achieve unity of effort — incorporating all instruments of national influence to achieve "combined actions" at every level of engagement. It provides the Marine Corps with a broad overview of the fundamental requirements and mindset for success in a multiagency/multinational environment. The concept examines several joint capabilities integration implications, including the creation of a MAGTF Unified Action Group (MUAG) that could function as the key integrator between civil-military organizations.

USMC Cyberspace Concept. This document highlights the Marine Corps' recognition that cyberspace is an increasingly important domain for all military operations. This concept describes the need to take full advantage of potential offensive opportunities in the cyberspace domain and to minimize the asymmetric, potential vulnerabilities created by our reliance on networked systems and communications. The Marine Corps will take the necessary steps to develop a comprehensive understanding and approach to cyberspace operations that fully integrates all aspects of computer network operations, information assurance and network operations under a single command or proponent.

Emerging Concepts

Strategic Communications. In responding to the challenges in the cyberspace domain, the U.S. government and the Department of Defense continue to grapple with all aspects of information-related operations. This includes cyberspace, strategic communications, and information operations to help provide a baseline in the midst of the ongoing discussion. In the meantime a functional concept on strategic communications is nearing completion. It discusses what strategic communications means to the Marine Corps and operational MAGTFs.

Combating Weapons of Mass Destruction (CWMD). This document is in development and describes an approach to the Marine Corps role in supporting the eight mission areas of CWMD supporting the National Security Strategy (NSS) and National Military Strategy (NMS). The concept will delineate the Marine Corps' specific responsibilities within each mission area to provide commander's guidance to focus their training and capabilities as the mission requires.

The Marine Corps will continue to promote awareness, thought, and informed discussion on topics of fundamental importance to all Marines. This includes, the future of our Corps and the roles we will play in the future operational environment of persistent crisis and conflict. Our heritage and experience in both amphibious operations and in small wars provide both a legacy and a ready source of inspiration for continued efforts in this area. The remainder of the 2010 edition of *Concepts and Programs* describes the organization, research and development, acquisition programs, and current operations that are guided by these fundamental concepts and principles.

CHAPTER 2

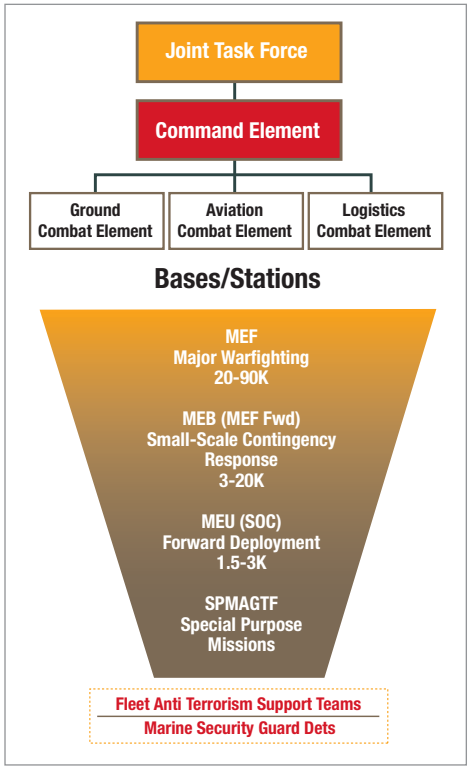
ORGANIZATION

INTRODUCTION

The Marine Corps is a task-organized, multi-capable organization. It is scalable and adaptive, providing the Nation with a capable force across the range of military operations. As the Marine Corps has grown during the last several years to 202,000 Marines, the organization of the Corps has changed and adapted to the current fight. During this growth, the Marine Corps has remained true to the direction provided by the 82nd Congress to provide "combined arms and supporting air components," through our expansion of both ground and aviation units. This chapter outlines the Marine Corps' combined arms structure and organization and highlights some of the unique capabilities that Marines bring to the fight.

Marine Air Ground Task Force (MAGTF)

The MAGTF is the Marine Corps' principal organization for conducting missions across the range of military operations. MAGTFs provide combatant commanders with scalable, versatile expeditionary forces able to respond to a broad range of crisis and conflict situations. They are balanced combined-arms force packages containing organic command, ground, aviation, and sustainment elements. A single commander leads and coordinates this combined-arms team from pre-deployment training through all phases of deployment and employment. MAGTF teams live and train together, further increasing their cohesion and fighting power.



MULTICAPABLE MAGTFS

MAGTFs will be decisive across the range of military operations with their capacity tailored to combatant commanders' requirements. They will be optimized to operate as an integrated system through air, land, and maritime domains, as well as the cyber and information environment. The naval character of MAGTFs enhances their global mobility, lethality, and staying power. Embarked aboard amphibious ships, multi-capable MAGTFs provide U.S. civilian and military leaders with the ability to do the following:

- Move forces into crisis areas without revealing their exact destinations or intentions
- Provide continuous presence in international waters
- Provide immediate national response in support of humanitarian and natural disaster relief operations
- Provide credible but non-provocative combat power over the horizon from a potential adversary for rapid employment as the initial response to a crisis

- Support diplomatic processes for peaceful crisis resolution before employing immediate-response combat forces
- Project measured degrees of combat power ashore — day or night and under adverse weather conditions, if required
- Introduce additional forces sequentially into a theater of operations
- Operate independent of established airfields, basing agreements, and over-flight rights
- Conduct combat operations ashore, using organic combat service support that is brought into the area of operations
- Enable the introduction of follow-on forces by securing staging areas ashore
- Operate in rural and urban environments, and during chemical, biological, radiological, and nuclear (CBRN) situations
- Withdraw rapidly at the conclusion of operations
- Place and commence execution of a mission within six to 48 hours of receiving a warning order
- Participate fully in the joint planning process and successfully integrate MAGTF operations with those of the joint force

MAGTF COMPOSITION

The Marine Corps task-organizes for combat in accordance with its statutory mandate to provide forces of combined arms, including aviation, by forming integrated combined-arms MAGTFs. As the name indicates, MAGTFs are task-organized and specifically tailored by mission, as well as for rapid deployment by air and/or sea. However, no matter what their mission or mode of deployment, MAGTFs comprise four deployable elements that are supported from Marine Corps bases and stations.

Command Element (CE): The CE contains the MAGTF headquarters and other units that provide intelligence, communications, and administrative support. As with all other elements of the MAGTF, the CE is scalable and task organized to provide the command, control, communications, computers, intelligence (C4I), and joint interoperability necessary for effective planning and execution of operations.

Ground Combat Element (GCE): The GCE is task organized to conduct ground operations to support the MAGTF mission. This element includes infantry, artillery, reconnaissance, armor, light armor, assault amphibian, engineer, and other forces as needed. The GCE can vary in size and composition. It can consist of a light, air-transportable battalion; a relatively heavy and mechanized unit that includes one or more Marine divisions; or another type of Marine Corps ground combat unit that meets the demands of a particular mission.

Aviation Combat Element (ACE): The ACE conducts offensive and defensive air operations and is task organized to perform those functions of Marine aviation required to support the MAGTF mission. This element is formed around

an aviation headquarters with appropriate air control agencies, combat, combat support, and combat service support units. The ACE can vary in size and composition from an aviation detachment of specifically required aircraft to one or more Marine air wings (MAW).

Logistics Combat Element (LCE): The LCE is task-organized to provide the full range of combat logistics functions and capabilities necessary to maintain the continued readiness and sustainability of the MAGTF as a whole. It is formed around a combat logistics headquarters and may vary in size and composition from a support detachment to one or more Marine Logistics Groups (MLG).

TYPES OF MAGTFS

Five types of MAGTFs can be task organized: the Marine Expeditionary Force; Marine Expeditionary Brigade; Marine Expeditionary Unit; Special Purpose MAGTF; and Security Cooperation MAGTF.

Marine Expeditionary Force (MEF): The MEF is the principal Marine Corps warfighting organization during larger crises or contingencies. It is normally commanded by a lieutenant general. A MEF can range in size from less than one division and air wing to multiple divisions and air wings, together with one or more logistics groups. MEFs are capable of amphibious operations and sustained operations ashore in any geographic environment. With appropriate augmentation, the MEF command element is capable of performing as a joint task force (JTF) headquarters.

MEFs are the primary "standing MAGTFs" in peacetime and wartime. In 2010, the Marine Corps is organized with three standing MEFs, each with a Marine division, air wing, and logistics group. The 1st Marine Expeditionary Force (I MEF) is located at bases in California and Arizona. The 2d Marine Expeditionary Force (II MEF) is located at bases in North Carolina and South Carolina. The 3d Marine Expeditionary Force (III MEF) is located at bases in Okinawa, mainland Japan, Hawaii and with future plans for Guam.

MEFs are the "reservoirs" from which all other Marine Corps capabilities emanate. Marine component headquarters, Marine Corps Forces Command (MARFORCOM) and Marine Corps Forces, Pacific (MARFORPAC) can form smaller MAGTFs from these MEFs. A MEF will normally deploy in echelon and will designate its lead element as the MEF (Forward).

Marine Expeditionary Brigade (MEB): The MEB is the mid-sized MAGTF (up to 20,000 Marines) and is normally commanded by a brigadier general. The MEB provides transitional capability between the forward-deployed Marine expeditionary unit (MEU) and the MEF, which is the Marine's principal warfighting force. A reinforced infantry regiment, a composite Marine aircraft group (MAG) and a combat logistics regiment (CLR) comprise a notional MEB. The command element of the MEB is embedded within the command element of its parent MEF;

the deputy MEF commander normally serves as the MEB commander.

MEBs provide supported combatant commanders with a scalable warfighting capability across the range of military operations. As an expeditionary force, it is capable of rapid deployment and employment via amphibious shipping (normally 17 amphibious ships), strategic air/sealift, geographic or maritime pre-positioning force assets, or any combination of these. With 30 days of accompanying supplies, MEBs can conduct amphibious assault and sustained operations ashore in any geographic environment. A MEB can operate independently or serve as the forward echelon of a MEF. With additional MEF command element augmentation, a MEB is also capable of acting as a JTF headquarters. Currently, all three MEFs source MEB command elements with personnel from the MEF staff, it subordinate commands, and through individual augmentation.

Marine Expeditionary Unit (MEU) and Marine Expeditionary Unit(Special Operations Capable), or MEU(SOC): Forward-deployed MEUs and/or MEU(SOC)s embarked aboard amphibious ready groups (ARG) operate continuously in the areas of responsibility of various unified combatant commanders. The MEU(SOC) is differentiated from the MEU by the addition of a specifically task organized element from Marine Forces Special Operations Command, is embarked and has been directed to conduct operations with a specific MEU, (MEU + MARSOF = MEU(SOC)). Overall these units provide the President and the unified combatant commanders a forward-deployed, flexible seabased

Geographic Combatant Commands

MAGTF, capable of conducting: amphibious operations, crisis response, limited contingency operations, to include enabling the introduction of follow on forces, and, designated special operations forces. MEUs are characterized by their sea-based forward presence, expeditionary nature, ability to plan and respond to crises, combined arms integration, and their interoperability with joint, combined and special operations forces.

The MEU is commanded by a colonel and deploys with 15 days of accompanying supplies. Prior to deployment, a MEU undergoes an intensive six-month training program, focusing on its mission essential task list (METL) and interoperability with MARSOF. The training culminates with a thorough evaluation and certification as "Operationally Ready to Deploy". The organic capabilities of the MEU and MEU(SOC) are:

- Amphibious Operations
  - Amphibious Assault
  - Amphibious Raid
    - Small Boat Raid (Specific To 31st MEU)
  - Maritime Interception Operations
  - Advance Force Operations
- Expeditionary Support to Other Operations / Crisis Response and Limited Contingency Operations
  - Noncombatant Evacuation Operations
  - Humanitarian Assistance
  - Stability Operations
  - Tactical Recovery of Aircraft and Personnel
  - Joint and Combined Operations
  - Aviation Operations from Expeditionary Sites
  - Theater Security and Cooperation Activities
  - Airfield and Port Seizures

The additional capabilities provided by the MEU(SOC) are:

- Special Operations
  - Direct Action
  - Special Reconnaissance
  - Foreign Internal Defense

Prior to deployment, the MEF commander exercises full command of his organic MEU. Command relationships of the MEUs once embarked will be as delineated by the geographic combatant commander (GCC). Per Joint Publication (JP) 3-02, *Amphibious Operations*, "While the full range of command relationship options as outlined in JP 1, *Doctrine for the Armed Forces of the United States*, are available, in amphibious operations, service component commanders normally retain operational control (OPCON) of their respective forces. If the joint force commander (JFC) organizes along functional lines, functional component commanders will normally exercise OPCON over all their parent Services' forces and tactical control (TACON) over other Services' forces attached or made available for tasking."

Special Purpose MAGTF (SPMAGTF): A SPMAGTF is task-organized to accomplish a specific mission, operation, or regionally focused exercise. As such, SPMAGTFs can be organized, trained, and equipped to conduct a wide variety of expeditionary operations ranging from crisis-response to training exercises and peacetime missions. They are designated as SPMAGTF with a mission, location, or exercise name for example, "SPMAGTF Afghanistan".

Security Cooperation MAGTF (SCMAGTF): The SCMAGTF is an emerging capability that will support combatant commander engagement requirements

with Marine forces specifically task-organized for security cooperation and civil military operations. The SCMAGTF will have capabilities, mobility, and sustainability commensurate with its requirements to provide training to less developed military forces. The SCMAGTF will be tasked with building partner nation security capacity and supporting partner nation security efforts in specific regional areas. The SCMAGTF will provide the combatant commander with a flexible expeditionary force employment option that further augments the traditional capabilities provided by the Marine Corps.

The nation's MAGTFs thus provide a continuum of capabilities to support naval, unified combatant commander, and national requirements. These MAGTFs are joined by other special-purpose forces and unique Marine forces to help the Corps deal with a full range of conventional, unconventional, and irregular/hybrid threats and assignments.

UNIQUE UNIFIED COMBATANT COMMANDER SUPPORT

A combatant commander or subordinate joint force commander might also require Marine forces that do not have all elements of a MAGTF. These forces are not given a specific MAGTF designation. Examples are installation security forces; engineer and medical support teams for humanitarian operations; deployments for training; law enforcement operations; and mobile training teams. In these cases, forces will be designated by the name of the senior headquarters having operational control, for example, 1st Combat Engineer Battalion (Reinforced), 1st Marine Division.

GLOBAL RESPONSE FORCES (GRFS)

Marine Corps global response forces (GRF) are standing contingency forces that can respond rapidly to emerging crises anywhere in the world. Commander, U.S. Marine Corps Forces Pacific and Commander, Marine Corps Forces Command maintain GRFs in continuous states of readiness, enabling U.S. Joint Forces Command to provide combatant commanders with the appropriate GRF as soon as the Secretary of Defense directs. Marine GRFs provide great versatility through employment from U.S. Navy amphibious ships or as fly-in echelons marrying up with equipment from maritime prepositioning forces. They can also conduct security and enabling functions as the lead element of a MEF.

MAGTF SUSTAINABILITY

A fundamental characteristic of a MAGTF is its ability to operate for extended periods as an expeditionary force, relying on internal resources for sustainment. All MAGTFs have inherent sustainability that allows them to be self-sufficient for planned periods. Larger MAGTFs have a deeper, broader, and more capable organic support capability. Different-sized MAGTFs deploy with sufficient accompanying supplies to support joint operations. MAGTFs can augment their organic sustainability by using external support from Navy organizations, host-nation support agreements, interservice support agreements, and in theater cross-service agreements.

MARITIME PREPOSITIONING FORCE (MPF)

The MPF is a strategic power-projection capability that combines the lift capacity, flexibility, and responsiveness of surface ships with the speed of strategic airlift. Strategically positioned around the globe, the maritime prepositioning ships (MPS) of the MPF provide geographic combatant commanders with persistent forward presence and rapid crisis response. The MPF is organized into three MPS squadrons (MPSRON) comprising 16 ships. MSPRON-1 is based in the Mediterranean; MPSRON-2 is based at Diego Garcia in the Indian Ocean; and MPSRON-3 is based in the Guam-Saipan area of the Pacific Ocean. These three interoperable MPSRONs are each designed to couple with a fly-in echelon to support the rapid closure of a MEB. The MPF can also support smaller or larger MAGTFs by employing as few as one or as many as 16 MPS. The MPS include government-owned ships and long-term leased ships operated under charters to Military Sealift Command (MSC).

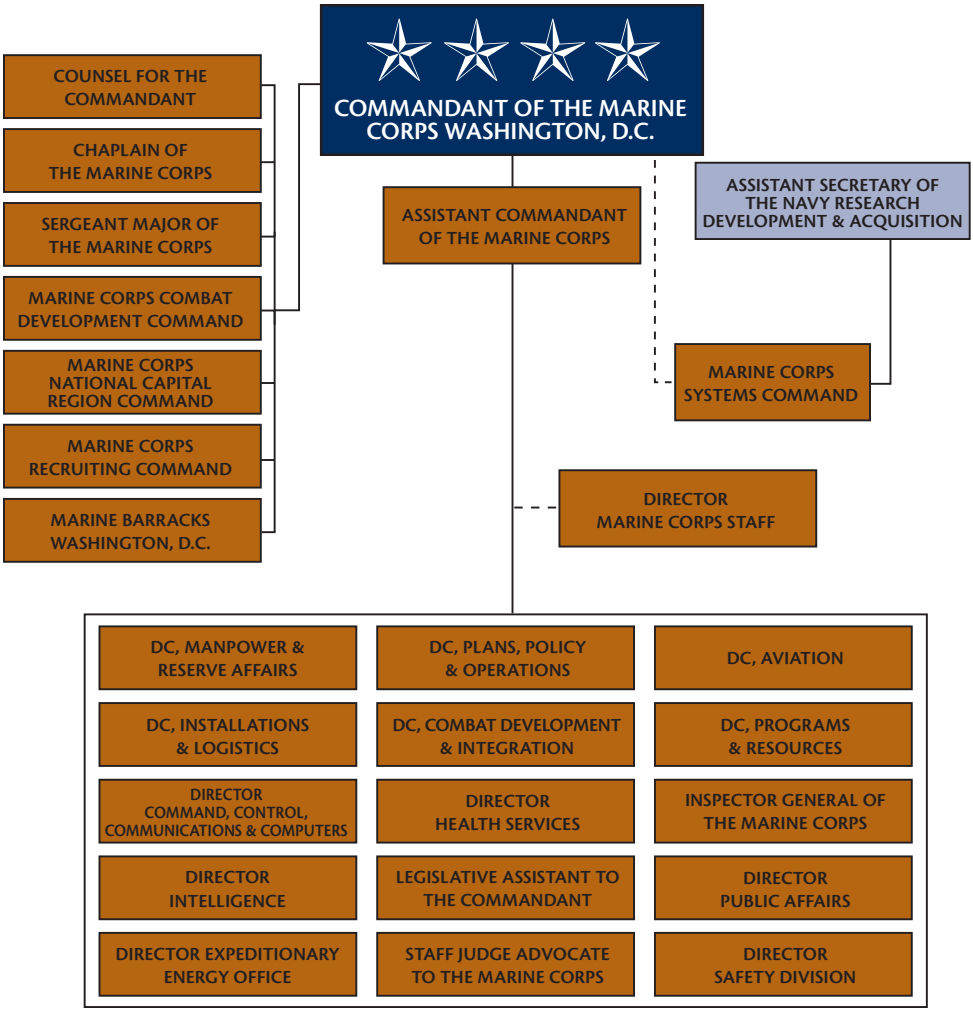
When needed, these ships move to a crisis region and offload either in port or offshore via in-stream offload. Offloaded equipment and supplies are then married up with Marines arriving at nearby airfields. The end result is a combat-ready MAGTF rapidly established ashore, using minimal in-country reception facilities. The MAGTF combat capability provided by MPF supports geographic combatant commander military operations that defeat adversaries and win wars, but has also supported regional crises that require rapid and effective humanitarian assistance and disaster relief.

MARINE CORPS PREPOSITIONING PROGRAM–NORWAY (MCPP-N)

MCPP-N enhances all geographic combatant commanders' operational responsiveness by providing mission-tailored, prepositioned war-reserve materiel that supports global Marine Corps expeditionary operations. MCPP-N prepositioned war-reserve materiel is stored in six caves and two airfields spread across Norway and is available for rapid preparation and marshalling at aerial/sea/rail ports of debarkation in support of deploying MAGTFs. Forward-prepositioned war-reserve materiel reduces reaction time and continental U.S. (CONUS)-based lift requirements.

Headquarters, U.S. Marine Corps

Headquarters, U.S. Marine Corps (HQMC) consists of the Commandant of the Marine Corps and those staff agencies that advise and assist him in discharging his responsibilities prescribed by law and higher authority. The Commandant is directly responsible to the Secretary of the Navy for the total performance of the Marine Corps. This includes the administration, discipline, internal organization, training, requirements, efficiency, and readiness of the service. Also, as the Commandant is a member of the Joint Chiefs of Staff, HQMC supports him in his interaction with the Joint Staff. The Commandant also is responsible for the operation of the Marine Corps material support system.

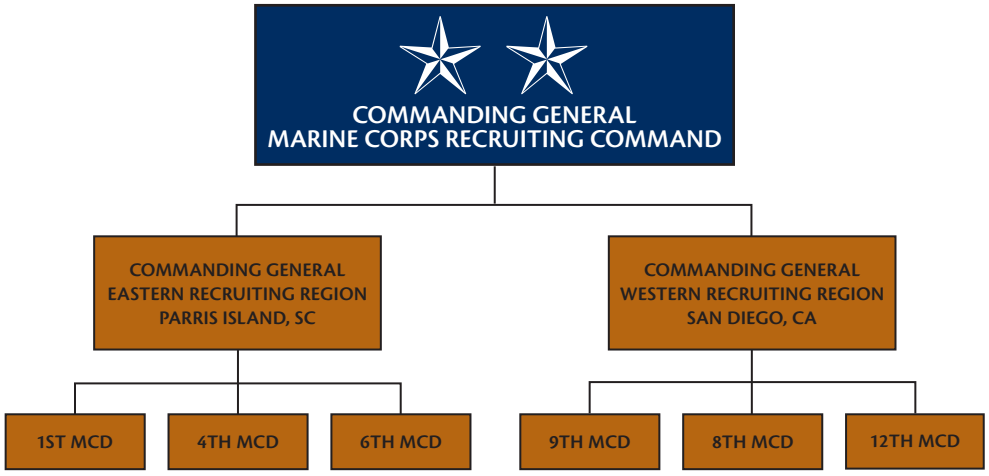


MANPOWER & RESERVE AFFAIRS (M&RA)

Located in Quantico, VA, M&RA is the largest department within HQMC. The mission of M&RA is to provide commanders with the right Marines, in a timely manner, utilizing a process that is fair, that maximizes the potential of the force and the individual Marine, and that incorporates effective quality of life programs and services for all who serve. To accomplish this mission, the Deputy Commandant, Manpower & Reserve Affairs (M&RA) is in charge of a far-reaching slate of manpower and personnel activities including: active and reserve assignments, promotions, and retention; senior leadership management; military awards; military and civilian personnel policies and plans; personnel and family readiness; casualty assistance; Marine Corps Community Services (MCCS); pay and personnel administration; wounded warrior non-medical care and support; and reserve personnel policies and plans.

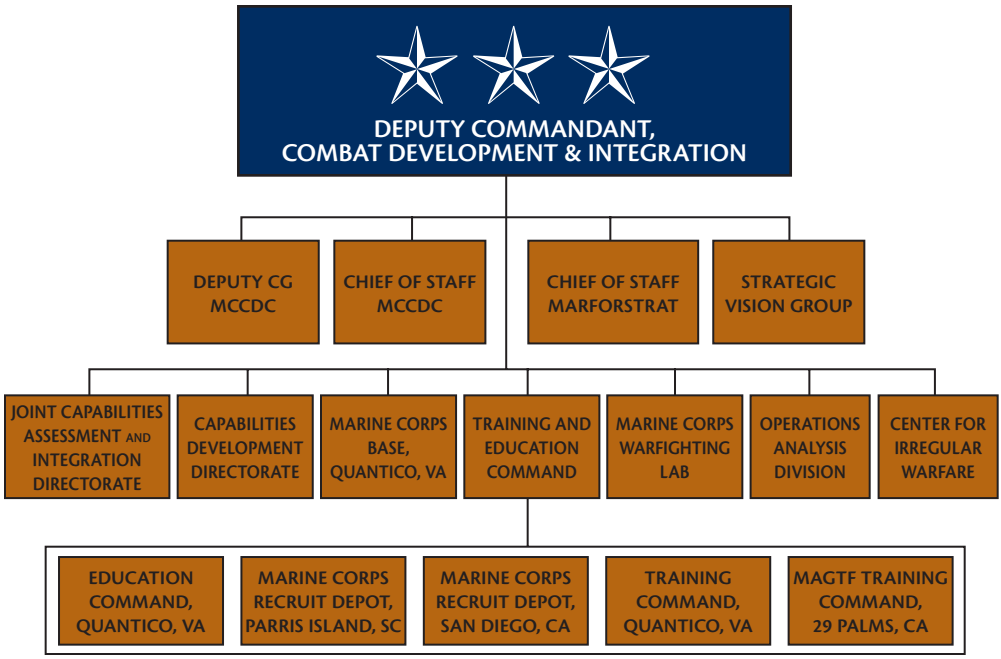
MARINE CORPS RECRUITING COMMAND (MCRC)

Headquartered in Quantico, VA, MCRC conducts operations to recruit qualified individuals for enlistment or commissioning into the United States Marine Corps and Marine Corps Reserve. The goal is to attain the assigned Total Force personnel requirements by component and category in accordance with the applicable fiscal year Marine Corps accessions strategy (Manpower Accessions Plan Memoranda), the Military Personnel Procurement Manual, and as directed by the Commandant of the Marine Corps. MCRC is comprised of two recruiting regions with three recruiting districts each. MCRC has approximately 3,000 Marine Corps recruiters operating out of 48 recruiting stations, 574 recruiting sub-stations, and 71 officer selection sites across the continental United States, Alaska, Hawaii, Puerto Rico, and Guam.



MARINE CORPS COMBAT DEVELOPMENT COMMAND (MCCDC)

Located in Quantico, VA, the Deputy Commandant, Combat Development and Integration is also the Commanding General, MCCDC. He is tasked to develop fully integrated Marine Corps warfighting capabilities; including doctrine, organization, training and education, materiel, leadership, personnel, and facilities (DOTMLPF), to enable the Marine Corps to field combat-ready forces. In addition to these duties, he is the Commander, Marine Forces Strategic Command and the Commanding General of Marine Corps installations in the National Capital Region.



Operating Forces

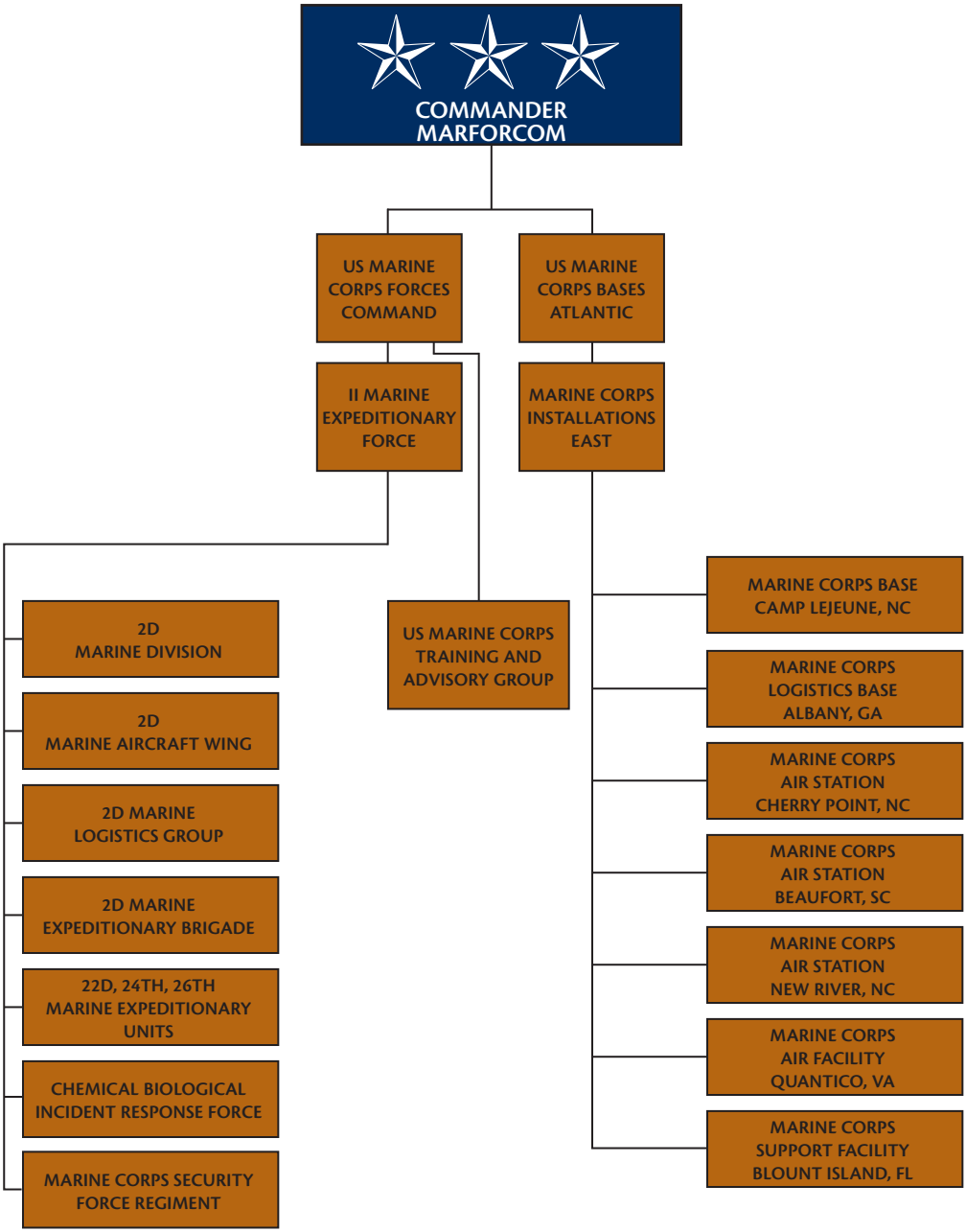
Operating forces — the heart of the Marine Corps — comprise the forward presence, crisis response, and combat power that the Corps makes available to U.S. unified combatant commanders. The Marine Corps has established three permanent combatant-level service components in support of unified commands with significant Marine forces assigned: U.S. Marine Corps Forces Command (MARFORCOM), U.S. Marine Corps Forces Pacific (MARFORPAC), and U.S. Marine Corps Forces, Special Operations Command (MARSOC). The Commander, MARFORCOM is assigned to the Commander, U.S. Joint Forces Command (JFCOM). He provides the 2d Marine Expeditionary Force (II MEF) and other unique capabilities to JFCOM. Likewise, the Commander, MARFORPAC is assigned to the Commander, U.S. Pacific Command. He provides I and III MEFs to PACOM. The Commander, MARSOC is assigned to the Commander, Special Operations Command (SOCOM). He provides assigned forces to SOCOM.

These assignments reflect the peacetime disposition of Marine Corps forces. Marine forces are apportioned to the remaining geographic combatant commands — the U.S. Southern Command (SOUTHCOM); U.S. Northern Command (NORTHCOM); U.S. European Command (EUCOM); U.S. Central Command (CENTCOM); U.S. Africa Command (AFRICOM); and U.S. Forces Korea (USFK) for contingency planning, and are provided to these commands when directed by the Secretary of Defense. The following sections highlight several of the unique organizations in the operating forces.

MARINE CORPS FORCES COMMAND (MARFORCOM)

Located in Norfolk, VA, MARFORCOM is the Marine component to JFCOM. The Commander, MARFORCOM coordinates Marine Corps support to JFCOM in the development of joint training, integration, readiness, joint concept development and experimentation efforts, and in executing global force management to synchronize the generation and provision of mission-ready, joint-capable Marine forces for present and future joint force requirements in order to support combatant commanders' global execution of the National Military Strategy. His peacetime combat forces and supporting establishment Marines and Sailors total approximately 55,000.

U.S. Marine Corps Forces Command, Marine Corps Bases Atlantic



U.S. Marine Corps Forces Command Units

II Marine Expeditionary Force

II Marine Expeditionary Force
Marine Corp Base, Camp Lejeune, NC

- II Marine Expeditionary Force Headquarters Group
  - 8th Communications Battalion
  - 2d Intelligence Battalion
  - 2d Radio Battalion
  - 2d Air and Naval Gunfire Liaison Company
- 2d Marine Expeditionary Brigade
- 22d Marine Expeditionary Unit
- 24th Marine Expeditionary Unit
- 26th Marine Expeditionary Unit
- Chemical Biological Incident Response Force
  Indian Head, MD
- Marine Corps Security Force Regiment
  Norfolk, VA

2d Marine Division
MCB Camp Lejeune, NC

- Headquarters Battalion
- 2d Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 2d Battalion, 9th Marines
- 6th Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 3d Battalion, 9th Marines
- 8th Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 1st Battalion, 9th Marines
- 10th Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 5th Battalion
- 2d Tank Battalion
- 2d Assault Amphibian Battalion
- 2d Light Armored Reconnaissance Battalion
- 2d Combat Engineer Battalion
- 2d Reconnaissance Battalion

2d Marine Air Wing
Marine Corps Air Station,
Cherry Point, NC

- Marine Wing Headquarters Squadron 2
- Marine Aircraft Group 14
  - Marine Aviation Logistics Squadron 14
  - Marine Tactical Electronic Warfare Squadron 1
  - Marine Tactical Electronic Warfare Squadron 2
  - Marine Tactical Electronic Warfare Squadron 3
  - Marine Tactical Electronic Warfare Squadron 4
  - Marine Attack Squadron 223
  - Marine Attack Squadron 231
  - Marine Attack Squadron 542
  - Marine Attack Training Squadron 203
  - Marine Aerial Refueler Transport Squadron 252
- Marine Aircraft Group 26
  MCAS New River, NC
  - Marine Aviation Logistics Squadron 26
  - Marine Medium Tiltrotor Squadron 261
  - Marine Medium Tiltrotor Squadron 264
  - Marine Medium Tiltrotor Squadron 266
  - Marine Heavy Helicopter Squadron 461
  - Marine Light Attack Helicopter Squadron 167

U.S. Marine Corps Forces Command Units

II Marine Expeditionary Force (cont.)

Marine Light Attack Helicopter Squadron 467
MCAS Cherry Point, NC

Marine Medium Tiltrotor Training Squadron 204

Marine Aircraft Group 29
MCAS New River, NC

- Marine Aviation Logistics Squadron 29
- Marine Medium Tiltrotor Squadron 162
- Marine Medium Tiltrotor Squadron 263
- Marine Medium Tiltrotor Squadron 365
- Marine Heavy Helicopter Squadron 464
- Marine Light Attack Helicopter Squadron 269
- Marine Light Attack Helicopter Squadron 567
  Activation planned for FY 2011
- Marine Heavy Helicopter Squadron 366
  MCAS Cherry Point, NC
- Marine Heavy Helicopter Training Squadron 302

Marine Aircraft Group 31
MCAS Beaufort, SC

- Marine Aviation Logistics Squadron 31
- Marine Fighter Attack Squadron 115
- Marine Fighter Attack Squadron 122
- Marine Fighter Attack Squadron 251
- Marine Fighter Attack Squadron 312
- Marine All Weather Fighter Attack Squadron 224
- Marine All Weather Fighter Attack Squadron 533
- Marine Fight Attack Training Squadron 501
  Eglin Air Force Base, FL

Marine Air Control Group 28

- Marine Tactical Air Control Squadron 28
- Marine Air Control Squadron 2
- Marine Aircraft Support Squadron 1
- Marine Wing Communications Squadron 28
- 2d Low Altitude Air Defense Battalion
- Marine Unmanned Aerial Vehicle Squadron 2

Marine Wing Support Group 27

- Marine Wing Support Squadron 271
  Bogue Airfield, NC
- Marine Wing Support Squadron 272
  MCAS New River, NC
- Marine Wing Support Squadron 273
  MCAS Beaufort, SC
- Marine Wing Support Squadron 274

2d Marine Logistics Group
MCB Camp Lejeune, NC

Combat Logistics Regiment 2

- Combat Logistics Battalion 2
- Combat Logistics Battalion 6
- Combat Logistics Battalion 8

Combat Logistics Regiment 25

- 2d Maintenance Battalion
- 2d Medical Battalion
- 2d Supply Battalion
- Combat Logistics Company 21
  MCAS Cherry Point, NC
- Combat Logistics Company 23
  MCAS Beaufort, SC

Combat Logistics Regiment 27

- Combat Logistics Battalion 22
- Combat Logistics Battalion 24
- Combat Logistics Battalion 26

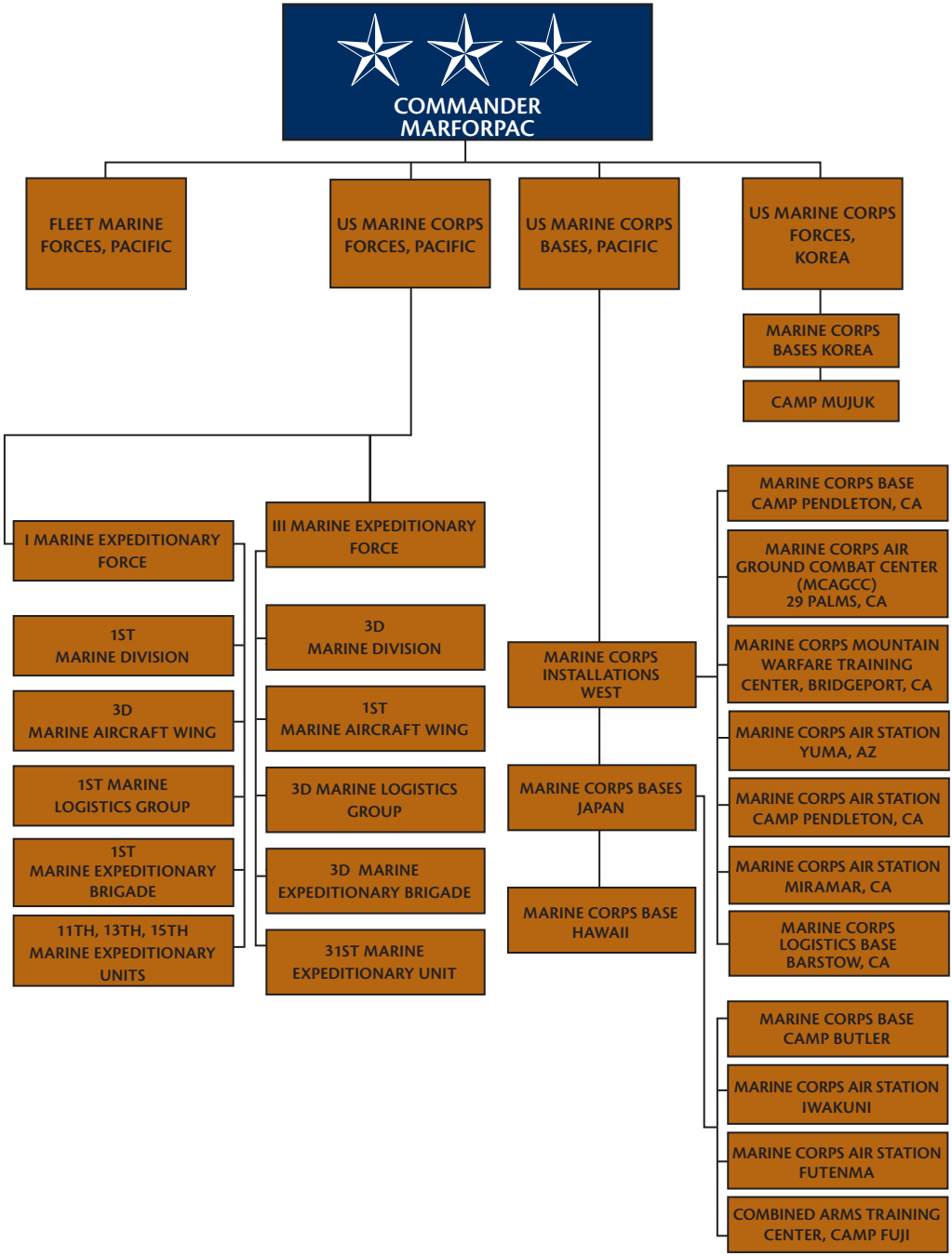
8th Engineer Support Battalion

2d Dental Battalion

MARINE CORPS FORCES PACIFIC (MARFORPAC)

Located at Camp Smith, HI, MARFORPAC is the Marine component to PACOM. The Commander, MARFORPAC commands all Marine Corps forces assigned to PACOM, accomplishes assigned operational missions, advises the PACOM commander on the proper employment, capabilities and support of Marine Corps forces and provides combat ready forces to other commands, as required. He also serves as Commanding General, Fleet Marine Forces, Pacific and Commander for U.S. Marine Corps Bases, Pacific. MARFORPAC is the largest field command in the Marine Corps. His peacetime combat forces and supporting installation Marines and Sailors total approximately 74,000.

U.S. Marine Corps Forces Pacific



U.S. Marine Corps Forces Pacific Units

I Marine Expeditionary Force

I Marine Expeditionary Force
Marine Corp Base,
Camp Pendleton, CA

- I Marine Expeditionary Force Headquarters Group
  - 9th Communications Battalion
  - 1st Intelligence Battalion
  - 1st Radio Battalion
  - 1st Air and Naval Gunfire Liaison Company
- 1st Marine Expeditionary Brigade
- 11th Marine Expeditionary Unit
- 13th Marine Expeditionary Unit
- 15th Marine Expeditionary Unit

1st Marine Division
MCB Camp Pendleton, CA

- Headquarters Battalion
- 1st Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 1st Battalion, 4th Marines
- 5th Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 2d Battalion, 4th Marines
- 7th Marine Regiment
  Marine Corps Air Ground Combat Center,
  29 Palms, CA
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
  - 3d Battalion, 4th Marines
- 11th Marine Regiment
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
    MCAGCC, 29 Palms, CA
  - 5th Battalion (HIMARS)
- 1st Tank Battalion
  MCAGCC, 29 Palms, CA
- 3d Assault Amphibian Battalion
  Company D
  MCAGCC, 29 Palms, CA
- 1st Light Armored Reconnaissance Battalion
- 3d Light Armored Reconnaissance Battalion
  MCAGCC, 29 Palms, CA
- 1st Combat Engineer Battalion
- 3d Combat Engineer Battalion
  MCAGCC, 29 Palms, CA
- 1st Reconnaissance Battalion

3d Marine Air Wing
Marine Corps Air Station,
Miramar, CA

- Marine Wing Headquarters Squadron 3
- Marine Aircraft Group 11
  - Marine Aviation Logistics Squadron 11
  - Marine Fighter Attack Squadron 232
  - Marine Fighter Attack Squadron 314
  - Marine Fighter Attack Squadron 323
  - Marine All Weather Fighter Attack Squadron 121
  - Marine All Weather Fighter Attack Squadron 225
  - Marine Aerial Refueler Transport Squadron 352
  - Marine Fight Attack Training Squadron 101
- Marine Aircraft Group 13
  MCAS Yuma, AZ
  - Marine Aviation Logistics Squadron 13
  - Marine Attack Squadron 211
  - Marine Attack Squadron 214
  - Marine Attack Squadron 311
  - Marine Attack Squadron 513
  - Marine Fighter Attack Squadron 332
    Activation planned for FY 2011
- Marine Aircraft Group 16
  - Marine Aviation Logistics Squadron 16
  - Marine Medium Tiltrotor Squadron 161
  - Marine Medium Tiltrotor Squadron 561
    Activation planned for FY 2011

U.S. Marine Corps Forces Pacific Units

I Marine Expeditionary Force (cont.)

- Marine Medium Helicopter Squadron 163
- Marine Medium Helicopter Squadron 165
- Marine Medium Helicopter Squadron 166
- Marine Heavy Helicopter Squadron 361
- Marine Heavy Helicopter Squadron 462
- Marine Heavy Helicopter Squadron 465
- Marine Heavy Helicopter Squadron 466

Marine Aircraft Group 39
MCAS Camp Pendleton, CA

- Marine Aviation Logistics Squadron 39
- Marine Light Attack Helicopter Squadron 169
- Marine Light Attack Helicopter Squadron 267
- Marine Light Attack Helicopter Squadron 367
- Marine Light Attack Helicopter Squadron 369
- Marine Light Attack Helicopter Squadron 469
- Marine Light Attack Helicopter Training Squadron 303
- Marine Medium Helicopter Squadron 268
- Marine Medium Helicopter Squadron 364
- Marine Medium Helicopter Training Squadron 164

Marine Air Control Group 38

- Marine Tactical Air Control Squadron 38
- Marine Air Control Squadron 1
  MCAS Yuma, AZ
- Marine Aircraft Support Squadron 3
  MCAS Camp Pendleton, CA
- Marine Wing Communications Squadron 38
- 3d Low Altitude Air Defense Battalion
  MCAS Camp Pendleton, CA
- Marine Unmanned Aerial Vehicle Sqdn 1
  MCAGCC 29 Palms, CA
- Marine Unmanned Aerial Vehicle Sqdn 3
  MCAGCC 29 Palms, CA

Marine Wing Support Group 37

- Marine Wing Support Squadron 371
  MCAS Yuma, AZ
- Marine Wing Support Squadron 372
  MCAS Camp Pendleton, CA
- Marine Wing Support Squadron 373
- Marine Wing Support Squadron 374
  MCAGCC 29 Palms, CA

1st Marine Logistics Group
MCB Camp Pendleton, CA

Combat Logistics Regiment 1

- Combat Logistics Battalion 1
- Combat Logistics Battalion 5
- Combat Logistics Battalion 7
  MCAGCC 29 Palms, CA

Combat Logistics Regiment 15

- 1st Maintenance Battalion
- 1st Medical Battalion
- 1st Supply Battalion
- Combat Logistics Company 11
  MCAS Miramar, CA
- Combat Logistics Company 16
  MCAS Yuma, AZ

Combat Logistics Regiment 17

- Combat Logistics Battalion 11
- Combat Logistics Battalion 13
- Combat Logistics Battalion 15

7th Engineer Support Battalion

1st Dental Battalion

U.S. Marine Corps Forces Pacific Units

III Marine Expeditionary Force

III Marine Expeditionary Force
Marine Corp Bases, Okinawa, Japan

- III Marine Expeditionary Force Headquarters Group
  - 7th Communications Battalion
  - 3d Intelligence Battalion
  - 3d Radio Battalion
    - MCB Kaneohe Bay, HI
  - 5th Air and Naval Gunfire Liaison Company
- 3d Marine Expeditionary Brigade
- 31st Marine Expeditionary Unit

3d Marine Division
Marine Corps Bases, Okinawa, Japan

- Headquarters Battalion
- 3d Marine Regiment
  - MCB Kaneohe Bay, HI
  - 1st Battalion
  - 2d Battalion
  - 3d Battalion
- 4th Marine Regiment
  - Units sourced via Unit Deployment Program(UDP)
- 12th Marine Regiment
  - 1st Battalion
    - MCB Kaneohe Bay, HI
  - 3d Battalion
- 3d Combat Assault Battalion
- 3d Reconnaissance Battalion

1st Marine Air Wing
Marine Corps Bases, Okinawa, Japan

- Marine Wing Headquarters Squadron 1
- Marine Aircraft Group 12
  - MCAS Iwakuni, Japan
  - Marine Aviation Logistics Squadron 12
  - Marine All Weather Fighter Attack Squadron 242
- Marine Aircraft Group 24
  - MCAS Kaneohe Bay, HI
  - Marine Aviation Logistics Squadron 24
  - Marine Heavy Helicopter Squadron 362
  - Marine Heavy Helicopter Squadron 363
  - Marine Heavy Helicopter Squadron 463

Cadres in FY 2011

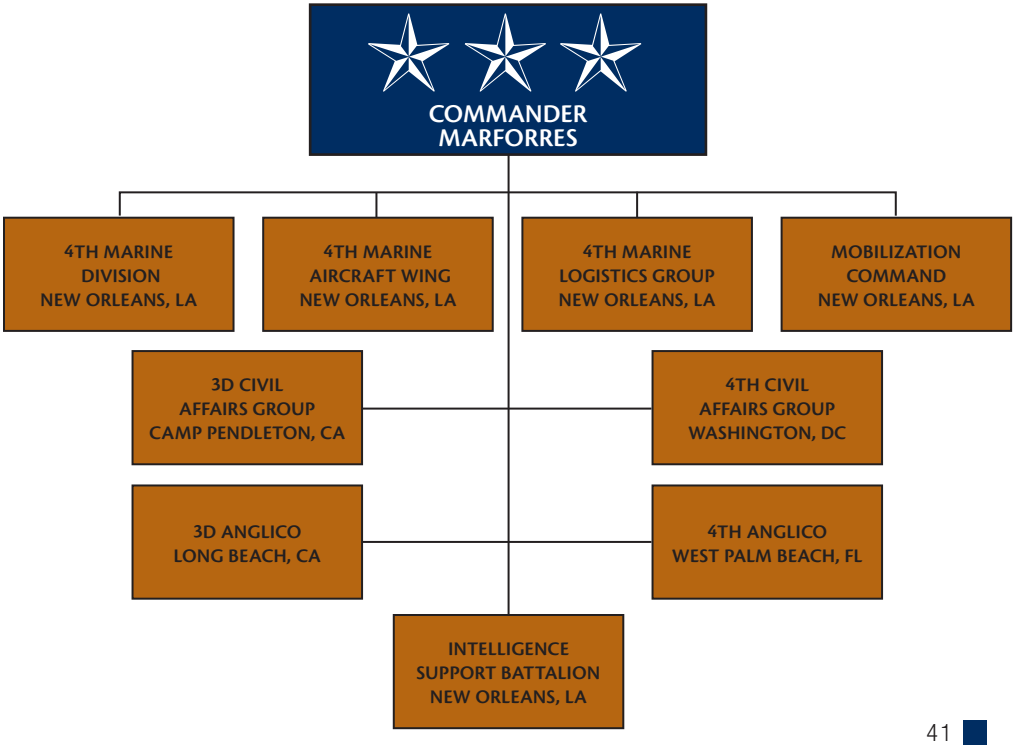
- Marine Aircraft Group 36
  - MCAS Futenma, Okinawa, Japan
  - Marine Aviation Logistics Squadron 36
  - Marine Medium Helicopter Squadron 262
  - Marine Medium Helicopter Squadron 265
  - Marine Aerial Refueler Transport Squadron 152
- Marine Air Control Group 18
  - MCAS Futenma, Okinawa, Japan
  - Marine Tactical Air Control Squadron 18
  - Marine Air Control Squadron 4
  - Marine Aircraft Support Squadron 2
  - Marine Wing Communications Squadron 18
- Marine Wing Support Group 17
  - Marine Wing Support Squadron 171
    - MCAS Iwakuni, Japan
  - Marine Wing Support Squadron 172

3d Marine Logistics Group
Marine Corps Bases, Okinawa, Japan

- Combat Logistics Regiment 3
  - Combat Logistics Battalion 3
    - MCB Kaneohe Bay, HI
  - Combat Logistics Battalion 4
  - Combat Logistics Company 33
    - MCB Camp Pendleton, CA
- Combat Logistics Regiment 35
  - 3d Maintenance Battalion
  - 3d Medical Battalion
  - 3d Supply Battalion
  - Combat Logistics Company 36
    - MCAS Iwakuni, Japan
- Combat Logistics Regiment 37
  - Combat Logistics Battalion 31
- 9th Engineer Support Battalion
- 3d Dental Battalion

MARINE CORPS FORCES RESERVES (MARFORRES)

Headquartered in New Orleans, LA, MARFORRES is responsible for providing trained units and qualified individuals for active duty service in times of war, national emergency, or in support of contingency operations. It also provides personnel and operational tempo relief for active component forces during times of peace. Marine Corps force expansion is made possible by activation of the Marine Corps Reserve, which, like the active component, consists of a combined-arms force with balanced ground, aviation, and logistics combat support units. This capability is managed through MARFORCOM in meeting his global force management responsibilities to JFCOM. Organized under the Commander, MARFORRES, units of this command are located at 184 training centers in 48 states, Puerto Rico, and the District of Columbia. During the past several years, the Marine Corps Reserve has been closely integrated with the active component under the Marine Corps' Total Force concept. The ethos for the Marine Corps Reserve is mobilization and combat readiness. This ensures the men and women of the Marine Corps Reserve stand ready, willing and able to answer the Nation's call at home and abroad at a moment's notice. CG, MARFORRES is also Commander, Marine Forces Northern Command (MARFORNORTH) and serves as the Marine component of NORTHCOM.



U.S. Marine Corps Forces Reserve Units

Intelligence Support Battalion	New Orleans, LA
3d Air and Naval Gunfire Liaison Company	Long Beach, CA
4th Air and Naval Gunfire Liaison Company	West Palm Beach, FL
3d Civil Affairs Group	MCB Camp Pendleton, CA
4th Civil Affairs Group	Washington, DC
4th Marine Division	**New Orleans, LA**
23d Marine Regiment	San Bruno, CA
1st Battalion	Houston, TX
2d Battalion	Pasadena, CA
3d Battalion	Belle Chasse, LA
24th Marine Regiment	Kansas City, MO
1st Battalion	Mount Clemens, MI
2d Battalion	Chicago, IL
3d Battalion	Bridgeton, MO
25th Marine Regiment	Ft. Devens, MA
1st Battalion	Ft. Devens, MA
2d Battalion	Garden City, NY
3d Battalion	Brook Park, OH
14th Marine Regiment	Fort Worth, TX
2d Battalion (HIMARS)	Grand Prairie, TX
3d Battalion	Philadelphia, PA
5th Battalion	Seal Beach, CA
Anti-Terrorism Battalion	Bessemer, AL
3rd Force Reconnaissance Company	Mobile, AL
4th Force Reconnaissance Company	Alameda, CA
4th Tank Battalion	San Diego, CA
4th Assault Amphibian Battalion	Tampa, FL
4th Light Armored Reconnaissance Battalion	MCB Camp Pendleton, CA
4th Combat Engineer Battalion	Baltimore, MD
4th Reconnaissance Battalion	San Antonio, TX
4th Marine Air Wing	**New Orleans, LA**
Marine Transport Squadron	
Detachment	Andrews Air Force Base, MD
Detachment	Joint Reserve Base New Orleans, LA
Marine Aircraft Group 41	JRB Fort Worth, TX
Detachment A	Edwards AFB, CA
Marine Aviation Logistics Squadron 41	JRB Forth Worth, TX
Detachment A	MCAS Miramar, CA
Marine Medium Helicopter Squadron 764	Edwards AFB, CA
Marine Fighter Attack Squadron 112	JRB Fort Worth, TX
Marine Aerial Refueler Transport Sqdn 234	JRB Fort Worth, TX
Marine Fighter Training Squadron 401	MCAS Yuma, AZ

U.S. Marine Corps Forces Reserve Units

Marine Aircraft Group 49	JRB Willow Grove, PA**
Detachment A	NAS Atlanta, GA
Detachment B	Stewart ANG Base, NY
Detachment C	JRB New Orleans, LA
Detachment D	NAS Norfolk, VA
Marine Aviation Logistics Squadron 49	Stewart ANG Base, NY
Marine Aerial Refueler Transport Sqdn 452	Stewart ANG Base, NY
Marine Medium Helicopter Squadron 774	NAS Norfolk, VA
Marine Heavy Helicopter Squadron 772	JRB Willow Grove, PA**
Marine Light Attack Helicopter Sqdn 773	NAS Atlanta, GA
Detachment A	JRB New Orleans, LA
Detachment B	Johnstown, PA**
Marine Air Control Group 48	Great Lakes, IL
Marine Tactical Air Control Squadron 48	Great Lakes, IL
Marine Air Control Squadron 23	Buckley AFB, CO
Marine Air Control Squadron 24	Virginia Beach, VA
Marine Aircraft Support Squadron 6	Westover Air Reserve Base, MA
Marine Wing Communications Sqdn 48	Great Lakes, IL
Marine Wing Support Group 47	Selfridge ANG Base, MI
Marine Wing Support Squadron 471	Minneapolis, MN
Detachment A	Johnstown, PA
Detachment B	Selfridge ANG Base, MI
Marine Wing Support Squadron 472	JRB Willow Grove, PA**
Detachment A	Wyoming, PA
Detachment B	Westover Air Reserve Base, MA
Marine Wing Support Squadron 473	MCAS Miramar, CA
Detachment A	Fresno, CA
Detachment B	JRB Fort Worth, TX

** Planned relocation to McGuire Air Force Base, NJ in FY 2011

4th Marine Logistics Group	New Orleans, LA
Forward East	MCB Camp Lejeune, NC
Forward West	MCB Camp Pendleton, CA
Headquarters and Service Battalion	Marietta, GA
4th Supply Battalion	Newport News, VA
6th Communications Battalion	Brooklyn, NY
4th Maintenance Battalion	Charlotte, NC
4th Landing Support Battalion	Fort Lewis, WA
4th Dental Battalion	Marietta, GA
4th Medical Battalion	San Diego, CA
6th Motor Transport Battalion	Red Bank, NJ
6th Engineer Support Battalion	Portland, OR

U.S. MARINE CORPS FORCES, SPECIAL OPERATIONS COMMAND (MARSOC)

Headquartered at Camp Lejeune, NC, MARSOC is the Marine Corps component of USSOCOM. As such, MARSOC trains, organizes, equips, and, when directed by the Commander USSOCOM, deploys task organized, scalable and responsive Marine Corps special operations forces (SOF) worldwide in support of combatant commanders and other agencies.

In October 2005, the Secretary of Defense directed the Marine Corps to form a service component of USSOCOM and begin providing forces to the commander of USSOCOM. Formally established 24 February 2006, MARSOC will ultimately grow to approximately 2,600 Marines, Sailors, and civilian employees. MARSOC includes three subordinate commands: the Marine Special Operations Regiment (MSOR), which consists of three Marine special operations battalions (1st MSOB at Camp Pendleton, CA, and 2d and 3d MSOB at Camp Lejeune, NC); the Marine Special Operations Support Group (MSOSG); and the Marine Special Operations School (MSOS).

A Marine Corps major general commands MARSOC with a supporting staff designed to be compatible in all functional areas within USSOCOM and Headquarters, U.S. Marine Corps. The MARSOC headquarters is responsible for identifying Marine special operations-unique requirements, developing Marine SOF tactics, techniques, procedures and doctrine; and executing assigned missions

in accordance with designated conditions and standards.

From August 2006 to early 2010, MARSOC conducted 89 operational overseas unit deployments, continuously deploying Marine special operations teams (MSOTs) and Marine special operations companies (MSOCs) in support of the geographic combatant commanders. Missions have included conducting combat operations in Afghanistan and training foreign SOF in Africa, Asia, South America, Central Asia, and the Middle East.

MARSOC Core Capabilities. MARSOC is tasked by SOCOM with providing Marines who are specially trained in the following primary SOF disciplines:

- Direct action (DA) — short-duration strikes and other small-scale offensive actions taken to seize, destroy, capture, recover, or inflict damage in denied areas.
- Special reconnaissance (SR) — actions conducted by SOF to obtain or verify by visual observation (or other collection methods), information concerning the capabilities, intentions and activities of an actual or potential enemy.
- Foreign internal defense (FID) — participation by civilian and military agen-

cies of a government in any of the programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency.
- Counterterrorism (CT) — offensive measures taken to prevent, deter and respond to terrorism.

MARSOC also provides support for the following:
- Unconventional warfare (UW) — a broad spectrum of military and paramilitary operations, normally of long duration, predominately conducted by indigenous or surrogate forces organized, trained, equipped, supported, and directed in varying degrees by an external source.
- Information operations (IO) — use of offensive and defensive information means to degrade, destroy and exploit an adversary's information-based process while protecting one's own.

MARSOC SUBORDINATE UNITS

Marine Special Operations Regiment (MSOR): MSOR consists of a headquarters company and three Marine special operations battalions (1st, 2d, and 3d). The Regiment provides tailored, military combat-skills training and advisor support for identified foreign forces, in order to enhance their tactical capabilities and to prepare the environment as directed by USSOCOM as well as the capability to form the nucleus of a joint special operations task force. Marines and Sailors of the MSOR train, advise, and assist host nation forces - including naval

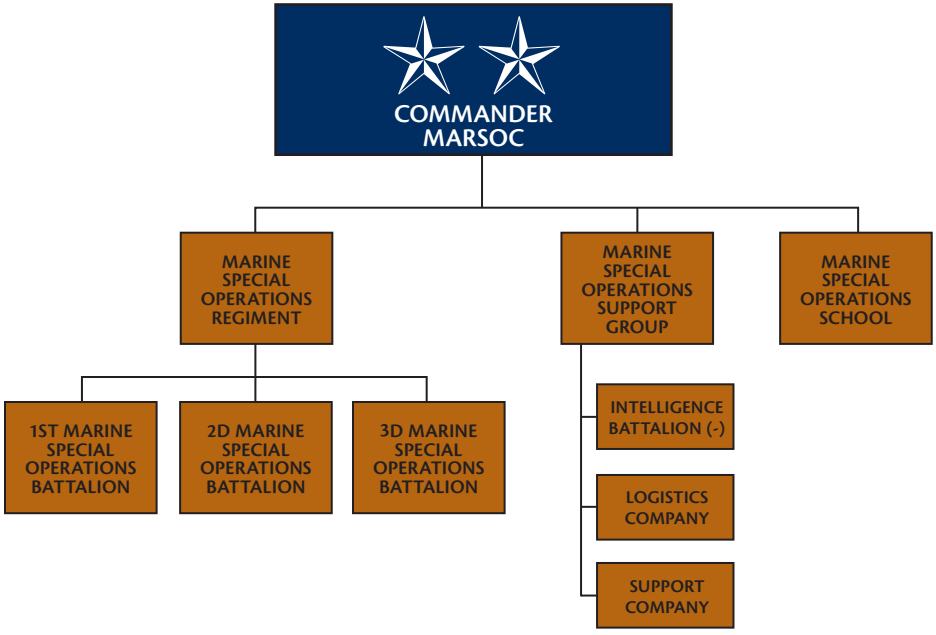
and maritime military and paramilitary forces - to enable them to support their governments' internal security and stability; to counter subversion; and to reduce the risk of violence from internal and external threats. MSOR deployments are coordinated by MARSOC through USSOCOM, in accordance with engagement priorities for overseas contingency operations.

Marine Special Operations Battalions (MSOB): The 1st, 2d, and 3d MSOBs are organized, trained, and equipped to deploy for worldwide missions. The battalions are commanded by a Marine lieutenant colonel and consist of four MSOCs, who when designated for deployment, are task organized with personnel uniquely skilled in special equipment support, intelligence, and fire-support. Each MSOC

is commanded by a Marine major and is capable of deploying task organized, expeditionary Marine SOF providing the above listed core capabilities in support of the geographic combatant commanders. MSOCs are also uniquely organized and tailored to conduct distributed operations in the littorals with counter-insurgency expertise and language and cultural capability. Each team within the company is designed and capable of limited split-team operations and trained to conduct FID, DA, and SR missions both unilaterally and with partnered nation forces.

Marine Special Operations Support Group (MSOSG): The MSOSG provides support capabilities for worldwide special operations missions as directed by the MARSOC commander. The MSOSG specifically provides all-source intelligence fusion, combined arms coordination, multi-purpose canine capability, special operations communications, and limited combat service support capability to MARSOC forces. The MSOSG deploys these capabilities in tailored operational support detachments, either independently or as part of a MSOC.

Marine Special Operations School (MSOS): MSOS screens, assesses, selects, and trains Marines and Sailors for special operations assignments in MARSOC; provides both initial and advanced individual special operations training; plans and executes the component exercise program; and serves as MARSOC's training and education proponent in support of MARSOC requirements.



MARINE CORPS FORCES, CYBER COMMAND (MARFORCYBER)

In response to the significance of the cyber domain to national security, the Secretary of Defense has directed the establishment of U.S. Cyber Command (CYBERCOM) as a sub-unified command under U.S. Strategic Command. The primary objective of CYBERCOM is to integrate the computer network operations capabilities of the services and agencies in support of the National Strategy to Secure Cyberspace (NSSC). In response, the Marine Corps established MARFORCYBER in October 2009, with headquarters located at Fort Meade, MD. The objective of MARFORCYBER is to integrate existing USMC and MAGTF cyber capabilities with joint efforts for unity of effort, a common cyber operating picture, and a more efficient construct that permits the MAGTF and joint forces to operate, defend, and respond at "network speed." The initial operational capability (IOC) of CYBERCOM and MARFORCYBER was on 1 October 2009, with full operational capability (FOC) of both set for 1 October 2010.

MARINE CORPS NETWORK OPERATIONS AND SECURITY CENTER (MCNOSC)

The MCNOSC's mission is to direct global network operations and defense of the Marine Corps Enterprise Network (MCEN) and provide technical leadership to facilitate seamless information exchange in support of Marine and joint forces operating worldwide. The MCNOSC is the Corps' nucleus for enterprise data network services, network support to deploying forces, and technical development of network-enabled IT solutions. The MCNOSC operates and manages all aspects of the MCEN, collects and shares Global Information Grid (GIG) situational awareness, reports and directs actions in response to operational incidents, and provides technical leadership to ensure Marine Corps and joint capabilities leverage new technologies to the advantage of the Marine warfighter. MCNOSC personnel monitor MCEN operations around the clock through an array of strategically positioned sensors to ensure the availability and security of the network. Assigned by the Joint Task Force – Global Network Operations (JTF-GNO) to defend the MCEN against cyber attack, the MCNOSC conducts preventative actions, attack detection, and incident response to the rapidly increasing and complex number of threats to Marine Corps use of cyberspace.

MARINE CORPS TRAINING AND ADVISORY GROUP (MCTAG)

Assigned to MARFORCOM and headquartered at Fort Story, VA, MCTAG will achieve FOC in FY 2010. MCTAG was formed in 2007 to coordinate Marine Corps security force assistance (SFA) efforts; to provide conventional training and advisor support to host nation security forces (HNSF) or to general purpose forces (GPF) partnering with HNSF; and

to provide planning assistance to Marine component commands (MARFORs) in developing and executing partner nation (PN) training programs in order to build partner capacity in support of geographic combatant commander's SFA objectives. MCTAG provides specialized engagement capability; creates effective advisors to conduct SFA missions; assists MARFORs in the development of PN training/development plans; and establishes and maintains long-term, persistent relationships with country teams and PN militaries. MCTAG is the link between MARFORs and supporting forces, providing coordination, planning, liaison, and assessment support. In addition, MCTAG provides oversight and coordination and synchronization for all Marine Corps SFA activities and enabling support to the operating forces, supporting establishment, and reserve forces. Teams are composed of officers and staff non-commissioned officers that are regionally oriented and provide advisory and training team support to MARFORs supporting theater SFA plans. MCTAG trains and deploys task-organized advisor/trainer teams to support operational requirements. The pre-deployment training program (PTP) for advise, train, and assist (ATA) teams consists of individual, core, unit, and mission specific training based upon region, country, and mission requirements as determined by the geographic combatant commanders, MARFORs, and MCTAG.

CHEMICAL AND BIOLOGICAL INCIDENT RESPONSE FORCE (CBIRF)

The Marine Corps' CBIRF is a unique capability that maintains a high state of readiness to respond to asymmetric enemy action at home or abroad. Established in 1996 and headquartered in Indian Head, MD, CBIRF is a subordinate unit of II MEF. Its mission is to forward deploy and/or respond to a credible threat of a chemical, biological, radiological, nuclear, or high yield explosive (CBRNE) incident in order to assist local, state, or federal agencies and designated COCOMs in the conduct of consequence management operations by providing capabilities for agent detection and identification; casualty search; rescue; personnel decontamination; emergency medical care; and stabilization of contaminated personnel.

CBIRF consists of approximately 450 Marines, Sailors, civilian employees and contractors. CBIRF is organized into three permanent companies: a headquarters and service company and two reaction force companies. For contingency operations, CBIRF will be task organized to form one or two incident response forces (IRF) that can forward deploy on short notice to a pre-designated staging site in response to a credible threat or an approved request for support. Normally these are designated a homeland security special event. CBIRF can deploy by land, sea, or air.

Each IRF has the following capabilities: an all hazard reconnaissance capability; a casualty search and extraction capability; a medical capability; a decontamination capability; a technical rescue capability; an explosive ordnance disposal (EOD) capability; a command control, communications, computer, and Intelligence (C4I) capability; and a self-sustainable logistic capability. A newly developed DOTMLPF change request (DCR) will serve to baseline both existing and future program requirements.

The Marine Corps' CBIRF has deployed in support of many notable national special security events and homeland security special events, including presidential inaugurations; state funerals; the State of the Union Address; G-20, and NATO summits; diplomatic visits; and the Olympic Games.

MARINE CORPS SECURITY FORCE REGIMENT

The 2200 Marines and Sailors of the regiment serve U.S. bases and interests worldwide. Re-designated in 2008, the regiment has evolved from its legacy mission of physical security for naval bases worldwide. Marines no longer greet visitors to naval bases or stations, nor do they maintain security detachments on board naval vessels. Instead, Marine Corps Security Force Regiment is a dedicated security and anti/counter-terrorism unit of the Marine Corps. Its mission is to organize, train, equip, and provide expeditionary anti-terrorism and security forces in support of regional combatant commanders and naval commanders in order to conduct security operations, and to provide security for strategic weapons and vital national assets.

Headquartered in Norfolk, VA and a subordinate unit of II MEF, Marine Corps Security Force Regiment is one of the Marine Corps' most diverse regiments. It provides a national security element with a global deploying force. The regiment consists of two security force battalions and three fleet antiterrorism security team (FAST) companies. Security Force Battal-

ions Kings Bay, GA and Bangor, WA provide fixed-site installation security with the missions of protecting key naval assets — including strategic weapons, command and control facilities, naval support activities — and recapturing of compromised strategic assets. The security force battalion mission is extremely challenging as it is conducted 365 days a year and in all weather conditions. This vital mission requires the finest national asset; well-trained Marines and Sailors. All personnel assigned receive special training in basic and advance security techniques and are continuously vetted through the personnel reliability program.

Established in 1987, FAST companies provide a worldwide rapidly-deployable force with the mission to deter and defend against terrorist threats to naval installations and vessels and reinforcement of U.S. government installations (primarily U.S. embassies) worldwide. Currently, Marine Corps Security Force Regiment has three FAST companies with eight FAST platoons and company headquarters elements forward deployed in support of Naval Forces component

commands in Europe, Pacific, and Central Command, as well as at Guantanamo Bay, Cuba. Trained in infantry skills, FAST platoons receive additional training in antiterrorism, close quarter's battle, precision marksmanship, and use of nonlethal weapons, site security, and convoy operations. Highly trained and ready to conduct short-notice missions, in recent years FAST Marines have proven themselves in more than 70 special security missions, from Operation Desert Shield/Storm, to the port-security mission following the attack on USS *Cole*, to missions in Liberia, Panama, Cuba, Kenya, Haiti, Afghanistan, and Iraq.

Supporting Establishment

Marine Corps bases and stations — often referred to as the "fifth element" of the MAGTF — comprise the personnel, bases, and activities that support the Marine Corps' operating forces. This infrastructure consists primarily of 15 major bases and stations in the United States and Japan, as well as the personnel, equipment, and facilities required to operate them. These bases and stations fall under several regional commands to include Marine Corps Installations-East (MCI-East), MCI-West, and MCI-Pacific.

The supporting establishment also includes the Marine Corps Logistics Command (MCLC) and Training and Education Command (TECOM). Additionally, the supporting establishment includes civilian activities and agencies that support Marine forces. The following sections highlight several of the unique organizations in the supporting establishment.

TRAINING AND EDUCATION COMMAND (TECOM)

Located in Quantico, VA, TECOM is a key component of MCCDC. TECOM is tasked with the development, coordination, resourcing, execution, and evaluation of training and education concepts, policies, plans, and programs to ensure Marines are prepared to meet the challenges of present and future operational environments. Some of the unique organizations within TECOM that carry out this mission are described below.

Marine Corps Tactics and Operations Group (MCTOG): MCTOG, is located at the Marine Corps Air-Ground Combat Center (MCAGCC) in 29 Palms, CA. MCTOG provides advanced training in MAGTF operations; combined arms coordination and unit readiness; and training planning at the battalion and regimental levels; and synchronizes doctrine and training standards for the ground combat element (GCE) in order to enhance combat preparation and performance of GCE units in MAGTF operations. The MCTOG accomplishes this task through the implementation of the GCE operations and tactics training program (GCEOTTP). The GCEOTTP creates a common ground "community of practice" for training and operations.

Security Cooperation Education and Training Center (SCETC): SCETC is a directorate of TECOM and is responsible for implementing and evaluating Marine Corps security cooperation education, training, and programs, in support of MARFORs. SCETC is tasked with the full range of support to security cooperation (SC) and security Assistance (SA) missions that support building partner capacity. By sourcing training teams from TECOM training venues and schoolhouses, SCETC coordinated the support of more than 60 security cooperation engagements with 50 partner nations worldwide over the last two years. These training teams build capacities to "train, advise, and assist" particularly with regard to 'institutional building' functions and the strategic planning focus in the Global Employment of the Force.".

SCETC manages international students attending Marine Corps schools under a variety of programs. In FY 2009, SCETC managed the education or training of 724 international students from

72 partner nations. This also included the addition of a second cohort to the Command and Staff College Distance Education Seminar and establishment of an Expeditionary Warfare Seminar in FY 2010, further expanding the international military education and training role in building partner capacity.

In coordination with MCTAG and MARFOR staffs, SCETC assessment teams support the MARFORs' theater security cooperation planning efforts by conducting SC planning assessments using a DOTMLPF construct for priority country planning. As an adjunct to SC planning, SCETC conducts a Security Cooperation Planners Course to provide Marine Corps planners a functional knowledge of polices, procedures, and planning considerations in the course of developing a security cooperation country plan. SCETC developed the Advise, Train, and Assist – Partner Nation Forces (ATA PNF) Training and Readiness (T&R) Manual in December 2008, providing greater capability for Marines to train and prepare for missions that interact with partner nations.

The SCETC civil military operations branch established the Civil Affairs T&R Manual as the basis for all civil affairs education and training. This included a civil affairs (MOS qualifying) school to train civil affairs Marines and a CMO planners' course to conduct and integrate CMO into MAGTF operations. Since 2008, SCETC CMO has provided pre-deployment training teams to support deploying Marine Corps civil affairs groups (CAGs), provisional CAGs, and deploying maneuver battalions expected to conduct civil military operations.

The Center for Advanced Operational Culture and Learning (CAOCL): CAOCL, a directorate of TECOM, is tasked with ensuring that Marines are regionally focused, globally prepared, and effective at navigating and influencing culturally complex 21st century operating environments. CAOCL accomplishes its mission through various means:

- It supports the Marine Corps in formulating policies, plans, and strategies to address regional understanding, operational culture, and language familiarization requirements across DOTMLPF concerns.
- Serves as the administrator and coordinator of the Marine Corps Regional, Cultural, and Language Familiarization (RCLF) Program. Through the RCLF Program, the Marine Corps develops cross-culturally competent service members with diverse regional understanding and language capacity to ensure that the Corps has assets within each unit to assist in operational planning and execution in all operationally significant regions of the world. This is a career-long education and training program that begins at accession and continues throughout a Marine's professional life.
- Provides pre-deployment training (PTP) and resources to ensure each Marine is equipped with the specific regional knowledge and understanding necessary to navigate and influence a specific operating environment to accomplish the mission. CAOCL makes its staff available to brief deploying forces and offers numerous computer-based products and other materials.
- Provides subject matter experts (SMEs) in direct support of the operating forces.

These SMEs are designed to assist commanders in understanding the cultural terrain of the battlespace and in planning operations.

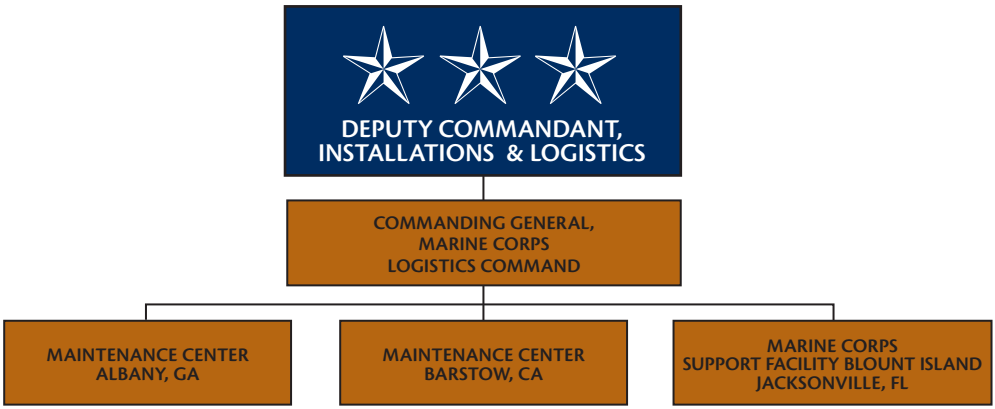
- Provides mobile training teams (MTTs) for delivering operational culture and language classes and briefings at home station or underway.

CAOCL, in order to provide an assortment of additional opportunities for operational culture and language self-study, is currently providing access to distributed learning computer-based products such as Rosetta Stone. This program provides 150 hours of self-paced computer based language familiarization in numerous languages. Additionally, the Tactical Language Training System (TLTS) provides language and culture training via four modules: Tactical Iraqi, Tactical Pashto, Tactical Dari, and Tactical Sub-Saharan Africa French. TLTS modules are high-end, interactive, video simulations using computerized characters, or 'avatars,' in a variety of tactical scenarios.

In an effort to meet home station training requirements, CAOCL is establishing Language Learning Resource Centers (LLRC) at all eight major Marine Corps bases to facilitate culture and language training for all Marines. The LLRCs are computer labs equipped with culture and language study materials/software. Finally, CAOCL liaison officers (LNOs) are provided to assist Marine forces in accessing resources, scheduling briefings, and fulfilling culture and language requirements.

MARINE CORPS LOGISTICS COMMAND (MCLC)

The Deputy Commandant, Installations and Logistics also provides oversight of the operations of MCLC. MCLC is tasked to provide worldwide, integrated logistics/supply chain and distribution management; maintenance management; and strategic prepositioning capability in support of the operating forces and other supported units to maximize their readiness and sustainability and to support enterprise and program level Total Life Cycle Management.



MARINE CORPS LOGISTICS COMMAND–FORWARD (MCLC-FWD)

The MCLC-Fwd capability was formed to fulfill the need to unify numerous disparate command logistic teams operating independently in the U.S. Central Command area of responsibility (CENTCOM AOR). The MEU augmentation program (MAP), forward-in-stores (FIS), principal end item (PEI) rotation, equipment retrograde, repairable issue point (RIP), and maintenance contact teams are successful MCLC-Fwd initiatives.

The MAP provides a limited equipment set within the CENTCOM Theater to enhance the combat readiness and responsiveness of MEUs as they conduct operations and to reduce the amount of MEU equipment that is shipped from the continental United States (CONUS). The FIS provides for the exchange of damaged equipment. The PEI rotation program rotates new or rebuilt equipment into the theater to exchange equipment items that have been in theater operating at maximum duty cycles for three to four years, thereby increasing readiness in theater and integrating procurement, modernization, and rebuilding efforts to maintain operational availability of equipment. The equipment retrograde program facilitates the turn in of equipment that is being replaced by new acquisition or is no longer required for theater requirements. MCLC-Fwd processes the items by arranging for transportation to CONUS, redistributing to meet other theater requirements, or turning the item over to the Defense Reutilization & Marketing Office (DRMO). The RIP program provides contractor augmentation to the Marine logistics group (MLG) RIP to source and manage selected secondary repairables as well as rebuild, overhaul, remanufacture, and augment packing and preservation capabilities at the RIP in order to expedite the issue and return of secondary repairables in the support of the deployed MAGTF. The maintenance contact teams are maintenance specialists deployed periodically to fulfill specific tasks of limited duration, such as applying armor to vehicles in country.

MARINE CORPS INFORMATION OPERATIONS CENTER (MCIOC)

MCIOC, scheduled for IOC in the second quarter FY 2010 and FOC in the second quarter FY 2011, will be the Marine Corps' centralized information operations (IO) resource and the executive agent for the Marine Corps IO program (MCIOP). Located in Quantico, VA, MCIOC will develop MAGTF IO tactics, techniques, procedures, and doctrine in

addition to supporting MAGTF operations and work within the Expeditionary Force Development System to define required MAGTF IO capabilities.

The MCIOC mission is to provide MAGTF commanders and the Marine Corps a responsive and effective, full-spectrum IO planning and psychological operations (PSYOP) delivery capability. The MCIOC will execute its mission by deploying scalable task-organized expeditionary IO planning teams (IOPT) and tactical PSYOP teams, as well as by providing a comprehensive general support IO "reach-back" capability which will ensure the integration of IO into Marine Corps operations. The MCIOC will be staffed with SMEs representing IO core, supporting, and related capabilities, including:

- IO mission planning
- Threat and nodal analysis
- Electronic warfare (EW)
- Military deception (MILDEC)
- Operations security (OPSEC)
- Psychological operations (PYSOP)
- Computer network operations (CNO)
- Supporting capability of combat camera (COMCAM)
- Related capability of civil military operations (CMO)
- Regional IO targeting
- Special technical operation (STO)

These SMEs will enable the MAGTF to plan and execute tactical IO to influence potential and realized adversary and indigenous information, information systems and decision-making, while simultaneously assuring, protecting, and defending similar Marine, joint, and coalition forces' capabilities.

The MCIOC's deployable IOPTs will enable the MAGTF IO capability through tactically focused training, operational planning support, tactics development, and formulation of IO requirements including research and development priorities. The IOPTs will be capable of training MAGTF IO personnel in the five core IO capabilities of EW, MILDEC, OPSEC, PSYOP, and CNO.

The IOPTs will also help MAGTF staffs understand IO techniques, tactics, and procedures to coordinate effectively with joint IO staff, supporting, and related IO capabilities. The MCIOC IOPTs will advise and assist the MAGTF IO staff in integrating IO into the MAGTF's mission planning. These teams will be on call and task organized to meet the MAGTF commander's requirements.

As the executive agent for the MCIOP, they will synchronize IO across all Marine Corps activities, integrate IO into all MAGTF plans and operations, and provide a common service understanding and definition of Marine Corps IO, ensuring IO becomes a core military competency within the Marine Corps.

CHAPTER 3

PROGRAMS

INTRODUCTION

The Marine Corps' primary role in the 21st Century is to be the Nation's "expeditionary force-in-readiness" that provides combined-arms operating forces, including integrated aviation and logistical components, for service as part of naval, joint, and combined forces world wide. Marine forces magnify the projection of U.S. forces, ensuring that they remain influential in peacetime, compelling in crisis, and decisive in war. As we look ahead, we will return to our roots of a lighter, faster, hard-hitting, expeditionary and sea-based Marine Corps that is reliant on agility, shock, and surprise.

Innovation and fiscal responsibility continue to be hallmarks of the Marine Corps. We continue to invest limited resources to restore combat capability and enhance our Marines' readiness at home and in overseas operating areas. We are constantly monitoring our total investment requirements against changing demands. In Marine Corps ground and aviation programs, for example, we continue to test, develop, and procure dual-use systems and employ emerging technology. Throughout, however, our focus remains on the individual Marine's ability to carry out the tasks at hand.

Chapter Three of this 2010 edition of *Concepts and Programs* provides information on Marine Corps programs of record and major end-item equipment, which will ensure that current and future Marines have what they need to accomplish the mission.

Acquisition Categories (ACAT)

The Department of Defense categorizes acquisition programs into several categories, generally based on their cost or testing requirements. This categorization is then used to identify oversight and approval requirements. A description of the most commonly discussed levels follows.

ACAT I: These are the largest acquisition programs and are also known as Major Defense Acquisition Programs (MDAP). To achieve this level of designation, a program must exceed $365 million in research and development funding or exceed $2.190 billion in procurement funding. The Marine Corps currently leads two ACAT I programs–the Advanced Amphibious Assault Vehicle Program, which will produce the Expeditionary Fighting Vehicle, and the V-22 Osprey Program. The Marine Corps also participates in numerous joint ACAT I programs, including Global Broadcast Service and the Joint Tactical Radio System. ACAT I programs have two subcategories: ACAT IC and ACAT ID.

ACAT IA: These are the largest automated information system (AIS) acquisition programs. There are several cost thresholds for this level, which include AIS programs with single year funding, in all appropriations, in excess of $32 million; total program cost in excess of $126 million; or total lifecycle costs in excess of $378 million. ACAT IA programs have two subcategories: ACAT IAM and ACAT IAC.

ACAT II: These programs do not meet the threshold for ACAT I, but have research and development funding in excess of $140 million or procurement funding in excess of $660 million. They are also known as Major Systems. The Marine Corps currently funds three ACAT II programs, including Medium Tactical Vehicle Replacement and Common Aviation Command and Control System. It also leads one joint ACAT II program, which is the Lightweight 155mm Howitzer, and participates in two other joint ACAT II programs.

ACAT III: Programs that do not meet the cost threshold for ACAT I or II and involve combat capability are designated ACAT III or IV programs. Within the Marine Corps, the designation generally depends on the level of program management and oversight assigned by Commander, Marine Corps Systems Command. The Marine Corps currently manages more than 20 ACAT III programs, leads approximately 12 joint ACAT III programs, and participates in another 27 joint ACAT III programs. This level includes less-than-major AIS programs.

ACAT IV: ACAT programs not otherwise designated ACAT I, IA, II, or III are designated ACAT IV. ACAT IV programs have two subcategories: ACAT IV(T) programs, which require operational test and evaluation, and ACAT IV(M) programs, which do not. The Marine Corps currently manages nearly 90 such programs, and leads or participates in more than 20 joint ACAT IV programs.

ACQUISITION PHASES AND TERMS

Material Solution Analysis Phase (Milestone A): This is the pre-system acquisition phase, during which initial concepts are refined and technical risk is reduced. Two major efforts may be undertaken in this phase. The first phase consists of short-term concept studies that refine and evaluate alternative solutions to the initial concept, and provide a basis for assessing the relative merits of these alternatives. The second phase is an iterative discovery and development process designed to assess the viability of technologies, while simultaneously refining user requirements.

Engineering and Manufacturing Development (Milestone B): This is the phase in which a system is developed. Work in this phase includes reduction of integration and manufacturing risk; ensuring operational supportability; human systems engineering; design for the ability to produce; and demonstration of system integration, interoperability, and utility.

Production and Deployment (Milestone C): This is the phase in which the operational capability that satisfies mission needs is ensured through operational test and evaluation. This evaluation determines a system's effectiveness, suitability, and survivability. The designated Milestone Decision Authority may decide to commit to production at Milestone C, either through low-rate initial production for major defense acquisition programs, or full production or procurement for other systems.

A Non-developmental Item (NDI): An NDI is any previously developed item of supply used exclusively for government purposes by a federal agency, a state or local government, or a foreign government with which the United States has a mutual defense cooperation agreement. An NDI requires only minor modifications or modifications of the type customarily available in the commercial marketplace in order to meet the requirements of the Marine Corps.

Initial Operational Capability (IOC): In general, attained when some units and/or organizations in the force structure scheduled to receive a system have received it and have the ability to employ and maintain it. The specifics for any particular system IOC are defined in that system's Capability Development Document (CDD) and Capability Production Document (CPD).

Full Operational Capability (FOC): In general, attained when all units and/or organizations in the force structure scheduled to receive a system have received it and have the ability to employ and maintain it. The specifics for any particular system FOC are defined in that system's Capability Development Document (CDD) and Capability Production Document (CPD).

PART 1:

THE INDIVIDUAL MARINE

INTRODUCTION

The "Individual Marine" is the heart and soul of the Nation's Marine Corps. The individual Marine is trained, educated, and equipped to operate across the broadest spectrum of missions and tasks — a "two-fisted" fighter highly effective in major contingencies but equally capable in irregular warfare and responding to crises worldwide.

While today's Marines are superbly operating in every clime and place, it is a leadership obligation to Marines, their families, and the Nation to be prepared for tomorrow. With the growth of the Marine Corps to 202,000 Marines, the individual Marine will remain the number-one priority. While a Marine's focus in the field is on excellence and mission accomplishment, the focus of Marine Corps programs is on the "tools" needed for operational success; Marines deserve nothing but the best that the Nation can afford.

The commitment to Marines extends to those who have returned with severe injuries. The Wounded Warrior Regiment is the key to continuing to provide and facilitate assistance to wounded, ill, or injured Marines and their family members throughout the phases of recovery. Likewise, the Marine Corps looks to Marine families as a source of strength, particularly when their loved ones are deployed overseas. The Marine Corps will provide them with the necessary support network during those periods of separation. In short, Marines take care of their own.

Quality of Life (QOL)

As an institution, the success of the Marine Corps is inextricably linked to personal and family readiness. Meeting the reasonable QOL expectations of Marines and families supports this effort, improves unit readiness, and reinforces the recruiting and retention mission. The Marine Corps is committed to enhancing and sustaining the quality of life of Marines and their families. The Commandant and senior Marine Corps leadership place great emphasis on improving QOL and regularly conduct town hall meetings to hear directly about the issues and concerns of Marines and family members.

The Marine Corps measures QOL satisfaction in areas such as residence, leisure and recreation, health and health care, income and standard of living, job satisfaction, and spouse career opportunities. The most recent survey indicates that, despite the high operational tempo during the past several years, Marines continue to report strong levels of satisfaction with their quality of life.

Marine Corps Community Services (MCCS) provides more than 80 programs, including the Marine Corps Exchange (MCX), that support unit commanders in fulfilling personal and family readiness responsibilities. The MCX is committed to providing desired products and outstanding value; and an aggressive construction program focuses on ensuring clean and modern facilities.

The Marine Corps will continue to monitor the QOL of Marines and their families and will re-administer the *QOL in the Marine Corps* study in 2010. This study has been conducted in 1993, 1998, 2003, and 2007 under the sponsorship of the Deputy Commandant for Manpower and Reserve Affairs (M&RA).

Taking Care of Marines and Families

Today's Marines carry on a proud tradition of being ready to answer the Nation's call at a moment's notice, serving with distinction in the face of great challenges. The rigors of the military lifestyle are challenging not only to Marines but also to their families, who must cope with separations, relocations, and frequent deployments. The Marine Corps is committed to supporting the efforts of Marines and their families to adjust to and overcome the unique challenges they are facing.

Transitioning to a Wartime Footing. Based on a series of assessments, surveys, focus groups, and town hall meetings, the Commandant of the Marine Corps directed a major transformation of family support programs, a multi-year effort already well underway. The Unit Personal and Family Readiness program (UPFRP), the Exceptional Family Member program (EFMP), School Liaison, and Marine Corps Family Team Building (MCFTB) program represent the fundamental change that the Commandant's direction will bring in how programs are delivered. There are now more than 400 full-time Family Readiness Officers working directly for unit commanders in support of Marine and family readiness responsibilities. Some 8,500 Marines and their family members enrolled in the EFMP are now receiving case management services aimed at providing a continuum of care to facilitate a seamless transition from installation to installation. Recognizing that military children face unique challenges due to the mobile lifestyle of their parents, school liaison positions have been established at every Marine Corps installation, as well as at the regional and national level to address issues such as entrance and graduation requirements and transfer of records. MCFTB is an MCCS program that provides high-quality training to support the life cycle of the Marine and family through mission, career, and life events. These improvements and initiatives, funded in FY 2008 and 2009 largely through supplemental appropriations, will be sustained as part of the baseline MCCS budget.

Long-Term Transition Efforts. The availability of quality, affordable child care continues to be a major QOL concern of Marine families. While the number of on-installation child care spaces increases through construction of Child Development Centers, the Marine Corps is using multiple strategies to address the requirements of parents away from Marine Corps stations and bases.

Another important QOL concern for Marines and their families is the ability of the spouse to establish and maintain a career regardless of the sponsor's duty station. The Marine Corps Family Member Employment Assistance Program (FMEAP) is developing comprehensive and integrated strategies to build on re-

cent initiatives to provide portable careers and education funding, and to support employment, training, and educational requirements of spouses.

The Transition Assistance Management Program (TAMP) is often the final contact Marines have while on active duty with the many support programs available. The Marine Corps is currently exploring opportunities to maximize the effectiveness of this program by more efficiently connecting Marines and their families to education, training, and jobs as they prepare to transition from the active duty Marine Corps.

The Marine Corps has seen increases in suicides, domestic violence, substance abuse, and sexual assault in recent years, highlighting the need for improved prevention efforts and corrective policies and procedures in behavioral health programs. The Marine Corps has undertaken a major effort in suicide prevention with a new, high-impact training program taught by non-commissioned officers (NCO) that equips them to be the first line of defense, recognizing an NCO's key role in keeping Marines safe and ready. The Marine Corps will continue to pursue multiple initiatives to prevent suicides, which include reevaluating existing programs designed to reduce the stressors associated with suicidal behavior, developing and distributing new prevention programs, refreshing and expanding training materials, and establishing installation-level suicide prevention specialists.

Additional staffing initiatives include the establishment of regional, installation, and unit-level Sexual Assault Program Coordinators, as well as the expansion of combat stress control capabilities through the Operational Stress Control and Readiness (OSCAR) program. OSCAR is focused on proving direct support to all active and reserve ground combat elements, with the ultimate goal of supporting all elements of the Marine Air Ground Task Force (MAGTF).

In order to enable the widest access to family support programs, especially for Reserve and independent duty Marines and their families, the Marine Corps is studying the potential of community-based program delivery, rather than the traditional installation-based model. In doing so, the Marine Corps would maximize use of other federal and state agencies to meet the needs of this population. In areas where community-based programs do not have capacity or are unavailable, such as remote and isolated commands, efforts will be focused on increasing capabilities aboard the installation.

The Marine Corps is committed to sustaining the significant progress underway to assure personal and family readiness, continuing to aggressively reassess, evaluate, and further transition Corps-wide Marine and family support capabilities. This unending effort gives quantifiable meaning to the mission of "Taking Care of Marines and their Families."

Wounded Warrior Regiment (WWR)

The mission of the WWR is to provide and facilitate non-medical care to combat and non-combat wounded, ill, and injured (WII) Marines and Sailors attached to, or in direct support of, Marine units and their family members throughout all phases of recovery. The Regimental Headquarters element, located in Quantico, VA, commands the operations of two Wounded Warrior battalions located at Camp Pendleton, CA and Camp Lejeune, NC. The regiment provides guidance, direction, and oversight to the Marine Corps wounded warrior process through a single commander and eliminates any gaps in the medical recovery system through unity of command and effort. These wounded warriors are still very much in the fight, and the regiment strives to craft positive programs and support that focuses on wounded warriors' abilities as they look to their future. WWR provides a wide range of assistance including:

- Providing guidance regarding the medical and physical evaluation board processes;
- Assisting with filing Traumatic Service Members Group Life Insurance (TSGLI) claims and adjudicating all Marine Corps claims for TSGLI benefits;
- Coordinating charitable gifts, donations, or other types of offers of assistance;
- Coordinating and overseeing non-medical case management during recovery;
- Ensuring the same level of medical care regardless of geographic location;
- Overseeing the transition from Department of Defense care to Department of Veterans Affairs care;
- Provide assistance to WII Marines with pay and entitlement issues;
- Facilitating Department of Labor employment opportunities for separating WII Marines.

The WWR's structure rests upon four main elements: face-to-face contact during all phases of recovery; close working relationships with other government organizations; open lines of communication with WII Marines and their families; and forward-looking program assessments and future planning.

The WWR maintains face-to-face contact when providing information and assistance to service members, families and medical facility staff. The WWR commands Recovery Care Coordinators, who are geographically located throughout the country, to oversee the Marine Corps comprehensive recovery care pro-

gram to the WII Marines. District Injured Support Cells conduct visits and telephone outreach to Reserve and former Marines dispersed throughout the country. Inspector-Instructor sites assist with the patient affairs mission at civilian hospitals without patient affairs team (PAT) detachments. The WWR further relies on both Marine Corps liaisons at Department of Veterans Affairs Poly-trauma Rehabilitation Centers and Naval Hospital Liaisons to ensure personal contact when assisting WII Marines.

Building close working relationships with other governmental agencies is an important element of solving problems for our WII Marines and Sailors. WWR has two field grade officers at the Department of Veterans Affairs' Federal Recovery Coordinator's Office to facilitate the transition process and the receipt of benefits. WWR has both a Department of Labor representative and a Department of Veterans Affairs representative at the Regimental headquarters who work in the Transition Assistance Cell to find jobs for transitioning WII Marines and Sailors.

Open communication is critical for identifying and resolving problems encountered by our WII Marines and Sailors. The Sergeant Merlin German Wounded Warrior Call Center (1-877-487-6299) receives calls from WII Marines and their families and conducts outreach calls to those who have been wounded, ill or injured since 2001. Additionally, a toll free number (1-866-645-8762) was established in Landstuhl, Germany for families to contact their Marines and Sailors medically evacuated out of theater.

In preparation for the challenges associated with caring for WII in the years and decades to come, WWR established the Future Initiatives and Transformation Team (FITT). The FITT conducts assessments of current programs to find needed improvements and refine processes while also identifying tools and resources needed to tackle the future challenges in Wounded Warrior care.

The Infantry Automatic Rifle (IAR)

DESCRIPTION

The IAR program seeks to replace the current M249 Squad Automatic Weapon (SAW) in all infantry, and light armored reconnaissance squads. The IAR will be a non-developmental, 5.56mm automatic rifle that is lighter, more durable, more accurate, and more reliable than the M249 SAW.

OPERATIONAL IMPACT

Use of the automatic rifle will significantly enhance the automatic rifleman's maneuverability and displacement speed, while providing the ability to suppress or destroy targets of most immediate concern to the fire team.

PROGRAM STATUS

The IAR program entered the system development and demonstration phase during second quarter FY 2008 following a successful Milestone B decision. A successful Milestone C decision was achieved in fourth quarter FY 2009 and the program is currently in the production and deployment phase. Initial operational testing and evaluation is scheduled to conclude by third quarter FY 2010. Initial operational capability (IOC) is scheduled to be achieved during first quarter FY 2011, and full operational capability (FOC) is scheduled to be achieved during second quarter FY 2012. The Heckler and Koch 416 was selected as the USMC IAR.

Procurement Profile:	FY 2010	FY 2011
Quantity:	4,454	2,957

Developer/Manufacturer:
Heckler and Koch, Newington, NH

Modular Weapon System (MWS)

DESCRIPTION

The M16A4 rifle and an M4 carbine are the two weapons that satisfy the capability requirements of the MWS program. An M1913 Rail Adapter System (RAS) replaces the upper hand guards and incorporates a removable rear-carrying handle that were standard on M16A2 rifles. The RAS provides the capability to mount various accessories, including a modified M203 launching system, high-intensity flashlights, infrared laser illuminators, and optics. The MWS M4 carbine variant is selectively fielded to Marines whose billets and/or missions require the use of the shorter carbine.

OPERATIONAL IMPACT

The MWS significantly improves the ability to mount various accessories and will enhance accuracy, target detection, and engagement capabilities in both day and night conditions.

PROGRAM STATUS

Fielding of the MWS began in FY 2003. An increase in the Approved Acquisition Objective (AAO) due to complete replacement of M16A2 rifles Marine Corps-wide has extended fielding through FY 2011. The AAO is now approximately 191,372 M16A4 rifles and approximately 83,344 M4 carbines.

Procurement Profile:	FY 2010	FY 2011
M16A4	19,103	5,000
M4	8,333	0

Developer/Manufacturer:
M4: Colt Manufacturing Company, Inc., Hartford, CT

M16A4: Fabrique National Military Industries, Columbia, SC

Tactical Handheld Radio (THHR) Family of Systems (FoS)

DESCRIPTION

The THHR FoS has several nondevelopmental, tactical handheld, and amplified vehicular radio sets that provide reliable tactical communications, including a retransmission capability. The Marine Corps has a requirement for two handheld radios: the Intra/Inter Squad Radio (IISR) and the THHR.

The IISR is designed to provide small, lightweight, handheld tactical communications to infantry squads and fire teams to facilitate squad command and control, enabling squad members to communicate in tactical situations where hand and arm signals and voice communications are not practical. The IISR acts as a wireless intercom and possesses enough power to provide effective communications in open terrain, heavy vegetation, and urban environments. The IISR operates in the AM and FM bands of the 380-470 megahertz (MHz) frequency spectrum. The IISR is capable of both analog and digital operation.

The THHR is a secure handheld unit that supports the communications requirements of all elements of the MAGTF. The THHR operates in the AM and FM bands of the 30-512 MHz frequency spectrum, containing embedded communications security, and is interoperable with other radio systems, such as Single-Channel Ground and Airborne Radio System (SINGARS) and HAVEQUICK II, in the single-channel mode and frequency-hopping modes. In addition to the THHR, two vehicular amplification kits are included: the Dual Vehicle Adapter (DVA) and the Single Vehicle Adapter (SVA). The DVAs/SVAs are vehicular product lines that are fully interoperable with the Marine Corps' current inventory of combat net radios.

OPERATIONAL IMPACT

Legacy tactical handheld equipment within the Marine Corps exceeded its expected life span and was rarely used. As a result, the handheld units primarily consisted of locally purchased, commercially available radios that were not interoperable with Marine Corps combat net radios. The THHR FoS consolidates and exceeds legacy capabilities, lightens the combat load of individual Marines and small units, reduces tactical handheld radio operating costs, and provides line-of-sight radios into every tactical vehicle. The current versions of the THHR FoS have the expectations to remain in the Marine

Corps' inventory until the Joint Tactical Radio System (JTRS) solution reaches its full operational capability (FOC).

PROGRAM STATUS

The THHR FoS is in the post Milestone C phase of the acquisition process. All systems have been procured. Presently, six end-items are currently in the inventory: AN/PRC-153 (IISR); AN/PRC-148 (THHR), with its associated AN/VRC-111 DVA; and the AN/PRC-152 (THHR), with its associated AN/VRC-110 DVA and AN/VRC-112 SVA. The Marine Corps' AAOs are 51,463 IISRs, 19,786 THHRs, 9,947 DVAs, and 14,930 SVAs.

Developer/Manufacturer:
AN/PRC-152/AN/VRC-110/AN/VRC-112: Harris Corporation, Inc., Rochester, NY

AN/PRC-153: Motorola, Columbia, MD

AN/PRC-148/AN/VRC-111: Thales Communications, Inc., Clarksburg, MD

Marine Expeditionary Rifle Squad (MERS)

The MERS is a program charged with applying a system's engineering approach to equipping a Marine rifle squad, the most fundamental warfighting unit. The focus of the program is to view the Marine rifle squad in a holistic manner — one in which the squad comprises a whole much more effective than the sum of its individual members. The integration and configuration management of all components that are worn, carried, and consumed by the squad will increase lethality, mobility, and flexibility of infantry forces. MERS is the steward of the Marine rifle squad's suite of equipment and works with all the program managers at Marine Corps Systems Command (MARCORSYSCOM) to optimize and integrate the rifle squad's equipment.

The program has founded the GRUNTWORKS Squad Integration Facility. GRUNTWORKS provides a venue to engineer, evaluate, and try the capabilities and limitations of all equipment in development and under consideration for procurement that will be delivered to the infantry squad. This dynamic facility employs a human factors lab, equipment prototyping and modification workshop, a mobility platform integration area, and an infantry immersive environment focused on equipment evaluation in a foreign environment to accomplish equipment modernization and integration initiatives. Human factors and ergonomics are applied to the physical integration of the infantry squad's equipment. The physiological and performance impacts of fielding new equipment creates a constant set of trade-offs between weight and volume management, comfort, usability, simplicity, lethality, survivability, mobility, sustainment, and training given that it must perform in combat in any clime and place. MERS will highlight these trade offs and refine solutions that incorporate the capabilities of the Marine rifle squad as an integrated system.

MERS works closely with the Marine Corps Combat Development Command (MCCDC) MERS capabilities development officer and the Headquarters, U.S. Marine Corps Plans, Policy & Operations MERS infantry advocate. The triad has established an Integrated Infantry Working Group in order to ensure that the operating forces are equipped with opti-

mal solutions. Infantry battalion surveys are continuously conducted in theater and post deployment in order to identify trends and issues with infantry equipment. Integration efforts during 2010 include:

- Integration of all the items worn on a Marine's head into an optimized system of components of a head-borne system.
- Improvements in weapon weight characteristics and integration with equipment that is worn.
- Command and Control / Situational Awareness integration and information presentation methods.
- Squad electrical power analysis and power/data distribution on the Marine.
- Integration and anthropometry of the Marine in mobility platforms under development such as Joint Light Tactical Vehicle and Marine Personnel Carrier.
- Integration of the various unique items carried in the billet positions within the squad

The MERS Program Office is also the enhanced company operations (ECO) equipping coordinator for MARCORSYSCOM. MERS also coordinates the research and development efforts for the long-term objective of distributed operations. Infantry battalions are nominated by the MEF for ECO equipping and new equipment training. ECO equipment is currently listed in the battalions table of equipment. The robust command and control package combined with appropriate training will empower the NCO at the fire team and squad level and increase the battalion's capabilities to conduct warfighting.

Infantry Combat Equipment (ICE)

The Marine Corps' ICE program continues to pursue technological advancements in personal protective equipment. Fully recognizing the trade-off between weight, protection, fatigue, and movement restriction, the program is providing Marines the latest in personal protective equipment, such as the Modular Tactical Vest (MTV), Scalable Plate Carrier (SPC), Full Spectrum Battle Equipment (FSBE), Flame Resistant Organizational Gear (FROG), Mountain Cold Weather Layering System (MCWLS), and Three-Season Sleep System (3S).

Combat operations in Iraq and Afghanistan have highlighted the need to evolve the personal protective vest system. In February 2007, the Marine Corps began transitioning to a newly designed MTV. This vest is close in weight to its predecessor, the Outer Tactical Vest (OTV), but it integrates easily with the other personal protection systems. It provides greater comfort through incorporation of state-of-the-art load carriage techniques, which better distribute a combat load over the torso and onto the hips of the Marine. In April 2009, critical deficiencies were identified with the fielded MTVs that required immediate correction. In response, the program developed the Improved MTV (IMTV), comprising a vest with removable soft armor panels that will provide the same degree of fragmentation and direct fire protection as the current MTV, but at a reduced weight.

The SPC is used as an additional ballistic vest, not to replace the MTV, but to provide additional warfighting effectiveness by allowing greater maneuverability, agility, and mobility with reduced thermal stress in high elevations, thick vegetation, and tropical environments than that provided by the OTV/MTV. The SPC offers the same level of ballistic protection as the MTV but reduces overall weight by reducing area coverage for fragmentation. The Plate Carrier (PC), which will replace the SPC, uses a government design that improves shoulder comfort and cummerbund stability compared to previously fielded systems.

The FSBE provides ballistic protection, brief underwater breathing capability, flotation, and limited load carriage to meet the specific mission profiles required by the Marine Corps force reconnaissance community, fleet anti-terrorism security teams (FAST), and Marine Expeditionary Unit (MEU) helicopter assault companies.

In February 2007, the Marine Corps began fielding FROG to all deployed and deploying Marines. This lifesaving ensemble of flame-resistant clothing items — gloves, balaclava, long-sleeved undershirt, combat shirt, and combat trouser — is designed to mitigate potential inju-

ries to Marines from flame exposure. The Marine Corps continues the spiral development of FROG II to reduce weight and increase comfort, durability, and flame-resistant properties.

The MCWLS is in response to the needs of Marines operating in mountain environments, such as those in Afghanistan. This system consists of the lightweight exposure suit, jacket, WindPro fleece and cap, parka, trousers, and boots. The upgraded base layers for MCWLS are flame resistant and lightweight.

In September 2008, the Marine Corps identified a need to provide a smaller and lighter sleep system to replace the Modular Sleep System. The 3S leverages technological advances in textiles and insulation to increase environmental protection while reducing the weight and volume of the sleeping bag. The 3S, incorporating the existing layered clothing systems, provides 15 degrees greater protection, is one pound lighter, and eight percent smaller than the green patrol bag in the Modular Sleep System (MSS). The 3S is designed to be used at 20 degrees with lightweight insulating layers, and as low as 10 degrees when wearing all of the provided insulating clothing layers. Providing a greater temperature range in which Marines can operate than the MSS, the 3S increases the mobility and survivability of the individual Marine.

Many of these initiatives come via the Marine Enhancement Program(MEP). The MEP Working Group includes core representatives from Plans, Policies and Operations; MCCDC; and MARCORSYSCOM. Nominations for the MEP initiatives come from Marines via the website, email and the Advocate, or through review of the U.S. Army's Soldiers Enhancement Program (SEP) for capabilities matching a Marine Corps need. Nominated capabilities must focus on commercial-off-the-shelf or Non-Developmental Items that can be executed quickly. The 2010 MEP priority list includes: Improved Helmet Suspension/Retention System; Next-Generation Individual Load Bearing Equipment; Crew-Served Weapons Pack; Individual Water Purification System; Tactical Assault Panel; and PVS-14 Night Vision Goggle Pouch.

Day Optics Systems

DESCRIPTION

The AN/PVQ-31A (for the M16A4) and AN/PVQ-31B (for the M4) rifle combat optic (RCO) are the cornerstones of the day optics program. The RCO is a fixed 4X optical aiming sight designed for use with the rifles configured with the MIL-STD-1913 Rail Adapter System. It attaches to the rail to provide the user a targeting tool to engage distant daylight and near low-lit targets with increased identification certainty.

The SU-258/PVQ machine gun day optic (MDO) and the SU-258/PVG squad day optic (SDO) initiatives are the solutions to rapidly fielding a 6X day optic for the M240B and a 3.5X day optic for the M249, respectively.

OPERATIONAL IMPACT

The RCO provides enhanced target identification and hit probability for the M4A1 and M16A4 rifle out to 800 meters. It incorporates dual illumination technology using a fiber optic light source for daytime illumination and tritium for night and low-light use. This allows the operator to keep both eyes open while engaging targets and maintain maximum situational awareness.

The MDO and SDO provide enhanced target identification and hit probability for the M240G and M249 machine guns out to 1,000 and 800 meters, respectively. MDO and SDO incorporate dual illumination technology using a fiber optic light source for daytime illumination and tritium for night and low-light use. MDO and SDO are additionally provided with miniature reflex sights for enhanced situational awareness and engagements of close-range targets.

PROGRAM STATUS

A total of 211,430 RCOs have been procured through FY 2009 with deliveries ending in FY 2010. The MDO and SDOs were awarded in FY 2009 for procurement of 10,933 MDOs and 11,176 SDOs with deliveries occurring in FY 2010 through 2012.

Developer/Manufacturer:
RCO/SDO/MDO: Trijicon Industries, Detroit, MI

Laser Targeting and Illumination Systems

DESCRIPTION

The AN/PEM-1 Laser Borelight System (LBS) is a Class 2 laser device that emits a highly collimated beam of visible light for precise zeroing. This system facilitates zeroing of infrared illumination (I2) sights, thermal weapon sights, and laser aiming devices. The AN/PEM-1 has a low-power laser setting that is useful when performing weapon bore sighting during daylight, low light, and darkness conditions.

Both the AN/PEQ-15 advanced target pointer illumination aiming light (ATPIAL) and the AN/PEQ-16A miniintegrated pointer illuminator module (MIPIM) are Class 3b laser devices that provide a highly collimated beam of infrared energy for weapon aiming and an adjustable focus infrared beam for target illumination. The AN/PEQ-16A also has a white light illuminator that provides target identification and illumination without the use of night vision devices.

The AN/PEQ-18 high power laser pointer (HPLP) is a Class 4 infrared laser pointer and illuminator for use with night vision or infrared sensitive camera systems. The beam is adjustable from tight pinpoint to a wide flood beam with a quick twist of the lens. A multiposition switch allows the laser to operate at three different power levels: LOW (500mW); HIGH (900mW); and PULSE (1000mW@304Hz).

The AN/PSQ-18A grenade launcher day/night sight mount (GLDNSM) is an enhanced aiming device designed to enable the Marine to rapidly and precisely fire the M203 40mm grenade launcher in daylight, low light, and night conditions.

OPERATIONAL IMPACT

The AN/PEM-1 enables Marines to quickly and accurately establish or reconfirm battle site zero (BZO) to weapons without consuming ammunition to verify the zero. The LBS is optimized for 5.56mm, 7.62mm, and .50 caliber weapons.

Both the AN/PEQ-15 and the AN/PEQ-16A provide increased accuracy for every Marine by providing a laser aiming capability and the ability to illuminate targets in low light and night conditions when using a night vision device.

The AN/PEQ-18 gives the Marine the option of using a pinpoint target pointer or a wide flood beam with the quick twist of a switch and allows the Marines to use three different power levels, low, high, and pulse.

The AN/PSQ-18A GLDNSM provides Marine grenadiers increased first or second round accuracy to within five meters.

PROGRAM STATUS

The AAO quantity for each is as follows:

Procurement Profile:	FY 2010	FY 2011
AN/PEM-1:	235	0
AN/PEQ-15:	2,635	0
AN/PEQ-16A:	524	0
AN/PEQ-18:	0	0
AN/PSQ-18A	1,050	0

Developer/Manufacturer:
LBS: Insight Technology, Inc., Londonderry, NH

AN/PEQ-15: Insight Technology, Inc., Londonderry, NH

AN/PEQ-16A: Insight Technology, Inc., Londonderry, NH

AN/PEQ-18: B.E. Myers, Redman, WA

AN/PEQ-18A: Insight Technology, Inc., Londonderry, NH

PART 2:

COMMAND AND CONTROL

INTRODUCTION

The *Marine Corps Command and Control (C2) Initial Capabilities Document (ICD)*, approved by the Joint Requirements Oversight Council in February 2008, and the *Marine Corps Functional Concept for Command and Control*, approved in 2009, incorporate joint integrating concepts and C2 mandates and articulate our goal of delivering end-to-end, fully integrated, cross-functional capability to include forward-deployed and reach-back functions. This concept represents a fundamental shift in the way we view and deal with the dynamic challenges of command and control. It emphasizes that command and control must be leader centric and network enabled. As such, it envisions network capabilities that will connect all elements and echelons of the Marine Air Ground Task Force (MAGTF) with joint forces and mission partners to create unparalleled information sharing and collaboration, adaptive organizations, and a greater unity of effort via synchronization and integration of force elements at the lowest levels.

This concept assumes a complex, chaotic security environment, requiring greater dependencies among joint, inter-agency, governmental, and multinational partners. It describes how commanders can achieve decision superiority and implement effective military actions faster than adversaries. It also describes an evolving command and control capability to enable multi-capable MAGTFs to integrate many organizations into an effective team, while conducting operations across the range of military operations.

The programs discussed in this section will enable MAGTF commanders to exercise effective command and control and bring together all of the warfighting functions into an effective fighting force. In addition, these programs support the ability of the MAGTFs to participate in or lead joint and multinational operations. Importantly, they will ensure that individual Marines understand their commander's intent and can carry out complex operations — in peacetime, crisis and war — that safeguard vital U.S. interests, citizens, and friends.

Theater Battle Management Core Systems (TBMCS)

DESCRIPTION

TBMCS is an air war planning tool mandated by the Chairman, Joint Chiefs of Staff for the generation, dissemination, and execution of the Air Tasking Order/ Airspace Control Order (ATO/ACO). The host system resides with the Aviation Command Element in the Tactical Air Command Center (TACC,) with remote systems located throughout the Marine Air Ground Task Force to allow dynamic mission updates.

OPERATIONAL IMPACT

TBMCS is the principal aviation Command and Control (C2) tool within Marine aviation C2 systems and the Theater Air Ground System for the development and execution of the ATO. It is a key system that supports ATO planning and development and provides the automated tools necessary to generate, disseminate and execute the ATO/ACO in joint, coalition, and Marine Corps-only contingencies.

PROGRAM STATUS

TBMCS version 1.1.3 is now fielded throughout the operating forces and the joint community. Discussions between joint, Marine Corps, and other service representatives are developing a way ahead for sustainment of version 1.1.3 and the eventual transition to a new system.

Global Command and Control System (GCCS)

DESCRIPTION

The GCCS uses joint system-of-record software to provide select Command and Control (C2) capabilities throughout the Marine Corps to plan, execute, and manage operations, including unit readiness reporting of personnel, equipment, and training. Planning, executing, and managing operations is done via the Joint Operations Planning and Execution System (JOPES), and unit readiness reporting is done via the Global Status of Resources and Training System (GSORTS). GCCS is fielded at the regiment level and above.

OPERATIONAL IMPACT

GCCS is the joint C2 system that provides operational commanders with the information and capability to plan, execute, and manage operations as well as the capability to report unit readiness.

PROGRAM STATUS

The Approved Acquisition Object of 194 servers and 320 clients has been achieved, and GCCS is in the sustainment phase of its acquisition life cycle, having reached Milestone C in 1997. GCCS will continue to sustain software upgrades across the Future Years Defense Plan as well as Marine Corps-wide hardware upgrades of GCCS servers and clients. GCCS is currently executing a client refresh that will last throughout FY 2010.

Procurement Profile:	FY 2010	FY 2011
Quantity:	320	0

Developer/Manufacturer:
Defense Information Systems Agency (DISA)

Global Combat Support System – Marine Corps (GCSS-MC)

DESCRIPTION

GCSS–MC is a portfolio of Information Technology systems that supports the logistics elements of Command and Control, Joint logistics interoperability, and secure access to and visibility of logistics data. At the core of GCSS-MC is the Logistics Chain Management (LCM) initiative which is the incremental implementation of commercial-off-the-shelf software (Oracle eBusiness Suite) to enable the Marine Corps' Logistics Operational Architecture (LOG OA). The first increment, Block 1, provides initial capabilities for GCSS-MC/LCM and is a separate acquisition program with its own milestone events. GCSS-MC/LCM Block 1 is focused on improved supply and maintenance capability in the operating forces and has the following goals:

- State-of-the-art software to improve the combat effectiveness of the operating forces;
- Design and fielding of a single capability that supports common processes in deployed operations and garrison environments;
- Retirement of legacy systems.

OPERATIONAL IMPACT

The GCSS-MC portfolio and the Block 1 initiative provide a modernized solution to an identified, critical warfighting deficiency in logistics information systems. It will facilitate change to antiquated logistics processes and procedures by introducing cutting edge, enabling technology in support of logistics operations. It will align our logistics efforts with real-world challenges, where speed and information have replaced mass and footprint as the foremost attributes of combat operations. Key capabilities in Block 1 include: (1) a multi-environment architecture, which provides for a Continental U.S. (CONUS) enterprise environment (reflective of Marine Corps CONUS organization) and a deployed Marine Air Ground Task Force environment ("cloned" from the enterprise environment and tailored to the mission); (2) a Cross Domain Solution, which allows data transfer between secure and non-secure networks; and (3) a Mobile Field Service capability, which allows for disconnected operations from the CONUS or deployed network.

PROGRAM STATUS

GCSS–MC is an ACAT 1A, Major Automated Information System. The program separated delivery of its core business functionality and deployable capability into Capability Release (CR) 1.1 and 1.2, respectively, in January 2009. Delivery of CR1.1 should begin within 3d Marne Expeditionary Force/Marine Corp Logistics Command in early CY 2010 with CR1.2 to be integrated shortly thereafter. The program anticipates a Milestone C acquisition decision during second quarter FY 2010.

Procurement Profile:	FY 2010	FY 2011
CONUS Enterprise	1	0
MEU/MEF	1/1	TBD

Developer/Manufacturer:
Oracle USA, Inc, Redwood Shores, CA

Common Aviation Command and Control System (CAC2S)

DESCRIPTION

CAC2S will provide a complete and coordinated modernization of Marine Air Command and Control System (MACCS) equipment. CAC2S will eliminate current dissimilar systems and provide the Marine Air Ground Task Force Aviation Combat Element (ACE) with the necessary hardware, software, and facilities to effectively command, control, and coordinate air operations integrated with naval, joint, and/or combined Command and Control (C2) units. CAC2S will comprise standardized modular and scalable tactical facilities, hardware, and software that will significantly increase battlefield mobility and reduce the physical size and logistical footprint of the MACCS.

OPERATIONAL IMPACT

CAC2S is an Acquisition Category IAC, Major Information Automated System Program. It has been restructured with an approved revised acquisition strategy to ensure the CAC2S program fields ready and proven technologies at the earliest opportunity. To achieve this goal, Increment I requirements will be achieved in two phases.

Phase 1 accommodates rapid fielding of operationally relevant capabilities to include mobility, situational awareness, tactical communications, information dissemination, and operational flexibility that will establish the baseline CAC2S capabilities. This phase will upgrade fielded MACCS equipment with mature, ready technologies and will establish an initial product baseline Processing and Display Subsystem (PDS) and Communications Subsystem (CS). Naval Surface Warfare Center, Crane, IN, will oversee the integration and upgrades of the previously developed and fielded system (AN/MRQ-12) into CAC2S PDS and CS.

Phase 2 has been structured to accommodate the integration of technologies necessary for the CAC2S Sensor Data Subsystem (SDS) to meet remaining ACE battle management and command and control requirements. This phase will build upon the capabilities of the Phase 1 product baseline by integrating the SDS with the Phase 1 PDS and CS, thereby fully meeting CAC2S Increment I requirements.

PROGRAM STATUS

CAC2S requirements were originally documented in an Operational Requirements Document in February 2003. The CAC2S requirements were adapted to a Capability Production Document and approved by the JROC in September 2007. The AAO for CAC2S is 50 systems.

Tactical Combat Operations (TCO) System

DESCRIPTION

The TCO System is the principal tool within the Marine Air Ground Task Force for situational awareness through distribution of the Common Tactical Picture and is the primary entry point for the Common Operational Picture (COP). The TCO System provides commanders at all echelons with the ability to map and display friendly and enemy locations, as well as plan, develop, display, and transmit overlays of intended movement. The TCO System also provides commanders in both garrison and tactical operations the ability to receive, fuse, store, develop, transmit, and display commanders' critical information requirements.

TCO comprises a server (IOS(V)1) backend for track database management, and the client (IOW(V)1) frontend, using the Joint Tactical COP workstation for COP visualization.

OPERATIONAL IMPACT

The TCO System is the Marine Corps Command and Control program of record that provides operational commands with the information and capability to manage the COP.

PROGRAM STATUS

The TCO System is fielded at echelons, battalion and above, with an Approved Acquisition Objective of 206 servers and 910 clients. The TCO system is in the sustainment phase of its acquisition lifecycle, having received Milestone C approval in 1995. The TCO System will continue to sustain software upgrades across the Future Years Defense Plan as well as Marine Corps-wide hardware upgrades of the IOS(V)1 server backend in FY 2013 and 2017, and the IOW(V)1 client frontend in FY 2013 and FY 2016.

Developer/Manufacturer:
Defense Information Systems Agency (DISA)

Composite Tracking Network (CTN)

DESCRIPTION

CTN is the adaptation of the U.S. Navy Cooperative Engagement Capability (CEC) to satisfy Marine Corps expeditionary maneuver warfare requirements. The network will provide Marine Corps Aviation Command and Control (C2) agencies the capability to distribute composite tracking and fire control data to Marine Corps and Navy C2 and weapons systems. CTN is an essential element in the Marine Corps future Command, Control, Communications, Computers, and Intelligence (C4I) Architecture.

OPERATIONAL IMPACT

CTN will provide the Marine Air Ground Task Force (MAGTF) commander a sensor netting solution that will help defend friendly forces from aircraft and cruise missiles. Near real-time correlation of local and remote sensor data, via the CEC/CTN network, will provide the MAGTF commander precise and accurate target-quality track data and will improve situational awareness and battlespace coverage.

PROGRAM STATUS

CTN has completed AN/TPS-59 Long-Range Radar interface development. The software interface development for Aviation C2 and Ground/Aviation Task Oriented Radar (G/ATOR) are underway. Milestone C was achieved in the first quarter FY 2009, and began Low Rate Initial Production in early 2010. Initial Operational Capability is scheduled for third quarter FY 2010.

Procurement Profile:	FY 2010	FY 2011
Quantity:	9	8

Developer/Manufacturer:
Naval Surface Warfare Center, Crane Division; Crane, IN

AN/TSQ-239(V) Combat Operations Center (COC)

DESCRIPTION

The COC is a deployable, self-contained, centralized facility that provides shared Command and Control/Situational Awareness (C2/SA) functionalities in a collaborative environment. The system is designed to enhance the tactical Common Operational Picture (COP) for all levels of the Marine Air Ground Task Force (MAGTF). It is a commercial-off-the-shelf, total turn-key, integrated hardware solution using unit-provided radios, legacy and re-hosted tactical data applications, and unit-available prime movers to provide mobility, modularity, and scalability for each assigned mission. In early 2010 there are three production COC system variants — the V(2), V(3), and V(4) — scaled to the Major Subordinate Command, the regiment/group, and the battalion/squadron, respectively. COC supports the MAGTF throughout the full range of military operations, including command and control, intelligence, maneuver, fires, force protection, and combat logistics.

The COC Program Office is upgrading the existing COCs to introduce an enhanced, integrated software baseline supporting warfighter needs. The COC Model G will introduce a service-oriented infrastructure (SOI) and is the primary system responsible for providing a user interface common across all hosted Tactical Data Systems (TDS). COC Model G will be deployed in an improved physical configuration, which upgrades suites of computer hardware and software, networking and communications capabilities, and physical facilities such as shelters, generators, and environmental controls. Model G Engineering Development Models will be provided by the prime vendor in FY 2010/2011.

OPERATIONAL IMPACT

COCs have been deployed to Operation Iraqi Freedom and Operation Enduring Freedom. They present, display, and communicate the Commander's intent and required information in support of Expeditionary Maneuver Warfare and all aspects of mid-intensity warfare. COC's state-of-the-art technology shortens the decision making cycle by providing intelligence and information on friendly and enemy locations and activities in a consolidated, easily recognizable video display viewed simultaneously by all staff functions within the COC complex.

PROGRAM STATUS

The AN/TSQ-239(V) F Model is in post-Full Rate Production and entering the Operations and Sustainment Phase of its life cycle. Fielding completion and Fully Operational Capable status will be met in FY 2010. The COC Program will continue to incorporate engineering changes and equipment technical refreshes to address operational requirements for improved technical capabilities and new system interface requirements. The Approved Acquisition Objective for the COC is 298.

Developer/Manufacturer:
General Dynamics C4 Systems,
Scottsdale, AZ

Joint Tactical Common Operational Picture (COP) Workstation (JTCW)

DESCRIPTION

The JTCW is a Windows®-based tactical COP workstation suite of applications designed for battalion and higher echelons to facilitate military Command and Control (C2) functions by improving situational awareness and enhancing operational and tactical decision-making. The JTCW replaces the fielded Command and Control Personal Computer (C2PC) software by combining C2PC with other applications into a single software load to provide greater capability for C2 planning and interoperability.

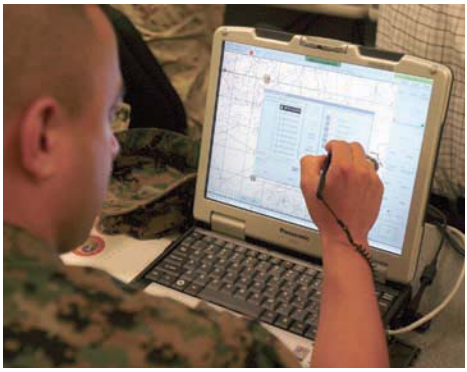
OPERATIONAL IMPACT

JTCW provides the warfighter a framework for enhanced systems interoperability and commonality between Marine Air Ground Task Force (MAGTF) Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance systems. JTCW is the primary point of entry for the COP, enabling users to view map data, view and update track data, develop and distribute overlays, exchange general message traffic, plan and distribute route information, and conduct general C2 planning. JTCW software will be loaded on the Intelligence Operations Workstation (IOW), and some of its software components will be integrated into future models of the MAGTF COC. JTCW can be operated in connected and disconnected operations.

PROGRAM STATUS

This Acquisition Category IV (T) program is using a single-step acquisition strategy. During the fourth quarter FY 2009, the JTCW and Tactical Combat Operations System Program Offices conducted fielding and training to achieve an initial fielding of JTCW 1.0 on the IOW. JTCW is scheduled to reach Initial Operational Capability in FY 2010. The Approved Acquisition Objective (AAO) is 910 systems for the TCO/IOW; the AAO for the COC has yet to be determined.

Blue Force Tracker (BFT) – Family of Systems (FoS)



DESCRIPTION

The BFT FoS is the Marine Corps portfolio of systems that provides tactical input/output battlefield digitized position location information and situational awareness at the company level and below. BFT FoS consists of the BFT, the Mounted Refresh Computer (MRC), Joint Capabilities Release software, the BFT Tactical Operations Center (TOC) Kit, the KGV-72 encryption device, and the BFT II transceiver. The BFT is a two-way, satellite-based command and control system that allows users to send and receive locations of friendly forces and display these positions on maps and overlays. The TOC Kit is a variant of the BFT that brings the BFT capability into operation centers and the MRC provides the same capability as the BFT, although it is terrestrial-based, riding on an Enhanced Position Location Reporting System tactical radio network. Subcomponents of the BFT are the KGV-72, an in-line encryption device that will classify the celestial based BFT to Type I, and the BFT II, the next-generation transceiver that will replace the legacy MT-2011, increasing system bandwidth and reducing current latency.

OPERATIONAL IMPACT

The BFT FoS provides the operating forces the ability to more effectively command and control forces by providing friendly unit identification and location, as well as friendly intent and status. This new suite of equipment is enhanced by its ability to both transmit and receive friendly force data on tactical, terrestrial radios as well as celestial L-Band transceivers employing commercial satellite services.

PROGRAM STATUS

BFT is an Army-led Acquisition Category I, Component (C) program. The program currently operates in the Marine Corps from an Urgent Universal Needs Statement; however, it is transitioning to a program of record. The program office is currently procuring and delivering BFTs and TOC kits with legacy software. JCR software, the MRC, and the KGV-72 have been developed and are undergoing Field and Operational Testing. A combined fielding is expected in the first quarter FY 2011, with the BFT II to follow in the fourth quarter FY 2011.

Marine Corps Enterprise Information Technology System (MCEITS)

DESCRIPTION

MCEITS is an enterprise Information Technology (IT) capability that delivers value to Marine Corps decision makers, application owners, information managers, and network users. MCEITS provides enterprise IT services contained within a world-class application and data hosting environment with supporting communications, computing network, information assurance, and enterprise services infrastructure.

The MCEITS service management design contains industry best practices and will utilize IT Infrastructure Library (ITIL) based principles and methods to provide capabilities to meet Operating Forces and Supporting Establishment requirements. These best practices will ensure that MCEITS provides the Marine Corps a strategic net-centric capability, and also ensures that MCEITS becomes the core enabler of the computing and communications capabilities of the MAGTF C2 framework and of the Marine Corps' C2 System of Systems (SoS). The MCEITS Software Integration Environment (SIE) will provide Marine Corps application owners and developers with a formal application development and application inclusion process. The SIE application inclusion process will provide documented, defined, repeatable processes that contain guidance for the successful management of the development, test, and integration of new and modified software services into the MCEITS Operations environment.

The MCEITS Operations environment will provide the common infrastructure necessary to allow the Marine Corps to achieve greater effectiveness and efficiency in the delivery and support of its IT service operations relating to data management, application support and information sharing. MCEITS Operations will coordinate and carry out proactive and reactive key activities relating to the support of all the data, applications and services in its environment including, utility computing, dedicated server provisioning, capacity utilization, operations scheduling, event and incident monitoring and resolution, problem management, system backup and restoration, and continuity of operations planning.

OPERATIONAL IMPACT

MCEITS will enable access to Marine Corps enterprise data, information, applications and services; it will also provide a collaborative information sharing environment across the business and warfighter domains. MCEITS will deliver an enterprise platform with a common hardware, software, and facilities infrastructure required to support managed hosting services, non-managed hosting services, or provisioned hosting services for Marine Corps application owners. MCEITS will deliver and manage its hosting services at agreed levels by providing Service Level Agreements (SLAs) to Marine Corps application owners. It will provide Marine Corps users with access to the core enterprise services necessary to enable rapid collaboration, efficient

discovery, and access to trusted data and information through an enterprise portal framework. It will provide users quick access to all hosted applications and core enterprise services by enabling single sign-on capabilities. MCEITS will deliver an agile IT infrastructure that can easily adapt to evolving Marine Corps software, hardware, data, services, and management requirements while providing an enterprise view into the IT environment that facilitates greater reuse of existing IT assets.

PROGRAM STATUS

MCEITS has completed Critical Design Review and is projected to meet Milestone C in third quarter, FY 2010 and FOC in FY 2012.

Warfighter Network Services–Tactical (WFNS-T)

Warfighter Network Services–Tactical (WFNS-T) is a portfolio of core baseband networking hardware and software configured as a Family of Services (FoS) that facilitates end-user services requirements of multiple security enclaves for Marine Air Ground Task Force (MAGTF) tactical communications networks. The Tactical Data Network (TDN) FoS includes the TDN Gateway, Data Distribution System–Modular (DDS-M) Core, DDS-M expansion modules, Information Assurance (IA) modules, and the Deployed Information Assurance Tool Suite.

- TDN Gateway (vehicular) augments existing MAGTF communications infrastructure by forming a robust digital communications backbone for MAGTF tactical data systems. The system consists of TDN Gateways and TDN Data Distribution Systems (DDS) interconnected with one another and their subscribers via a combination of common-user, terrestrial and celestial long-haul transmission systems, in conjunction with Local, Metropolitan and Wide Area Networks (WAN).
- TDN DDS-M provides the capability to create email, share files, transfer data, handle electronic messages and directory services, conduct transparent routing and switching of digital messages between local area networks, and perform circuit switching, network management, terminal emulation, and connectivity to Enhanced Position Location Reporting System (EPLRS) sub networks. It enables access to strategic, Supporting Establishment, joint, and other Service tactical data networks. DDS-M increases flexibility, survivability, and scalability via its modular design. It is designed to allow units to implement the system according to mission and operational requirements.
- The Joint Enhanced Core Communications System (JECCS) multiplexes Marine Corps Tri-Band satellite systems, Tropospheric Scatter Microwave Radio Terminal (AN/TRC-170), and Digital Wideband Transmission System (AN/MRC-142) into an integrated network. This integration enables access to Defense Information Services Network (DISN) telecommunication services, wide and local area networks (SIPR and NIPR networks) and physical network management services, messaging services, International Maritime Satellite, Global Broadcast System (GBS), and Ultra High Frequency-Tactical Satellite (UHF-TACSAT) capabilities.

Marine Corps Enterprise Network (MCEN)

The Marine Corps Enterprise Network (MCEN) consists of classified and unclassified networks and provides the Marine Corps network presence within the Global Information Grid. With a triad of equipment, people, and processes, the MCEN provides support from the deployed warfighter to Headquarters Marine Corps, allowing for reliable, secure communications across the strategic, operational, and tactical levels throughout the globe.

The Secure Internet Protocol Routing Network (SIPRNET) is the backbone of the classified Command and Control (C2) system and provides a highly secure and trusted network for warfighting operations, planning efforts, and sensitive business requirements. The Marine Corps continues to invest in and expand our SIPRNET capability and capacity to ensure network operations are conducted in a secure, effective manner.

The Marine Corps receives the majority of its garrison unclassified Non-Secure Internet Protocol Routing Network (NIPRNET) services through the Navy Marine Corps Intranet (NMCI). With the NMCI contract concluding on 30 September 2010, the Marine Corps is teaming with the Department of the Navy to determine the most effective and efficient means to keep critical unclassified services available as the Department transitions to the Next Generation Enterprise Network (NGEN).

To ensure an effective transition to NGEN, the Marine Corps has embarked on early transition activities that will assist this transition and guarantee uninterrupted unclassified network services. The results of these early activities will be incorporated into the Department's enterprise-wide NGEN program.

The Marine Corps Network Operations and Security Center (MCNOSC) provides the Marine Corps Network Operations (NetOps) and Computer Network Defense (CND) in support of the MCEN. The MCNOSC directs daily operations of all Marine Corps networks to ensure the networks run optimally, meet commanders' information processing requirements, and are in compliance with operational and security policies. NetOps is conducted through continuous network monitoring, centralized management, and decentralized control, and standardized implementation, operations, and support of MCEN services.

Aligned as the top layer of a defense-in-depth strategy, the MCNOSC manages CND through oversight and coordination with four Regional Network Operations and Security Centers (RNOSCs) and seven Marine Air Ground Task Force Information Technology Support Centers (MITSCs). The RNOSCs and MITSCs, embedded within Marine Corps commands around the globe, provide the regional and local commanders maximum network flexibility and responsiveness to operational requirements.

The Marine Corps IT workforce is critical in the operation, defense, and maintenance of a robust, secure network capability. The Marine Corps has gone to great lengths to hire, retain, and provide quality training to its Marines and civilians. Its Information Technology special-

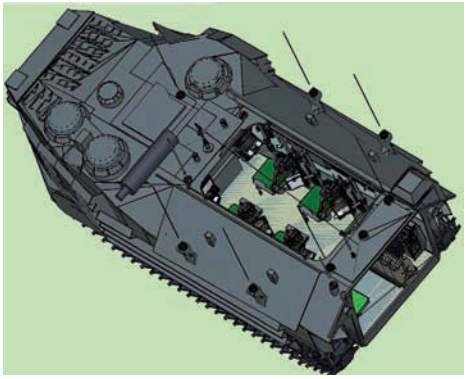
ists support enterprise and local activities, provide continuity of operations, and are a critical enabler of the MCEN.

Supporting the MCEN NetOps, CND, and IT workforce are processes that ensure effective use of resources and enhance a defense-in-depth strategy. Marine Corps processes and policies are designed to meet Federal, Department of Defense, and Department of Navy regulations and policy while simultaneously providing a flexible network that remains responsive to operational needs, retains the security measures that protect government information, and protect Marines, Sailors and their families personal information.

The rapid proliferation of new information technologies and their infusion into the MCEN ensures our networks meet commanders emerging requirements, remain efficient and cost effective, and enhance security in support of Marine Corps, joint, and coalition interoperability. The Marine Corps continues to examine promising technologies and operational techniques for use throughout the MCEN.

The MCEN provides the Marine Corps with the capability to communicate globally, at all echelons of command, and enhances commanders and staffs ability to conduct their daily operations. The Marine Corps investment in information technology, its associated workforce, and the processes that support the MCEN allow warfighting and business operations to be conducted over secure, reliable networks for the MAGTF and supporting establishment commanders.

The Assault Amphibious Vehicle–Command; Command and Control Upgrade Program (AAVC7 C2 Upgrade)



DESCRIPTION

The AAVC7 C2 Upgrade is focused on providing an improved Command and Control (C2) capability to the operating forces until the Expeditionary Fighting Vehicle reaches its scheduled Full Operational Capability (FOC) in 2025. The AAVC7 C2 Upgrade Program will include replacement of antiquated tactical radios with current fielded radio systems, integration of a UHF Line Of Sight (LOS) and UHF Satellite Communications (SATCOM) capability, replacement of the obsolete vehicle intercommunications system, integration of a Blue Force Situational Awareness (BFSA) capability, redesign of the staff workstations, and integration of a tactical data network capable of hosting applicable Marine Air Ground Task Force C2 applications — Advanced Field Artillery Tactical Data System (AFATDS) and the C2 Personal Computer (C2PC). Additionally, the C2 upgrade includes the installation of an auxiliary power unit that provides power to the C2 suite for extended periods without the need to idle the AAVC7 engine, in support of silent-watch operations.

OPERATIONAL IMPACT

The last C2 improvements to the AAVC7 were fielded in 1994. The AAVC7 C2 upgrade program will provide the supported infantry battalion/regimental staffs with an improved C2 capability to address the gap that exists during amphibious operations and extended operations ashore. Specific operational improvements are updated tactical radios, the addition of a UHF LOS-SATCOM capability, integration of a new BFSA capability, and the integration of a tactical data network capable of hosting AFATDS and C2PC. These additional capabilities will align the AAVC7 with the common network architecture used by today's ground forces at the battalion and regiment levels.

PROGRAM STATUS

The AAVC7 C2 Upgrade Program was designated an Acquisition Category IV (T) program during fourth quarter FY 2007. Preliminary Design Review was conducted during fourth quarter FY 2008 and Critical Design Review during second quarter FY 2009; Milestone C will be conducted second quarter FY 2010. Initial Operational Capability is planned for FY 2011 and FOC is planned for FY 2012.

Procurement Profile:	FY2010	FY2011
Quantity:	0	50

Developer/Manufacturer:
SPAWAR Systems Center Charleston, SC

Multi-Band Radio (MBR)

DESCRIPTION

The AN/PRC-117F MBR is a man-pack tactical radio that covers the entire 30 to 512 MHz frequency range and provides embedded communications security, satellite communications (SATCOM), and electronic counter-countermeasures capabilities. The AN/PRC-117F provides secure interoperability with Single Channel Ground and Airborne Radio System and a host of other tactical radios. The AN/PRC-117F can be configured for vehicular platforms using the AN/VRC-103(V)2 installation kit. The hardware can be reconfigured and software reprogrammed to optimize performance and add capabilities without opening the radio. The AN/PRC-117F and AN/VRC-103(V)2 are used for data/voice transfer to pass critical tactical, as well as, routine administrative and logistics information in both the data and voice modes utilizing Line of Sight (LOS), Very High Frequency, and Ultra-High Frequency (UHF) spectrums and Beyond LOS, using UHF satellite communications. Additionally, these radios will provide the Marine Air Ground Task Force (MAGTF) reliable long-haul reconnaissance and tactical air request communications. The manpack radio and its vehicular mount are employed in at the division, regiment, and battalion as well as other elements of the MAGTF. The AN/PRC-117F is the replacement radio for the SINCGARS, AN/PSC-5, and AN/PRC-119 radios.

OPERATIONAL IMPACT

The AN/PRC-117F and the AN/VRC-103(V)2 provide the Marine with the ability to significantly reduce the communications footprint by providing the ability to effectively cover the previous communications spectrum with a single system, compared to the legacy capability that required at least two distinct radios. Additionally, the AN/PRC-117F and AN/VRC-103(V)2 add significant data capabilities within those spectrums where in some cases they did not exist. This increased capability better facilitates the distribution of Command and Control across the battlefield in general and at lower echelon in particular.

PROGRAM STATUS

The AN/PRC-117F is 85 percent fielded throughout the Marine Corps and is predominately in a sustainment mode. The Approved Acquisition Objective (AAO) is 10,078 units. Software upgrades and Engineering Change Proposals (ECP) are planned for future technological insertions.

The VRC-103(V)2 is 55 percent fielded throughout the Marine Corps. Installation kits to replace those diverted for use within Mine Resistant Ambush Protected vehicles are being acquired. The AAO is 3118. The VRC-103(V)2 is the replacement platform for vehicular mounted SINCGARS, AN/PSC-5, and AN/PRC-119 radios. Software upgrades and ECP are planned for future technological insertions.

Procurement Profile:	FY 2010	FY 2011
Quantity:	0	0

Developer/Manufacturer:
Harris Corporation, Rochester, NY

High Frequency Radio (HFR)

DESCRIPTION

The AN/PRC-150(C) manpack High Frequency (HF) radio provides half-duplex HF and Very High Frequency (VHF) tactical radio communications and is the replacement for the AN/PRC-104 radio. It provides voice or data (using a modem) through single sideband modulation. The AN/PRC-150(C)'s 20 watt power output is provided by either the standard family of rechargeable or non-rechargeable military batteries or by external electrical power. Transmission security is provided through the AN/PRC-150(C)'s embedded Type 1 encryption. It can be used for either data/voice transfer to pass critical tactical as well as routine administrative and logistics information using the full HF spectrum or limited portions of the VHF spectrum. The AN/MRC-148 is the replacement radio for the AN/MRC-138 radio, and the AN/VRC-104(V)5 is the replacement radio for the previously mounted AN/PRC-104s systems.

OPERATIONAL IMPACT

The AN/PRC-150(C) provides the Marine with the ability to significantly reduce the communications footprint by providing the ability to effectively cover the previous communications spectrum with a single system, compared to the legacy capability that required at least two distinct radios. Additionally, the AN/PRC-150(C) adds significant increased data capabilities within those spectrums. This increased capability better facilitates long-haul distribution of Command and Control across the battlefield.

PROGRAM STATUS

The AN/PRC-150(C) is 87 percent fielded throughout the Marine Corps and is in predominately a sustainment mode. The AAO is 5,315 units.

The AN/TRC-209 is 60 percent fielded throughout the Marine Corps. All assets have been purchased for the active forces, and the remaining units to be fielded are in the Reserves. However, the AN/TRC-209 is considered to be in a predominately sustainment mode. The AAO is 873 units.

The AN/MRC-148 is 87 percent fielded throughout the Marine Corps and is predominately in a sustainment mode. Fielding of any remaining quantities might be delayed until assets diverted to MRAP are replaced. The AAO is 1,385 units.

The AN/VRC-104(V)5 is only marginally fielded to date due to a lack of identification of intend target platforms. All assets have been acquired, but await target identification. The AAO is 755 units. Software upgrades and Engineering Change Proposals are planned for future technological insertions for all of these systems.

Procurement Profile:	FY 2010	FY 2011
Quantity:	0	0

Developer/Manufacturer:
Harris Corporation, Rochester, NY

PART 3:

INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE

INTRODUCTION

Marine Corps Intelligence provides mission-essential support to overseas operations in Iraq and Afghanistan, while striving toward a systematic approach to integrate intelligence disciplines and staff functions on the battlefield. To ensure future success, intelligence must be optimized to provide predictive analysis, understand complexity, and exploit the potential of new technologies. It will need to do this while being responsive to the more sophisticated intelligence requirements that the emerging Enhanced Marine Air Ground Task Force (MAGTF) Operations (EMO) and the hybrid threat environment demand. Most fundamentally:

> The mission of Marine Corps Intelligence is to form an all-source Intelligence Surveillance Reconnaissance enterprise optimized by educated analytical judgment; focused on MAGTF expeditionary operations at the tactical and operational levels. This enterprise must be flexible, agile, anticipatory and fully integrated into the national intelligence community.

Meeting this challenge necessitates a variety of material and non-material solutions within the Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise (MCISR-E). MCISR-E does not change existing command relationships or reduce the operational authority of commanders. Instead, it merges policies on intelligence data management, intelligence systems architecture and human intelligence and signals intelligence tasking authorities with an operating concept that achieves synergy through integrating existing functions and capabilities in order to better support all echelons of the MAGTF.

The purpose of this mission is to *deliver fused, all-source, actionable intelligence or knowledge at the point of decision*. All echelons of the force, from squad leader to Marine Expeditionary Force commander, must have timely access to the collective knowledge, data, resources and expertise of the enterprise.

Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise (MCISR-E)

The production of Marine Corps Intelligence is evolving from an assortment of partially connected units and intelligence systems to an "enterprise" solution in which all Intelligence, Surveillance, and Reconnaissance (ISR) functions and traditional and non-traditional ISR sources are leveraged. Thus, MCISR-E expands the inherent ISR capacity of units at all echelons across the force by providing better integration of intelligence information to address complex collection environments through a flexible organizational construct. Meanwhile, leaders and units will contribute to a culture of institutional data and information collaboration and sharing while embracing operational flexibility through adaptive responses in operating concepts, doctrine, training, and material solutions. When fully implemented, the MCISR-E will provide each component element with access to the shared knowledge, data, resources, and expertise from the entire enterprise. Enterprise standards will also be compatible and consistent with the Marine Air Ground Task Force (MAGTF) Command and Control (C2) framework, facilitating the use of operational reporting and non-traditional ISR data by elements of the MCISR-E and providing for timely dissemination and sharing of relevant intelligence with Marine leaders at every echelon. Through our enterprise capabilities, Marine Corps ISR also leverages national, joint, and combat support agency capabilities to address MAGTF requirements, while serving as a contributing partner to those agencies.

MCISR-E includes all Marine Corps ISR assets, and functions covering the entire range of people, doctrine, policy, organizations, training, education, equipment, and facilities. The equipment acquisition strategy initially focuses on the intelligence processing, exploitation, analysis, and production systems within the Distributed Common Ground System–Marine Corps (DCGS-MC). Other functions of the MCISR-E include persistent ISR and actionable intelligence. Persistent ISR provides the means for tasking, direction, and collection, while actionable intelligence addresses the systems associated with dissemination, use, and feedback of intelligence. Through persistent ISR, the Marine Corps will seek to build a holistic collection strategy that includes joint and national ISR assets as well as a variety of organic battlefield sensors capable of providing non-traditional ISR support. Within the enterprise construct, the Marine Corps are also developing capabilities to enable tactical units to collect, report, receive, and use intelligence and combat information. This includes company-level intelligence cells focused on gathering the information, providing an initial assessment for the company-specific operational area, and feeding data into intel systems for higher-level analysis. An additional example is the initiation of the Counterintelligence/Human Intelligence (CI/HUMINT) enterprise, which includes developing tactical questioners and tactical debriefers.

The organizational relationships, resources, and systems architecture of the

MCISR-E provides each element with extensive access to the broad capabilities of the enterprise, the means to contribute its data and analysis to the enterprise, and the ability to collaborate across the enterprise. By providing common access to situational awareness, understanding and predictive analysis of the threat and relevant aspects of the operating environment, this enterprise enables and enhances decision-making by leaders at all echelons. The MCISR-E provides an adaptive, flexible ISR framework supporting the intelligence requirements of a multi-capable MAGTF as it executes expeditionary operations against hybrid threats in a complex environment. MCISR-E will be organized into three distinct nodes:

- **Fixed** – Primary reachback and data storage site for expeditionary intelligence support. The fixed Site will serve as the Marine Corps' primary connection to national agencies and the data exposure point for all ISR data to the Intelligence Community. There will be one MCISR-E Fixed Site managed by the Marine Corps Intelligence Activity.
- **Garrison** – Intelligence planning, analysis, and production in collaboration with expeditionary forces. These reachback sites are located at each of the Marine Expeditionary Forces and will be capable of supporting forward operations from garrison, or deploying to augment tactical, expeditionary nodes.
- **Expeditionary** – Deployable, tailorable and aligned to the mission. These nodes operate in theater with joint forward-deployed sensors and warfighters and provide maneuver units direct-support teams for intelligence collection, analysis, production and use.

Distributed Common Ground System–Marine Corps (DCGS-MC)

DESCRIPTION

DCGS-MC, in compliance with the Department of Defense DCGS Family of Systems concept, is a service-level effort to migrate select Marine Corps Intelligence, Surveillance, and Reconnaissance (ISR) processing and exploitation capabilities into a single, integrated, net-centric baseline. As the processing, exploitation, analysis, and production component of the Marine Corps ISR Enterprise, DCGS-MC will comprise functional capability sets that support Marine intelligence analysts across the Marine Air Ground Task Force by making organic and external all-source ISR data more visible, accessible, and understandable.

The DCGS-MC concept originated with the DCGS Mission Area Initial Capabilities Document Joint Requirements Oversight Council (JROC) Memorandum 001-03, dated 6 January 2003, which established the overarching requirements for a collection of net-centric-capable systems that would contribute to joint and combined warfighter needs for ISR support. The JROC directed each service to pursue a coordinated developmental path based on the implementation of common enterprise standards and services consistent with the Department of Defense's net-centric vision. The DCGS Integration Backbone (DIB) is the basic building block for interoperability between the Services' DCGS programs. The DCGS DIB is currently managed by a separately chartered DIB Management Office that directs day-to-day developmental efforts in coordination with the Army, Navy, Marine Corps, and Special Operations Command. The Office of the Under Secretary of Defense (Intelligence) oversees the various DCGS program offices.

OPERATIONAL IMPACT

DCGS-MC will migrate selected legacy ISR processing and exploitation capabilities, resulting in increased unit-level and enterprise-level capacity for injesting sensor data, streamlined production of intelligence information, and enhanced management of finished intelligence products.

PROGRAM STATUS

The DCGS-MC program is projected to achieve Milestone B during third quarter FY 2010 and proceed as an Acquisition Category I program. The program entered the technology development phase in November 2008 and will fully leverage the developmental efforts of its sister services' DCGS programs, as their developmental efforts are fully underway. The program acquisition strategy is based on an incremental development path optimized to rapidly introduce government and commercial technologies, enterprise standards, and modular hardware components in order to minimize costs and program risk. The program is subsuming the Tactical Exploitation Group and Topographic Production Capability programs during FY 2010 as part of the Increment I development. DCGS-MC Increment II will assume Tier I Intelligence Analysis System functionality.