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A MESSAGE FROM
THE COMMANDANT
A MESSAGE FROM THE COMMANDANT OF THE MARINE CORPS

This is a landmark year for the Marine Corps. By the end of 2014, we will withdraw our Marines from Helmand Province, reset our institution and reawaken the soul of our Corps. This 2014 edition of Concepts and Programs describes the strategic direction, operational concepts and the critical modernization programs that enable our role as the nation’s crisis response force.

As our nation concludes the longest conflict in our history, the United States will remain forward engaged, ready to respond at a moment’s notice. Our coalition partners are paying close attention to the direction of our national strategy and force design, and our adversaries are seeking opportunities to exploit during this period of transition and uncertainty. We will stand firm, countering those that would derail peace and stability, while providing assurance to our overseas friends and allies.

The fiscal challenges of reduced budgets will require our Corps to exercise discipline. Marines pride themselves on doing more with less, and we will need to economize and seek efficiencies whenever possible. The future will bring increasing instability and conflict, and we must be ready to face these threats – readiness is essential. The high operational tempo experienced over the last decade will continue as we draw down our force. Our readiness resides not only in our training and equipment, but most importantly in the commitment of the individual Marine.

Concepts and Programs 2014 will provide you a better understanding of your United States Marine Corps. This guide serves as a concise and comprehensive reference of all our major programs and operational concepts for the future. I encourage you to read and explore who we are and where we are headed. On behalf of Marines forward deployed all around the world, we remain...

Semper Fidelis,

JAMES F. AMOS
General, U.S. Marine Corps
“Expeditionary forces are power projection forces, certainly, but they are much more. Power projection is part of an expeditionary force, included in the “sticker price.” An expeditionary force is like the expeditionary warriors that must it. They have an expeditionary state of mind, they are comfortable with uncertainty and capable of handling adversity; they have the ability to adapt ‘out there’ and to improvise; they have the ability to start from scratch and make up solutions as they go; they have the ability to do it with less ... to drive a nail with a shovel if they don’t have a hammer.”

- General Charles E. Wilhelm, USMC
CHAPTER 1: CONCEPTS

FOREWORD

The past decade makes clear that responsiveness and versatility – the institutional trademarks of the Marine Corps – are always in demand. Even as we took the fight to the enemy in Iraq and Afghanistan, U.S. Marines were the “first responders” to tsunamis in the Indian Ocean and Japan, earthquakes in Pakistan and Haiti, emergency action in South Sudan, and the typhoon in the Philippines. As the Nation’s Expeditionary Force in Readiness, we are and will continue to be heavily engaged around the world.

While meeting current commitments and preserving readiness, the Marine Corps must reconfigure and refit to meet coming challenges. The future evolving and complex security environment will only increase the demands on the Marine Corps. The law requires and our heritage demands that we maintain a force that is naval in character and capable of conducting amphibious operations. The Geographic Combatant Commanders need us to give them the three-fold advantages of forward presence: the recurring dividends of “soft power” applied with a richer military dimension; the deterrent effect of immediate, credible and effective actions to thwart potential adversaries; and the expanded operational reach and tactical flexibility to defeat foes throughout the littorals. The American people will surely continue to expect – and the world will count on – Marines to be the leading edge of humanitarian relief and disaster recovery operations.

Expeditionary Force 21 is our vision for designing and developing the force that will continue to fulfill these responsibilities. But it is more than a vision – it is also an actionable plan and a disciplined process to shape and guide our capability and capacity decisions while respecting our country’s very real need to maintain budgetary discipline. True to our expeditionary ethos, we will work with a clear-eyed view of what will be asked of us and seek only what we believe is necessary. Nimble by organizational design and adaptive by culture, we will rely on open-mindedness and creativity and make the best of what we have. Through Expeditionary Force 21 we will chart a course over the next 10 years to field a Marine Corps that will be: the right force in the right place at the right time.

Semper Fidelis,

James E. Amos
General, U.S. Marine Corps
Commandant of the Marine Corps
CHAPTER 1: CONCEPTS

Expeditionary Force 21 Attributes

Expeditionary Force In “Readiness”
- 1/3 of operating forces deployed forward for deterrence and proximity to crises
- Self-sustaining under austere conditions

Middleweight Force
- Light enough for rapid response
- Heavy enough to prevail in the littorals

Modern Force
- Preserves quantitative edge over opponents
- Exploits innovative concepts and approaches

Integrated Combined Arms Force
- Applies all aspects of joint combat power
- Extends power of naval forces

Integrated Naval Force
- Command and control exploits the sea as maneuver space
- Leverages traditional and innovative operating concepts

Force Biased for Action
- Poised for rapid crisis response – no tiered readiness
- Readily Deployable-Employable-Sustainable forces

Leading Edge of Joint Force
- Regionally oriented MEFs and MEBs
- Small fly-in command element capable of transitioning to a joint warfighting headquarters

Forcible Entry In Depth
- Scalable to crisis, contingency or forcible entry
- Capable of projecting two MEBs from the sea
- Seizes and holds for follow-on joint forces
Expeditionary Force 21: Shaping the Future Marine Corps

This Marine Corps Capstone Concept is our vision for the next 10 years and our plan for developing the force to meet the threats and challenges posed by the changing operational environment. Expeditionary Force 21 builds on the conceptual and doctrinal foundation of Operational Maneuver From The Sea, Ship-To-Objective Maneuver, Seabasing and Marine Corps Doctrinal Publication 1-0 Operations. The purpose is to combine the value we provide today with the promise of what we can achieve tomorrow. The goal is a Marine Corps that is:

**Optimized to be expeditionary...**

- Ready to deploy immediately and reinforce quickly
- Comfortable in the chaos and uncertainty of crisis
- Able to adapt rapidly to changing conditions
- Operates effectively in any clime and place
- Exploits the advantages of being fast, austere and lethal

... to respond to crises

Expeditionary Force 21 codifies the essence of our expeditionary ethos: fast, austere, and lethal. It envisions a force that can achieve success in those missions where action delayed is action denied. It recognizes the need for living, operating, sustaining and maintaining people and equipment in spartan conditions where large support bases are unacceptable or infeasible. It promotes the economical employment of forces of almost any size and configuration with capabilities appropriately matched to the mission. It acknowledges the value of respecting and protecting people caught in the middle of a disaster or conflict, stepping lightly in all areas of support to minimize potential adverse cultural and political impact.

To Marines, “being expeditionary” is a long-standing commitment to speed of action. Adaptability on the go has been deliberately cultivated by Marine leaders for generations and will be the linchpin of our efforts to meet the coming challenges. Our expeditionary mindset will influence every aspect of our capability development and capacity decisions.
Expeditionary Force 21 is not a plan in search of a blank check to “reinvent” the Marine Corps. It is a vision to meet the increasing demand for the responsiveness and versatility that are our operational trademarks. Expeditionary Force 21 exploits the Marine Corps’ signature ability to move rapidly, operate immediately, adapt to changing conditions and succeed in austere environments. This expeditionary mindset will influence every aspect of our capability development and capacity decisions. Expeditionary Force 21 will not change what Marines do; but how we do it.
Expeditionary Force 21 is an aspirational, yet measured, vision of naval expeditionary capabilities that we are exploiting today and enhancing for tomorrow. We can bring about needed change by being open-minded to new ideas and carrying them out by simple force of decision and diligence in execution. Other changes pose more complex challenges that can only be overcome through advances in science and technology. In those cases, our capability developers will be exacting in their comparisons of alternatives to identify and pursue the most cost-effective combination of solutions. We are currently working across four lines of effort:

1. Refining Our Organization. We organize into Marine Air Ground Task Forces (MAGTFs) for employment. Each MAGTF includes command, aviation, ground and logistics elements. The largest MAGTF is the Marine Expeditionary Force (MEFs). We have two MEFs able to exercise command and control of a joint task force. They remain our focal point for sustained warfighting operations. Expeditionary Force 21 focuses on three Marine Expeditionary Brigades (MEBs) capable across a range of operations from security cooperation to disaster response to forcible entry. The MEBs will also be able to command or integrate with joint task forces. We also deploy Marine Expeditionary Units (MEUs) into key regions for security cooperation and crisis response. Additionally, we employ special purpose or crisis response MAGTFs to meet specific needs such as persistent partner building or embassy reinforcement.

2. Adjusting Our Posture. We will maintain one-third of our operating forces forward and flexibly distribute them over a wider area to deter adversaries and effectively respond to emergencies and crises. We are orienting our forces to specific regions and positioning them to conduct sustained security cooperation activities. We will continue to sustain alert contingency forces that allow us to rapidly scale for action.
3. Increased Naval Integration. We are exercising the concept of forward “compositing” — forming up our reinforcing forces at or near the scene of a crisis. We remain dedicated to exploring holistic concepts of operation for launching assaults from a combination of amphibious ships reinforced by seabeam platforms. We will strengthen our partnership with the Navy by integrating our operational staffs and institutionalizing our maturing concepts of employment.

4. Enhancing Littoral Maneuver. Expeditionary Force 21 envisions an assault mobility portfolio that permits us to execute future amphibious operations at the times and places of our choosing. To complement the operational reach of our vertical connectors (helicopters and tilt-rotors), we are exploring a new generation of surface connectors (boats, self-propelled amphibious vehicles, and landing craft) that enables us to maneuver through the littorals to positions of advantage in contested environments, employ dispersed forces, and exploit entry points of opportunity to project on-shore the full combined arms power of the MAGTF.
As stated in the Joint Operational Access Concept, the U.S., as a global power with global interests, has an enduring requirement to project power and influence. The joint force will meet this requirement and its associated challenges through increased cross-domain synergy. The Marine Corps intends to contribute to this synergy as a forward and responsive naval force. The next 10 years promise to be a new and challenging venture into the uncertain as we Marines reorganize, refit, redefine our operational capabilities, and strengthen our naval roots. Some goals within Expeditionary Force 21 will be easily met; others we must strive hard to achieve. Given the fiscal climate, we need to review capability development to minimize duplication and uncoordinated efforts. It is essential that we fully integrate naval capabilities and scrutinize everything from concept and doctrine to material requirements and solutions.

The objective is to ensure a forward and ready force postured for immediate crisis response and offers the ability to composite with forward forces to provide additional capability as needed to satisfy Geographic Combatant Commander requirements. It is critical that we have the ability to prosecute combat operations throughout the littorals (land-sea-air) as an integrated naval force. By leveraging naval capabilities, developing the techniques for rapidly deploying and integrating forces and staffs, and developing required future capabilities, the Navy/Marine Corps team will be well positioned to provide the Geographic Combatant Commanders with ready forces in readiness to respond to crises.
Expeditionary Force 21 expands on our legacy of crisis response and expeditionary readiness to meet tomorrow’s uncertain challenges. Our goals are designed to build the right force in the right place at the right time, today and in the next 10 years. While some capabilities may require new equipment to achieve our goals; we must remain committed to working within fiscal and force structure limits. Each adjustment to capability must have an eye toward improving our ability to **deploy**, **employ**, and **sustain** as an expeditionary force. Through Expeditionary Force 21 we will focus on crisis response; increase our emphasis on missions ranging from theater security cooperation through forcible entry; enhance our ability to operate from the sea and take advantage of all platforms and means; and as a result, provide the *right force in the right place at the right time.*
CHAPTER 1: CONCEPTS

**Integrated Naval Capabilities**

**LMSR**
Military Sealift Command’s (MSC) Large, Medium Speed, Roll-On/Roll-Off ship (LMSR) program significantly expands the nation’s sealift capability as a prime mover of military equipment. The ships carry vehicles and equipment to support humanitarian missions, as well as combat missions.

**Mobile Landing Platform**
Leverages float-on/float-off technology and has raised vehicle platform, sideport ramp, mooring fenders and LCAC lanes. Utility of “Interoperable Pier in the Ocean” spans the Range of Military Operations.

**JHSV**
Provides high speed transportation for over 300 Marines and 20,000 sq ft of MAGTF equipment.

**Ship to Shore Connector (SSC)**
Provides modernized landing craft over-the-beach capability.

**T-AKE**
Offers selective access and off-load of unitized supplies for prepositioning MEB and other MAGTFs operating in the seabase or ashore.
CHAPTER 1: CONCEPTS

The flexibility that comes from compositing forces from forward-based and forward-deploying amphibious and prepositioning platforms is the key to rapid, effective crisis response.
“We are, by our nature, ‘expeditionary.’ This means several things. It means a high state of readiness; we can go at a moment’s notice. It means our organization, our equipment, our structure are designed to allow us to deploy very efficiently…It’s a mind-set, too, about being ready to go, about being ready to be deployed, and about flexibility. We can easily and quickly move from fighting to humanitarian operations.”

- General Tony Zinni, USMC

Battle Ready, 2004

Photos Courtesy of Headquarters, U.S. Marine Corps
CHAPTER 2: ORGANIZATION

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

Our operating forces are a crisis response expeditionary force, task organized, and able to conduct operations across the entire spectrum of military operations. We maintain a constant state of readiness through an organizational structure that enables rapid, global response by air, land, and sea. Fundamentally, our Corps is a “middleweight force” that fills the void in our Nation’s defense structure between light Special Operations Forces (SOFs) and heavier conventional units. Our Corps provides scalable and adaptive forces, which complements both lighter and heavier forces.

Over the last several years, while we have become leaner in size, the Active Component (AC) Marines continue to reflect a U.S. Marine Corps, which is ready to meet the demands of global commitments and combat operations. Within this time of restructuring, we continue to maintain balanced, combined arms capabilities, which are adapted to the new demands of regional conflicts. We also continue to develop agile and capable forces to meet future hybrid threats. The same will be true of our Corps as it adjusts to post-Iraq and post-Afghanistan environments, which will include a capabilities based force, and adapting to the complex environment, while retaining the flexibility and agility to respond to future needs.

The Organization section outlines our combined arms structure and highlights the unique capabilities that Marines bring to the fight.
CHAPTER 2: ORGANIZATION

MARINE AIR GROUND TASK FORCE (MAGTF)

The MAGTF is our Corps’ principal organizational construct for conducting missions across the Range of Military Operations (ROMOs). The MAGTFs provide Combatant Commanders (CCDRs) with scalable, versatile expeditionary forces able to: assure allies; deter potential adversaries; provide persistent United States presence with little or no footprint ashore; and respond to a broad range of contingency, crisis, and conflict situations. We are a balanced combined arms force package containing command, ground, aviation, and logistics elements. A single commander leads and coordinates this combined arms team through all phases of deployment and employment. Our MAGTF teams live and train together, further increasing their cohesion and fighting power.
MULTI-MISSION CAPABLE MARINE AIR GROUND TASK FORCES (MAGTF)

Tailored to meet CCDRs’ requirements, the MAGTFs operate as an integrated force in the physical domains of air, land, maritime, and space while also operating in the cyberspace domain of the information environment. The naval character of the MAGTFs enhances their global mobility, lethality, and staying power.

Embarked aboard amphibious ships or deployed using other means, multi-mission capable MAGTFs provide U.S. civilian and military leaders with the ability to conduct the following activities:

- move forces into crisis areas without revealing their exact destinations or intentions;
- provide continuous presence in international waters;
- commence execution of a mission within 6 to 48 hours of receiving a warning order;
- provide immediate national response in support of humanitarian and natural disaster relief operations;
- provide credible and over-the-horizon crisis response capability;
- support diplomatic processes for peaceful crisis resolution before employing immediate response combat forces;
- respond to crises through the measured projection of combat power ashore — day or night and under all weather conditions;
- introduce additional Marine forces sequentially into a theater of operations;
- operate independent of established airfields, basing agreements, and overflight rights;
- conduct combat operations ashore, by relying on MAGTF-organic combat service support;
- conduct theater security cooperation (SC) to build partner capacity (BPC);
- enable the introduction of follow on forces by securing staging areas ashore or bypassing littoral defenses by going further inland;
- operate in rural and urban environments, and during chemical, biological, radiological, and nuclear situations;
- withdraw rapidly at the conclusion of operations;
- participate fully in the joint planning process, successfully integrate the MAGTF operations with those of the joint force, and enable larger joint operations;
- integrate with and complement the efforts of SOFs;
- support service, joint, and national efforts to maintain freedom of action in cyberspace.

MARINE AIR GROUND TASK FORCE (MAGTF) COMPOSITION

Our Corps’ task is to organize for combat in accordance with our statutory mandate to provide combined arms forces, including aviation, by forming integrated combined arms MAGTFs. As the name indicates, the organization of the MAGTFs is specific to the tasks-at-hand and is mission-tailored for rapid deployment by air and/or sea. No matter what their mission or mode of deployment may be, the MAGTFs are comprised of four deployable elements supported from our bases and stations.

COMMAND ELEMENT (CE)

The CE contains the MAGTF headquarters and other units that provide operations, intelligence, logistics, 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, 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. The GCE includes infantry, artillery, reconnaissance, armor, light armor, assault amphibian, engineer, and other forces as needed. The GCE can vary in size and composition, and its makeup can range from a light, air-transportable reinforced company to a relatively heavy, mechanized unit that includes one or more Marine divisions, or any other type of ground combat unit that meets the demands of a particular mission.

**AVIATION COMBAT ELEMENT (ACE)**

The ACE conducts offensive, defensive, and all other air operations to support the MAGTF mission. The ACE is task organized to perform the six functions of Marine aviation required to support the MAGTF mission — assault support, anti-air warfare, offensive air support, electronic warfare (EW), control of aircraft and missiles, and aerial reconnaissance — and may also include aviation support to Humanitarian Assistance/Disaster Relief (HA/DR) operations. The ACE forms 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 Aircraft Wings (MAWs) consisting of multiple fixed, tilt-rotor, and rotary wing aircraft of several types and capabilities.

**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. LCEs form around a combat logistics headquarters, and may vary in size and composition from a support detachment to, one or more Marine Logistics Groups (MLGs).
TYPES OF MARINE AIR GROUND TASK FORCES (MAGTFs)

There are four types of MAGTFs:

- Marine Expeditionary Force (MEF)
- Marine Expeditionary Brigade (MEB)
- Marine Expeditionary Unit (MEU)
- Special Purpose MAGTF (SPMAGTF)

MARINE EXPEDITIONARY FORCE (MEF)

The MEF is our Corps’ principal warfighting organization during larger crises or contingencies. Normally commanded by a lieutenant general, the MEF can range in size from one division and aircraft wing to multiple divisions and aircraft 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 CE is capable of performing as a Joint Task Force (JTF) headquarters. MEFs often deploy in echelon and designate the lead element as the MEF (Forward).

MEFs are the primary “standing MAGTFs” in peacetime and wartime. Our Corps is organized with three standing MEFs, each with a Marine division, aircraft wing, and logistics group. The I Marine Expeditionary Force (I MEF) is located at bases in California and Arizona. The II Marine Expeditionary Force (II MEF) is located at bases in North Carolina and South Carolina. Lastly, the III Marine Expeditionary Force (III MEF) is located at bases in Okinawa, main land Japan, and Hawaii. In addition, we also have plans for rotational forces in Guam and Australia.

MARINE EXPEDITIONARY BRIGADE (MEB)

The MEB, normally commanded by a brigadier general, is a scalable MAGTF that ranges from a general officer-led staff up to a force of 20,000 Marines. The scalable MEB is capable of full spectrum operations, and self-sustainment for 30 days. The three standing MEB CEs are the 1st MEB, which is embedded in the I MEF staff, while 2d and 3d MEBs are stand-alone organizations. The standing MEB CEs do not have permanently assigned forces, instead they maintain habitual relationships with associated major subordinate elements through planning and exercises. When mobilized, a MEB is comprised of a CE, GCE, ACE, and LCE. These elements are comprised of a reinforced infantry regiment, a composite Marine Aircraft Group, and a Task Organized Combat Logistics Regiment.

MEBs provide CCDRs with a scalable warfighting capability across the ROMO and can conduct amphibious assaults and operations ashore in any geographic environment. As an expeditionary force, a MEB is capable of rapid deployment and employment via amphibious shipping, strategic air- and sealift, geographic or MPF assets, or any combination of these. A MEB can operate independently, serve as the forward echelon of a MEF, or act as a JTF headquarters with augmentation. The Deputy Commandant (DC) for Concept Development & Integration (DC, CD&I) is conducting a detailed assessment of future MEB structure requirements. The assessment’s results will provide a guide for the future size, composition, and capabilities of this type of MAGTF.

MARINE EXPEDITIONARY UNIT (MEU)

Forward deployed MEUs aboard Amphibious Readiness Groups (ARGs) operate continuously in the Geographic Combatant Commander’s (GCCDR) areas of responsibility (AOR). These units provide the President and the GCCDRs with a forward deployed and flexible, sea-based MAGTF. These units are capable of conducting amphibious operations to respond to crisis, conduct limited contingency operations, introduce follow on forces, and support designated SOF. In effect, they provide an afloat “on-station” force capable of responding to any situation that may arise. MEUs are characterized by: their sea-based forward presence; expeditionary nature; and ability to plan for and respond to: crises; combined arms integration; and interoperability with joint, combined, and SOFs. The MEU’s composition is informed by Marine Corps order 3120.9C, Policy for MEUs.

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A colonel commands the MEU and is able to deploy with 15 days of accompanying supplies. Prior to deployment, a MEU undergoes an intensive six-month training program, focusing on its Mission-Essential Task (MET) List and interoperability with Joint and Special Operations Forces. The training culminates with a thorough evaluation and certification known as “Operationally Ready to Deploy.” The organic capabilities of the MEU are as follows:

- amphibious operations
  - amphibious assault
  - amphibious raid
- small boat raid (specific to the 31st MEU)
- maritime interception operations
- advance force operations
- expeditionary support to other operations/crisis response and limited-contingency operations
- non-combatant evacuation operations
- humanitarian assistance
- stability operations
- tactical recovery of aircraft and personnel
- joint and combined operations
- aviation operations from expeditionary sites
- theater SC activities
- airfield and port seizures
- theater SC operations to build the capacity of partner nations and increase interoperability

The MEF commander exercises full command of his organic MEU prior to deployment. The Geographic Combatant Command (GCC) delineates MEU command relationships once embarked. The MEU’s assignments are normally operational control (OPCON) to the naval service component. However, during crisis response and contingency operations GCCs may shift OPCON of the MEU as articulated in 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 OPCON of their respective forces. If the Joint Force Commander organizes along functional lines, functional component commanders will normally exercise OPCON over 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. They can be organized, trained, and equipped with Marine forces to conduct a wide variety of expeditionary operations ranging from peacetime missions, to training exercises, and responses to contingencies and crises. SPMAGTFs can support theater campaign plans, security cooperation (SC), and civil-military operations requirements.

SPMAGTFs have capability, mobility, and sustainability similar to mission requirements in order to increase interoperability with, and provide training to, less developed military forces. SPMAGTF tasks include building and supporting partner nation security capacity efforts in specific regional areas. The SPMAGTF provides the Combatant Commander (CCDR) with a flexible expeditionary force employment option that further augments the traditional capabilities provided by our Corps. The Marine component service headquarters designates SPMAGTFs in response to the CCDR requirements.
The Nation’s MAGTFs thus provide a continuum of capabilities to support naval, CCDR, and national requirements. These MAGTFs, joined by special-purpose forces and unique Marine forces, enable the Corps to address the full range of conventional, unconventional, and irregular/hybrid threats as well as other taskings as the President might require.

SECURITY COOPERATION MAGTF

The Marine Corps Security Cooperation Group (MCSCG) achieved full operational capability in October 2012 as a unique command that consolidates all facets of SC to include advisor skills, training and assessment expertise, and security assistance program management. A Marine colonel commands MCSCG and has 203 personnel organized in to the following: headquarters staff; instructor group; and regionally aligned coordination, liaison, and assessment teams (CLATs). The assigned command is a subordinate element of Marine Forces Command (MARFORCOM).

The MCSCG’s mission is to execute and enable security cooperation programs, training, planning, and activities in order to ensure unity of effort in support of U.S. Marine Corps and Regional Marine Component Command (MARFOR) objectives and coordination with operating forces and the MAGTFs. The accomplishment of U.S. Marine Corps and Regional Marine Force (MARFOR) Component Command SC objectives include: assessments, planning support, SC related education and training, and advisory support. MCSCG achieves this by concentrating on three SC focus areas: build relationships, facilitate access, and BPC. MCSCG accomplishes its mission through six principal lines of effort in order to provide integrated security cooperation solutions:

1. Security Assistance/International Programs: Coordinate and manage Security Assistance education and training programs
2. Foreign Security Force – Capability-Based Assessments: Conduct detailed and comprehensive assessments that inform the SC Planning Cycle
3. Security Cooperation Engagement Plans: Develop long-term and enduring Security Cooperation Engagement Plans with our partners and provide deployable planning support elements to the regional MARFORs
4. Education: Provide resident and deployable instruction to our Corps’ personnel assigned to manage SC activities
5. Training: Provide SC training to Marines tasked to conduct SC missions
6. Unity of Effort: SC coordination across U.S. Marine Corps and Maritime services

UNIQUE COMBATANT COMMANDER (CCDR) SUPPORT

A CCDR or subordinate joint force commander might also require Marine forces that do not have all elements of a MAGTF – these forces do not have a specific MAGTF designation. Examples include the Black Sea Rotational Force and Marine Rotational Force-Darwin, which participate in SC to build military capacity, provide regional stability, and develop lasting partnerships with nations in the region.

In addition, as we evaluate potential hybrid threats, we believe there will be a requirement for smaller combined arms task forces. These task forces will operate in environments where greater capabilities are pushed to lower levels in order to enable distributed operations at increasing distances. These task forces will depend upon increased tactical mobility and must maintain a high state of readiness. At the same time, they must retain the capability to integrate quickly into a larger, more lethal force on short notice. The Marine Corps’ ethos, training, and warfighting philosophy make Marines ideally suited to these types of units and operations. However, we must ensure that our organizational designs, as well as planning and command and control (C2) capabilities, preserve the operational agility required to answer the demands of the complex future operating environment, and consistently fulfill the needs of our CCDRs.
MARINE AIR GROUND TASK FORCE (MAGTF) SUSTAINABILITY

A fundamental characteristic of the MAGTF is its ability to operate for extended periods as an expeditionary force, and rely on integral combat logistics element and 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. MAGTFs of different sizes deploy with a sufficient amount of supplies to support joint operations. MAGTFs can augment their organic sustainability by using external support from U.S. Navy organizations, host nation support agreements, inter-service support agreements, and in-theater cross-service agreements.

MARITIME PRE-POSITIONING 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. The Maritime Pre-positioning Ships (MPS) of the MPF are strategically forward deployed around the globe, and provide GCCDRs with persistent forward presence and rapid crisis response by pre-positioning the combat equipment and supplies to support up to two MEBs for 30 days.

The MPF is organized into 2 Maritime Pre-positioning Ship Squadrons (MPSRON) with 12 ships overall, and by 2015, there will be 14 ships. MPSRON-2 is based at Diego Garcia in the Indian Ocean, and MPSRON-3 is based at the Guam-Saipan area of the Western Pacific Ocean.

MPSRONs are inter-operable and designed to “marry-up” with a fly-in echelon to support the rapid closure of an MEB. The MPF can also support smaller or larger MAGTFs by employing as few as 1 or as many as 12 MPF ships. The MPF consists of government-owned ships operated by Military Sealift Command. 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 result is a combat-ready MAGTF rapidly established ashore, using minimal in-country reception facilities. The MAGTF combat capability provided by the MPF is capable of supporting GCCDR military operations across the ROMO.

MARINE CORPS PRE-POSITIONING PROGRAM (MCPP)

MCPP enhances the operational responsiveness of all GCCDRs by providing mission-tailored, pre-positioned support to our expeditionary operations globally. In order to support a MAGTF built around an infantry battalion task force and composite aviation squadron, the addition of communications and ordnance assets is reshaping the existing equipment set. Adjustments to quantities of equipment and supplies currently stored in Europe provides a balanced equipment set appropriate to support the new force list. MCPP retains its primary role of augmenting up to a MEB-sized force to support the reinforcement of Europe and our expeditionary operations. MCPP materiel is stored in multiple locations and is available for rapid preparation and marshaling at aerial, sea, or rail ports of debarkation in support of deploying MAGTFs. This forward pre-positioning reduces reaction time and eliminates the need to otherwise deploy this equipment from locations in the continental United States, with all the attendant burdens on strategic lift that this would entail.

HEADQUARTERS, U.S. MARINE CORPS (HQMC)

HQMC consists of the Commandant of the Marine Corps (CMC) and those staff agencies that advise and assist him in discharging his responsibilities prescribed by law. The CMC is directly responsible to the Secretary of the Navy for the overall performance of our Corps. This includes the administration, discipline, internal organization, training, requirements, efficiency, and readiness of the service. The CMC is a member of the Joint Chiefs of Staff, so HQMC supports his interaction with the Joint Staff (JS). The CMC is also responsible for the operation of our Corps’ material support system.
OPERATING FORCES

Operating forces are the heart of the Marine Corps. They provide the forward presence, crisis response, and combat power that our Corps makes available to CCDRs. Our Corps has established three permanent commands to provide forces to unified CCDRs:

- U.S. Marine Corps Forces Command (MARFORCOM)
- U.S. Marine Corps Forces, Pacific (MARFORPAC)
- U.S. Marine Corps Forces, Special Operations Command (MARFORSOC)

Our Corps retains control of MARFORCOM. The CMC, via the Joint Chiefs of Staff global force management allocation process, maintains II MEF and other unique capabilities under the Commander, MARFORCOM (COMMARFORCOM). The Commander, MARFORPAC (COMMARFORPAC) is assigned to the Commander, U.S. Pacific Command (PACOM), and provides I MEF and III MEF to PACOM. The Commander, MARFORSOC (COMMARFORSOC) is assigned to the Commander, U.S. Special Operations Command (SOCOM) and provides assigned forces to SOCOM. These assignments reflect the peacetime disposition of our Corps’ forces.
Marine forces are allocated to the remaining geographic and functional combatant commands for contingency planning as follows:

- 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)
- U.S. Strategic Command (STRATCOM)
- U.S. Cyber Command (CYBERCOM)
- U.S. Forces Korea (USFK)

The Secretary of Defense provides Marine forces to these commands. The following sections highlight some of these organizations and several of the other unique organizations in the operating forces.

**U.S. MARINE CORPS FORCES COMMAND (MARFORCOM)**

Key COMMARFORCOM tasks include:

- commanding AC “service retained” operating forces;
- executing our Corps’ force provider/force sourcing and synchronization to effect force generation actions across the AC/Reserve Component (RC) in provisioning of our joint capable forces;
- directing deployment, planning, and execution of “service retained” operating forces in support of CCDR and service requirements;
- serving as Commanding General, Fleet Marine Forces Atlantic (CG FMFLANT) and commanding our Corps’ embarked forces;
- coordinating U.S. Marine Corps - U.S. Navy Integration of operational initiatives and advising Commander, U.S. Fleet Forces Command (USFFC) in support to our Corps’ forces assigned to naval ships, bases, and installations;
- conducting service directed operational tasks as required.

Key MARFORCOM tasks include:

- reviewing CCDR’s requirements to:
  - determine our Corps’ capabilities that could source the need;
  - analyze the capacity to sustain enduring requirements;
  - assess associated costs as well as operational, service, and institutional risks to provide informed feedback to Service Headquarters and the JS;
- integrating the activities of force provider commands;
- supporting service providers to synchronize the generation;
- provisioning Marine forces ready for tasking by employing force component commanders;
- monitoring, assessing, reporting, and ensuring the readiness of our operating forces to support current operations, contingency plans, and emerging force requirements;
• assisting in the development and refinement of Joint/Marine Corps readiness standards in collaboration with the Deputy Commandant, Plans, Policies, & Operations (DC PP&O) and DC, CD&I, MARFORs and other Marine Corps organizations;
• serving as the designated Office of Primary Responsibility (OPR) within our Corps for joint training and exercises;
• supporting Service-retained operating force integration and developing/synchronizing joint force integration;
• coordinating naval operating force actions and initiatives as the waterfront partner to USFFC to improve U.S. Navy - U.S. Marine Corps integration and revitalize naval amphibious capabilities;
• undertaking efforts with USFFC to reinvigorate the amphibious traditions that make the U.S. Navy/ U.S. Marine Corps team an invaluable national asset;
• ensuring training in naval core competencies so USFFC and MARFORCOM-provided naval forces are prepared to address an uncertain security environment.

U.S. MARINE CORPS FORCES COMMAND (MARFORCOM) ORGANIZATIONAL CHART
## U.S. Marine Corps Forces Command (MARFORCOM) Units

### II Marine Expeditionary Force

**II Marine Expeditionary Force**  
**MARINE CORPS BASE, CAMP LEJEUNE, NC**

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

### 2d Marine Division

**MARINE CORPS BASE, CAMP LEJEUNE, NC**

- Headquarters Battalion
  - 2d Marine Regiment
    - 1st Battalion
    - 2d Battalion
    - 3d Battalion
  - 6th Marine Regiment
    - 1st Battalion
    - 2d Battalion
    - 3d Battalion
    - 2d Battalion, 9th Marines
  - 8th Marine Regiment
    - 1st Battalion
    - 2d Battalion
    - 3d Battalion
    - 1st Battalion, 9th Marines

### 2d Marine Aircraft Wing

**MARINE CORPS AIR STATION, CHERRY POINT, NC**

- Headquarters 2d Marine Aircraft Wing
- Marine Wing Headquarters Squadron 2
  - Marine Aircraft Group 14
    - Headquarters Marine Aircraft Group 14
    - Marine Aviation Logistics Squadron 14
    - Marine Tactical Electronic Warfare Training 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 Wing Support Squadron 271
  - Marine Aircraft Group 26
    - Marine Corps Air Station, New River, NC
    - Headquarters Marine Aircraft Group 26
    - Marine Aviation Logistics Squadron 26
    - Marine Medium Tilt-rotor Squadron 162
    - Marine Medium Tilt-rotor Squadron 261
    - Marine Medium Tilt-rotor Squadron 263
    - Marine Medium Tilt-rotor Squadron 264
    - Marine Medium Tilt-rotor Squadron 266
    - Marine Medium Tilt-rotor Squadron 365
    - Marine Medium Tilt-rotor Training Squadron 204
    - Marine Wing Support Squadron 272

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## II Marine Expeditionary Force (cont.)

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<td>2d Medical Battalion</td>
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<td>2d Dental Battalion</td>
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U.S. MARINE CORPS FORCES, PACIFIC (MARFORPAC)

DESCRIPTION

U.S. Marine Corps Forces, Pacific (MARFORPAC) is headquartered at Camp H.M. Smith, HI, and commands and controls nearly two-thirds of our Corps’ operational forces, approximately 86,400 Marines, Sailors, and civilians. The Commander MARFORPAC (COMMARFORPAC) is the Marine service component commander to the U.S. Pacific Command (PACOM), advising the PACOM commander on the proper roles and employment of our Corps’ forces within the PACOM Area of Responsibility (AoR).

The Pacific is a maritime theater, and because they are forward-deployed and forward-based, MARFORPAC forces are the ready, relevant, and responsive force-of-choice in the region. MARFORPAC forces routinely train and deploy from 16 major installations located in Japan, South Korea, Hawaii, California, and Arizona. They conduct more than 140 major multi-lateral and bi-lateral exercises and theater security cooperation engagements annually some 30 allies and partners in the Asia-Pacific region. Operating across a diverse geographic area stretching from Yuma, AZ to Goa, India.

MARFORPAC operational forces support national and theater strategic objectives, respond to crises, and maintain readiness. Component responsibilities to PACOM include supporting theater security cooperation, contingency planning, crisis response, non-combatant evacuation operations, foreign Humanitarian Assistance/Disaster Relief (HA/DR) operations, force posture, and homeland defense.

MARFORPAC forces are perfectly designed and suited for both crisis response and the Asia-Pacific maritime environment. In partnership with the U.S. Navy, MARFORPAC Marines are America’s crisis response force in the region, ready to help an ally in trouble or protect vital interests. MARFORPAC forces are organized, trained, and equipped to operate from ships, from the air and ashore as an air-ground combined arms force.

The proven combination of MARFORPAC Marines working hand-in-hand with the U.S. Navy from amphibious ships provides a flexible, expeditionary capability that can be tailored to rapidly respond across the spectrum of crises in the region, from major combat and maritime security to HA/DR. This unique capability is a key element to the U.S. forward presence in the region and the ability to provide peace and security in the Asia-Pacific.

In November 2013, Super Typhoon Haiyan hit the Philippines. The Philippine Government requested support from the U.S. Government through the U.S. Embassy and the Department of State requested Department of Defense (DoD) support. DoD tasked PACOM to support. PACOM turned to MARFORPAC to take the lead in U.S. military support. Okinawa-based MARFORPAC Marines arrived on the scene within hours of the storm to work with Philippine military government partners to help assess the damage and to coordinate and lead the U.S. military response, which grew to more than 6,000 personnel, numerous ships, and dozens of aircraft. This MARFORPAC effort in support of the Armed Forces of the Philippines played a vital, life-saving role.

In the past five years, MARFORPAC forces have participated in 12 HA/DR efforts, not just in the Philippines, but also in Bangladesh, Myanmar, Indonesia, and Japan.
Natural disasters are not the only threat in the region. Many nations in the Asia-Pacific region are interested in developing or improving their ability to respond to natural or man-made crises from the sea. Seven of the ten largest land armies in the world reside in the Pacific region. Many of those armies are now concentrating on their territorial borders and many of those borders are on oceans and sea-lanes. Each nation’s military possesses different capabilities and capacities to respond to these crises. They understand the need to train so they can rapidly respond when necessary.

MARFORPAC tailors its Marine Air-Ground-Logistics teams to train with each nation when and where they want and train to the capability and capacity they need, making MARFORPAC the training partner of choice in the region. This is exemplified by the training exercises and expertise exchanges we conduct every year with partners and allies throughout this region. MARFORPAC engagements in the Asia-Pacific region result in better training and interoperability with our friends and partners throughout the region. These engagements provide more than just improved security- they pave the way for enhanced economic ties which are beneficial to all.

Our Corps’ rebalance efforts in the Pacific are focused both on creating and strengthening partnerships with other nations’ militaries. These efforts are also aligned with the Defense Guideline’s direction for "innovative, low-cost, and small-footprint approaches to achieve our security goals." This realignment, often referred to as the “Distributed Laydown,” will position balanced MAGTF capabilities strategically located in Hawaii, Guam, and Japan. It directly supports the Defense Policy Review Initiative (DPRI) requirements in Japan and Guam.

The Distributed Laydown also supports the Secretary of Defense (SECDEF) requirement for 22.5K Marines to remain west of the international dateline. The MAGTFs in Okinawa and Hawaii are already well established, with plans for increasing capabilities in Guam.

The Distributed Laydown includes a seasonal, rotational presence in Australia, transforming MARFORPAC’s presence from a Northeast Asia-centered force, to a regionally-balanced force. In 2012 and 2013, approximately 200 MARFORPAC Marines were deployed to Robertson Barracks in Darwin, Northern Territory to train and work alongside the Australian Army for six months. In 2014, that presence will grow to more than 1,000 Marines and will include support aircraft. MARFORPAC is working toward eventually deploying up to 2,500 Marines and Sailors per rotation. Efforts are also underway for an increased rotational presence of Marine forces throughout the AOR. These rotational forces will train, exercise, and operate with allies and partners, better respond to crises, and promote security cooperation across the region.

COMMARFORPAC fills other roles in addition to his responsibilities to PACOM. As the Marine component commander for the Commander, U.S. Forces Korea (USFK), COMMARFORPAC advises the USFK Commander on the proper role and employment of Marine Corps forces within the Korean Theater of Operations.

COMMARFORPAC also serves in the traditional role of Commander, Fleet Marine Forces Pacific (FMFPAC) by advising the U.S. Pacific Fleet Commander on the proper role and employment of Marines when embarked and operating from Naval Ships.
CHAPTER 2: ORGANIZATION

U.S. MARINE CORPS FORCES, PACIFIC (MARFORPAC) ORGANIZATIONAL CHART

LEGEND

- MARFORPAC retains ADCON over MARFORK during armistice.
- MARFORPAC exercises Coordinating Authority in a consultative relationship with MCICOM over operational force base requirements and installation support initiatives.
- MARFORPAC retains TACON of MCIPAC and MCIWEST when supporting CDRUSPACOM UCP tasking, as well as OPCON during exceptional circumstances such as crisis/contingency response, depending on CDRUSPACOM requirements.
U.S. MARINE CORPS FORCES, PACIFIC (MARFORPAC) UNITS

1st Marine Expeditionary Force

1st Marine Expeditionary Force
Headquarters
Expeditionary Operations Training Group
9th Communications Battalion
1st Intelligence Battalion
1st Radio Battalion
1st Air Naval Gunfire Liaison Company
1st Law Enforcement Battalion
11th Marine Expeditionary Unit
13th Marine Expeditionary Unit
15th Marine Expeditionary Unit

1st Marine Division

Marine Corps Base, 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
11th Marine Regiment
1st Battalion
2d Battalion
3d Battalion
Marine Corps Air Ground Combat Center, 29 Palms, CA
5th Battalion (HIMARS)

MARFORPAC Units

I Marine Expeditionary Force
I Marine Expeditionary Force
3d Assault Amphibian Battalion
1st Light Armored Reconnaissance Battalion
3d Light Armored Reconnaissance Battalion
Marine Corps Air Ground Combat Center, 29 Palms, CA
1st Reconnaissance Battalion
1st Combat Engineer Battalion
1st Tank Battalion
Marine Corps Air Ground Combat Center, 29 Palms, CA

3d Marine Aircraft Wing

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

Marine Aircraft Group 3
Headquarters 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 225
Marine Aerial Refueler Transport Squadron 352
Marine Fighter Attack Training Squadron 101
Marine Wing Support Squadron 373

Marine Aircraft Group 13
Marine Corps Air Station, Yuma, AZ
Headquarters Marine Aircraft Group 13
Marine Aviation Logistics Squadron 13
Marine Attack Squadron 211
Marine Attack Squadron 214
Marine Attack Squadron 311
Marine All Weather Fighter Attack Squadron 121
Marine Wing Support Squadron 371

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## I Marine Expeditionary Force (cont.)

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<th>Location</th>
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<tr>
<td>Marine Medium Tilt-rotor Squadron 161</td>
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<tr>
<td>Marine Medium Tilt-rotor Squadron 163</td>
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<tr>
<td>Marine Medium Tilt-rotor Squadron 268</td>
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<td>Marine Corps Air Station, Camp Pendleton, CA</td>
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<td>Marine Corps Air Ground Combat Center, 29 Palms, CA</td>
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### 1st Marine Logistics Group

**MARINE CORPS BASE, CAMP PENDLETON, CA**

- Marine Logistics Group Headquarters
- Headquarters Regiment, 1st MLG
- Combat Logistics Battalion 11 (11th MEU)
- Combat Logistics Battalion 13 (13th MEU)
- Combat Logistics Battalion 15 (15th MEU)
- Combat Logistics Regiment 1
- Combat Logistics Battalion 1
- Combat Logistics Battalion 5
- Combat Logistics Battalion 7
- Marine Corps Air Ground Combat Center, 29 Palms, CA
- Combat Logistics Regiment 15
  - 1st Maintenance Battalion
  - 1st Supply Battalion
  - Combat Logistics Company 11
    - Marine Corps Air Station, Miramar, CA
  - Combat Logistics Company 13
    - Marine Corps Air Ground Combat Center, 29 Palms, CA
  - Combat Logistics Company 16
    - Marine Corps Air Station, Yuma, AZ
  - 1st Medical Battalion
  - 1st Dental Battalion
  - 7th Engineer Support Battalion
### III Marine Expeditionary Force

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<td>Headquarters Marine Aircraft Group 24 (-)</td>
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<td>3d Radio Battalion</td>
<td>Marine Heavy Helicopter Squadron 463</td>
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<td>Marine Wing Support Detachment</td>
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<td>5th Air and Naval Gunfire Liaison Company</td>
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<td>3d Law Enforcement Battalion</td>
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<td>3d Marine Expeditionary Brigade</td>
<td>Marine Aircraft Group 36</td>
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<td>3d Marine Expeditionary Brigade, Command Element</td>
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<td>Headquarters Marine Aircraft Group 36</td>
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<td><strong>3D MARINE DIVISION</strong></td>
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<td><strong>1ST MARINE AIRCRAFT WING</strong></td>
<td>MARINE CORPS BASES, OKINAWA, JAPAN</td>
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<td>3d Dental Battalion</td>
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<td>9th Engineer Support Battalion</td>
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U.S. MARINE CORPS FORCES, RESERVE (MARFORRES)

U.S. Marine Corps Forces, Reserve (MARFORRES) is headquartered in New Orleans, LA, and is responsible for providing trained units and qualified individuals for active duty (AD) service in times of war, national emergency, or in support of contingency operations. Our Corps’ expansion is made possible by the activation of MARFORRES. As an operational reserve, MARFORRES provides personnel and operational tempo relief for AC forces during times of peace.

Like the AC, MARFORRES is a combined arms force with balanced ground, aviation, and logistics combat support units. MARFORCOM manages MARFORRES’ capabilities as part of global force management responsibilities for the CMC. Commander, MARFORRES is also Commander, Marine Forces Northern Command (MARFORNORTH) and serves as the Marine component of NORTHCOM.

U.S. MARINE CORPS FORCES, RESERVE (MARFORRES) ORGANIZATIONAL CHART
## U.S. Marine Corps Forces, Reserve (MARFORRES) Units

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<tr>
<td>3d Air and Naval Gunfire Liaison Company</td>
<td>Bell, CA</td>
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<tr>
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<tr>
<td>2d</td>
<td>Washington, DC</td>
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<tr>
<td>3d</td>
<td>NS Great Lakes, IL</td>
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<tr>
<td>4th</td>
<td>Hialeah, FL</td>
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<tr>
<td>4th Law Enforcement Battalion</td>
<td>St Paul, MN</td>
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<tr>
<td>6th Communications Battalion</td>
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### 4th Marine Division (New Orleans, LA)

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<td>1st Battalion</td>
<td>Houston, TX</td>
</tr>
<tr>
<td>2d Battalion</td>
<td>Pasadena, CA</td>
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<tr>
<td>3d Battalion</td>
<td>Bridgeton, MO</td>
</tr>
<tr>
<td>2nd Battalion, 24th Marines</td>
<td>Chicago, IL</td>
</tr>
</tbody>
</table>

| 25th Marine Regiment                     | Ft. Devens, MA  |
| 1st Battalion                            | Ft. Devens, MA  |
| 2d Battalion                             | Garden City, NY |
| 3d Battalion                             | Brook Park, OH  |
| 1st Battalion, 24th Marines              | Mount Clemens, MI |

| 14th Marine Regiment                     | Ft. Worth, TX   |
| 2d Battalion (HIMARS)                    | Grand Prairie, TX |
| 3d Battalion                             | Bristol, PA     |
| 5th Battalion                            | Seal Beach, CA  |
| 4th Tank Battalion                       | San Diego, CA   |
| 4th Assault Amphibious Battalion          | Tampa, FL       |
| 4th Light Armored Reconnaissance Battalion| MCB Camp Pendleton, CA |
| 4th Combat Engineer Battalion            | Baltimore, MD   |
| 4th Reconnaissance Battalion             | San Antonio, TX |
| 3d Force Reconnaissance Company           | Mobile, AL      |
| 4th Force Reconnaissance Company          | Alameda, CA     |

### 4th Marine Aircraft Wing (New Orleans, LA)

<table>
<thead>
<tr>
<th>4th Marine Airbase Wing</th>
<th>New Orleans, LA</th>
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<tbody>
<tr>
<td>Headquarters 4th Marine Aircraft Wing</td>
<td>Andrews AFB, MD</td>
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<tr>
<td>Det VMR Andrews AFB</td>
<td>Andrews AFB, MD</td>
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<tr>
<td>Det VMR JR Chasse</td>
<td>Belle Chasse, LA</td>
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<thead>
<tr>
<th>Marine Aviation Training Support Group</th>
<th>NAS Pensacola, FL</th>
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<tbody>
<tr>
<td>Marine Aircraft Group 41</td>
<td>JRB Ft Worth, TX</td>
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<tr>
<td>Marine Aviation Logistics Squadron 41</td>
<td>JRB Ft Worth, TX</td>
</tr>
<tr>
<td>Marine Medium Tilt-Rotor Squadron 764</td>
<td>Miramar, CA</td>
</tr>
<tr>
<td>Marine Fighter Attack Squadron 112</td>
<td>JRB Ft Worth, TX</td>
</tr>
<tr>
<td>Marine Aerial Refueler Transport Squadron 234</td>
<td>JRB Ft Worth, TX</td>
</tr>
<tr>
<td>Marine Fighter Training Squadron 401</td>
<td>MCAS Yuma, AZ</td>
</tr>
<tr>
<td>Marine Wing Support Squadron 471</td>
<td>Minneapolis, MN</td>
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<tr>
<td>Marine Wing Support Squadron 473</td>
<td>MCAS Miramar, CA</td>
</tr>
</tbody>
</table>

| Marine Aircraft Group 49                  | JRB McGuire-Dix-Lakehurst, NJ |
| Marine Aviation Logistics Squadron 49     | JRB McGuire-Dix-Lakehurst, NJ |
| Marine Aerial Refueler Transport Squadron 452 | JRB McGuire-Dix-Lakehurst, NJ |
| Marine Medium Helicopter Squadron 774     | JRB McGuire-Dix-Lakehurst, NJ |
| Marine Heavy Helicopter Squadron 772      | JRB McGuire-Dix-Lakehurst, NJ |
| Marine Light Attack Helicopter Squadron 773 | JRB McGuire-Dix-Lakehurst, NJ |
| Marine Wing Support Squadron 472          | JRB McGuire-Dix-Lakehurst, NJ |

| Marine Air Control Group 48                | Great Lakes, IL   |
| Marine Tactical Air Command Squadron 48    | Great Lakes, IL   |
| Marine Air Control Squadron 24             | Virginia Beach, VA |
| Marine Air Support Squadron 6              | Westover Air Reserve Base, MA |
| Marine Wing Communications Squadron 48     | Great Lakes, IL   |
| Marine Unmanned Aerial Vehicle Squadron 4  | Camp Pendleton, CA |

### 4th Marine Logistics Group (New Orleans, LA)

<table>
<thead>
<tr>
<th>4th Marine Logistics Group</th>
<th>New Orleans, LA</th>
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<tbody>
<tr>
<td>Combat Logistics Regiment 4</td>
<td>Kansas City, MO</td>
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<tr>
<td>Combat Logistics Battalion 23</td>
<td>Fort Lewis, WA</td>
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<tr>
<td>Combat Logistics Battalion 453</td>
<td>Aurora, CO</td>
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<tr>
<td>Combat Logistics Regiment 45</td>
<td>Marietta, GA</td>
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<tr>
<td>Combat Logistics Battalion 25</td>
<td>Red Bank, NJ</td>
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<tr>
<td>Combat Logistics Battalion 451</td>
<td>Charlotte, NC</td>
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<tr>
<td>6th Engineer Support Battalion</td>
<td>Portland, OR</td>
</tr>
<tr>
<td>4th Medical Battalion</td>
<td>San Diego, CA</td>
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<tr>
<td>4th Dental Battalion</td>
<td>Marietta, GA</td>
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</table>
The Secretary of Defense recognized the significance of the cyberspace domain to national security, and directed the establishment of CYBERCOM as a sub-unified command under STRATCOM. CYBERCOM’s primary objective is to integrate the cyberspace 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 (this was complemented by the standing up of the Navy’s U.S. Tenth Fleet/Fleet CYBERCOM, Army Cyberspace Command (ARCYBER), and Air Force Cyberspace Command (AFCYBER).

MARFORCYBER’s mission, in addition to our standard service component responsibilities, is to: plan, coordinate, integrate, synchronize, and direct our Corps’ full spectrum of cyberspace operations. This includes Department of Defense (DoD) Information Network (DoDIN) operations, Defensive Cyber Operations (DCO), and planning and executing Offensive Cyberspace Operations (OCO). These operations support MAGTF, Joint and combined cyberspace requirements that enable freedom of action across all warfighting domains and deny the same to adversarial forces.

MARINE CORPS NETWORK OPERATIONS AND SECURITY CENTER (MCNOSC)

The MCNOSC’s mission is to direct global Network Operations (NETOPS) and computer network defense of the Marine Corps Enterprise Network (MCEN) and to provide technical leadership in support of Marine and joint forces operating worldwide. The MCNOSC is also responsible for intelligence gathering and analysis to develop future capabilities planning in accordance with DCO.

The MCNOSC is the Computer Network Defense Service Provider (CNDSP) and serves as our Corps’ Global Network Operations and Security Center (GNOSC). The MCNOSC provides 24/7 NETOPS C2 through its Operations Center. Under the OPCON of MARFORCYBER, the MCNOSC executes our Information NETOPS and DCO in support of our operational requirements in order to enhance freedom of action across all warfighting domains, while denying the efforts of adversaries to degrade or disrupt this advantage through cyberspace.

Key MCNOSC tasks include:

- operating and defending the MCEN
- collecting and sharing DoDIN Situational Awareness
- reporting and directing actions that pro-actively address threats and vulnerabilities
- responding to operational incidents
- providing technical leadership to ensure that our Corps and joint capabilities leverage new technologies to the advantage of the Marine warfighter

COMPANY L, MARINE CRYPTOLOGIC SUPPORT BATTALION (MCSB)

Assigned under the OPCON of MARFORCYBER, Company L’s mission is to plan and when directed, conduct offensive cyberspace operations in support of Service, joint and combined cyberspace requirements, and when directed, provides support to defensive cyberspace operations.
In October 2005, the Secretary of Defense directed our Corps to form a service component of U.S. Special Operations Command (USSOCOM) to provide forces to the Commander, USSOCOM. MARFORSOC formally established its headquarters on 23 February 2006, at Camp Lejeune, NC. MARFORSOC trains, organizes, equips, and deploys task organized, scalable, and responsive U.S. Marine Corps SOF worldwide in support of CCDRs and other agencies, when directed by the commander of USSOCOM.

A U.S. Marine Corps Major General commands MARFORSOC with a support staff that is designed to be compatible with the functional areas within USSOCOM and HQMC. MARFORSOC headquarters is responsible for identifying Marine special operations requirements; developing Marine SOF Tactics, Techniques, Procedures (TTPs), and doctrine; and executing assigned missions in accordance with designated conditions and standards.

MARFORSOC currently consists of approximately 3,000 Marines, Sailors, Soldiers, and civilian employees, with an ultimate growth target of 3,085. MARFORSOC includes three subordinate commands:

- Marine Special Operations Regiment (MSOR), which consists of three Marine Special Operations Battalions (MSOB):
  » 1st MSOB at Camp Pendleton, CA
  » 2d MSOB at Camp Lejeune, NC
  » 3d MSOB at Camp Lejeune, NC

- Marine Special Operations Support Group (MSOSG), which consists of three Marine Special Operations Combat Support Battalions:
  » 1st MSOSB at Camp Pendleton, CA
  » 2d MSOSB at Camp Lejeune, NC
  » 3d MSOSB at Camp Lejeune, NC

- Marine Special Operations School (MSOS) at Camp Lejeune, NC, which consists of a three training branches:
  » Special Operations Training Branch
  » Survival Escape Resistance Evasion Branch
  » Language Branch
Since its inception, MARFORSOC has conducted more than 160 operational unit deployments ranging in mission and unit size from, Marine Special Operations Teams (MSOTs) and Marine Special Operations Companies (MSOCs) to, Marine Special Operations Task Forces (SOTFs) in support of the GCCDRs. In 2009, MARFORSOC deployed its first SOTF Headquarters, built around a Marine Special Operations Battalion, to Afghanistan. MARFORSOC continues to deploy SOTFs to Afghanistan, and recently executed the fifth such deployment.

These MARFORSOC SOTFs provide command, control, coordination, and support to multiple SOF elements from MARFORSOC, U.S. Army Special Operations Command (USASOC), and Warfare Command (WARCOM) throughout RC West and RC Southwest, which is an area of over 100,000 square miles. MARFORSOC has been involved in missions around the globe, though their primary focus has been the support of operations in Afghanistan.

To date, MARFORSOC has conducted missions in over 18 different countries. The majority of these missions have focused on training partner nation forces, assisting in counter narco-terrorism efforts, and providing other subject matter expert guidance to countries in component commands of: CENTCOM, PACOM, AFRICOM, NORTHCOM, and SOUTHCOM. The regional focus of MSOR’s three battalions is in support of these commands. This regionalization enables each battalion to forward deploy an MSOC on a persistent basis within each of these three regions and respond quickly to planned and emerging missions.

MARFORSOC CORE ACTIVITIES

Special Operations require unique modes of employment, tactical techniques, and training. They are often in hostile, denied, or politically sensitive environments. MARFORSOC is composed of regionally focused and operationally astute Critical Skills Operators (CSO), which are formed into MSOTs that are forward deployed to conduct shaping, deterrence, and crisis response operations. USSOCOM has tasked MARFORSOC with providing specially trained units in the following SOF core activities:

- Direct Action (DA)
- Special Reconnaissance (SR)
- Security Force Assistance (SFA)
- Counter-Insurgency (COIN)
- Foreign Internal Defense (FID)
- Counter-terrorism (CT)
- Information Operations (IO)

In addition, MARFORSOC’s task is also to provide support for Civil Affairs Operations, Military Information Support Operations (MISO), Unconventional Warfare (UW) and Counter Proliferation operations, as well as training, equipping, planning for, and providing forces to execute SOF command and control.

MARFORSOC SUBORDINATE UNITS

Marine Special Operations Regiment (MSOR): The MSOR 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. MSOR also provides the capability to form the nucleus of a joint SOTF. 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; counter subversion; and reduce the risk of violence from internal and external threats. MARFORSOC, through USSOCOM, coordinates MSOR deployments in accordance with engagement priorities for Overseas Contingency Operations. MSOR HQ is located at Camp Lejeune, NC.
MSOR has three MSOBs, which are organized, trained, and equipped to deploy for worldwide missions. A Marine lieutenant colonel commands each battalion, which consist of four MSOCs task organized with personnel uniquely skilled in special equipment support, intelligence, and fire support when designated for deployment. A Marine major commands each MSOC and is capable of deploying task organized, expeditionary Marine SOFs, and providing the above listed core activities in support of the GCCDRs. MSOCs are also uniquely organized and tailored to conduct distributed operations in the littorals with COIN expertise and language and cultural capabilities. Each team within the company is designed and capable of limited split-team operations, and is trained to conduct FID, DA, and SR missions both unilaterally and with partner nation forces.

**Marine Special Operations Support Group (MSOSG):** The MSOSG provides support capabilities for worldwide special operations missions as directed by the COMMARFORSOC. The MSOSG specifically provides: all source intelligence fusion, combined arms coordination, multi-purpose canine capability, special operations communications, and combat service support capabilities to MARSOF through its three MSOSBs, each of which is aligned to a MSOB. The MSOSG deploys its capabilities in integrated tailored operational support detachments with MSOTs, MSOCs, and SOTFs as determined by the deploying commander’s problem framing and tasked by the COMMARFORSOC. The MSOSG’s three battalions have a habitual support relationship with the three MSOBs of MSOR. The MSOSG is located at Camp Lejeune, NC.

**Marine Special Operations School (MSOS):** The MSOS screens, assesses, selects, and trains Marines and Sailors for special operations assignments in MARFORSOC. MSOS also provides initial and advanced individual special operations training, and serves as MARFORSOC’s training and education proponent in support of MARFORSOC requirements. The MSOS is located at Camp Lejeune, NC.

**U.S. Marine Corps Forces, Special Operations Command (MARFORSOC) Organizational Chart**
INSTALLATIONS

U.S. MARINE CORPS INSTALLATIONS COMMAND (MCICOM)

The Commander, MCICOM is the single authority for all installation matters. MCICOM consists of a headquarters and four subordinate commands: Marine Corps Installations Pacific, Marine Corps Installations West, Marine Corps Installations East, and Marine Corps Installations the National Capital Region.

Our Corps’ installations directly support Marine Corps Operating Forces, individual Marines, Sailors, and their family members. They are essential components in the foundation of national defense as they are the force projection platforms that enable readiness, training, sustainment, mobilization, deployment, embarkation, redeployment, and reconstitution. Additionally, installations provide forces to CCDRs with niche capabilities such as: community planning for theater SC, Operational Support Aircraft (OSA), Explosive Ordnance Disposal, and Military Working Dogs to support diplomatic security missions. Our installations continue to face continued challenges regarding encroachment, environmental compliance, and constrained resources. During a period of fiscal austerity, MCICOM is the ideal organization construct for creating more efficient and effective ways to provide high quality installation support while meeting mandates to reduce energy and water consumption, mitigate environmental concerns, and improving the readiness of those supported.

U.S. MARINE CORPS INSTALLATIONS COMMAND (MCICOM) ORGANIZATIONAL CHART
U.S. MARINE CORPS, LOGISTICS COMMAND (LOGCOM)

LOGCOM’s headquarters are in Albany, GA, and provide: worldwide-integrated logistics; supply chain and distribution management; maintenance management; and strategic pre-positioning capability in support of the operating forces and other supported units. The services and support provided by LOGCOM maximize supported unit readiness; synchronize distribution processes; and support our Corps’ enterprise and program level total life-cycle management.

LOGCOM is our lead agency for the retrograde and reset of equipment returning from Afghanistan, and continues to expedite, track, and process principal end items and other classes of supply from Operation Enduring Freedom (OEF). LOGCOM manages the enterprise life-cycle maintenance program that resets designated ground weapon systems, and provides critical sustainment logistics support to Marine forces currently deployed to Afghanistan.

LOGCOM’s structure allows the execution of its core competencies via the following subordinate commands: MEF Support Teams co-located with each MEF and at MARFORRES Headquarters; liaison officers in the National Capital Region, at Marine Corps Systems Command (MCSC); and the Defense Logistics Agency.

BLOUNT ISLAND COMMAND (BIC)

BIC is located in Jacksonville, FL, and ensures that ground equipment and supplies associated with our afloat and ashore pre-positioning programs are at the highest state of readiness. BIC services our Corps’ entire Maritime Pre-Positioning fleet over consecutive three-year periods. BIC also services our equipment maintained in Europe as part of the MCPP. The BIC facility continues to expand to accommodate the anticipated requirements of the future MPF program. In addition to the MPF mission, BIC also manages the MEU Augmentation Program (MAP) by supporting the MEUs that serve as CENTCOM strategic reserve. The MAP is an inventory of equipment, mainly rolling stock and armored vehicles, on call in Kuwait.

MARINE DEPOT MAINTENANCE COMMAND (MDMC)

MDMC’s headquarters are located aboard the Marine Corps Logistics Base, Albany, GA. MDMC and has two production plants, one in Albany, GA and one in Barstow, CA. MDMC reduces overhead, provides greater flexibility, and enables critical efficiencies to better support Marines in combat and in training by consolidating two separate headquarters of the formerly independent maintenance centers.

MDMC exercises C2 over the operations and production of the two production plants from a single, consolidated CE. The production plants repair, rebuild, and modify all types of ground combat, combat support, and combat service support equipment. Both production plants have been designated as Centers of Industrial and Technical Excellence (CITEs) for:

- ground and amphibious combat and combat support systems
- combat/tactical vehicles
- automotive/construction equipment
- ordnance/weapons
- general-purpose equipment
- communications/electronics equipment

Both production plants also have rapidly realigned capability and capacity to meet the immediate needs of the warfighter. This includes the ongoing deployment of maintenance teams to OEF to provide support for combat operations and the continuing execution of the reset of equipment retrograded from Afghanistan.

MARINE CORPS LOGISTICS COMMAND (FORWARD) (LOGCOM (FWD))

LOGCOM (Fwd) is located in Afghanistan and is primarily responsible for the retrograde of our equipment from Afghanistan by identifying, accounting for, and shipping equipment to its final destination.
Key LOGCOM (Fwd) tasks include:

- managing several operational level logistics efforts designed to sustain the readiness of combat forces and allow them to focus on their tactical mission;
- providing a forward-in-stores capability, which is an inventory of critical equipment that is used to replace damaged or destroyed items immediately instead of waiting for them to be shipped from the United States;
- managing the principal end item rotation program, an effort designed to maintain a steady flow of refurbished equipment throughout the theater;
- coordinating the use of all available in-theater maintenance resources to keep equipment combat-ready.

MARINE CORPS LOGISTICS COMMAND HEADQUARTERS (LOGCOM HQ) GROUP

LOGCOM HQ Group is located aboard the Marine Corps Logistics Base, Albany, GA. LOGCOM HQ Group provides for the safety and welfare, ensures good order and discipline, and maintains individual readiness for all Marines and Sailors assigned to the headquarters and MDMC.

U.S. MARINE CORPS, LOGISTICS COMMAND (LOGCOM) ORGANIZATIONAL CHART
Introduction

The primary role of the Marine Corps in the 21st century is to be America’s Expeditionary Force in Readiness. We are a force that provides combined-arms operating forces - including integrated aviation and logistical components - for service as part of naval, joint, and combined forces worldwide. The Marine Corps fills a unique role in the capability range of America’s armed forces. As the nation’s Middleweight/Crisis Response Force, we are lighter than the Army, and heavier than Special Operations Forces (SOF). Our Corps’ forces magnify the United States’ power-projection capabilities, to ensure American military power remains influential during peacetime, compelling in crisis, and decisive in war.

As we look ahead, we will reinvigorate and reinforce our credentials as a lighter, faster, hard-hitting, expeditionary, and sea-based Marine Corps that relies on agility, shock, and surprise. Innovation and fiscal responsibility will also continue to be hallmarks of the Marine Corps. We will continue to invest limited resources to restore combat capability and enhance our Marines’ readiness at home and in overseas operating areas. We also are monitoring our total investment requirements and measuring them against changing operational demands. For example, in the Marine Corps’ ground and aviation programs, we continue to test, develop, and procure dual-use systems and employ emerging technology. However, our focus remains on the individual Marine’s ability to carry out the tasks at hand.

The Programs Section of Concepts and Programs contains the 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 their mission.
ACQUISITION CATEGORIES (ACAT) AND TERMS

The category of an acquisition program is determined upon an assessment of cost, complexity, and risk. The following is a description of the most commonly discussed ACAT levels.

ACAT I: MAJOR DEFENSE ACQUISITION PROGRAMS (MDAP)

The Undersecretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) designates MDAPs as ACAT ID (Defense Acquisition Board) or ACAT IC (Component). The Milestone Decision Authority (MDA) for an ACAT ID program is USD (ATL), and the MDA for ACAT IC (Component) Department of the Navy (DON) programs is the Secretary of the Navy or the Assistant Secretary of the Navy Research, Development & Acquisition (ASN (RDA)). To achieve this level of designation, a program must exceed $480 million in FY14 constant dollars in research and development funding, or exceed $2.8 billion in FY14 constant dollars in procurement funding. Otherwise, the MDA must designate a program as “Special Interest.”

Our Corps leads the following ACAT I programs: the MV-22 Osprey Program; the Global Combat Support System; the Ground Air Task Oriented Radar; the Medium Tactical Vehicle Replacement; and the Common Aviation Command and Control System (CAC2S). Our Corps participates in numerous Joint ACAT I programs, including the Global Broadcast Service, the Joint Light Tactical Vehicle (JLTV), and the Joint Tactical Radio System (JTRS).

ACAT IA: MAJOR AUTOMATED INFORMATION SYSTEMS (MAIS)

USD(AT&L) designates MAIS programs as ACAT IAM (MAIS) or ACAT IAC (Component) and is the MDA for ACAT IAM programs, unless delegated to the Assistant Secretary of Defense for Networks and Information Integration (ASD(NII)).

The ASN(RDA) is the MDA for DON ACAT IAC programs. These are the largest automated information system (AIS) acquisition programs. This level has several cost thresholds including: AIS programs with single year funding, in all appropriations in excess of $40 million in FY14 constant dollars; total program cost in excess of $165 million in FY14 constant dollars; total life-cycle costs in excess of $378 million in FY00 dollars; or designated as “Special Interest” by the MDA.

ACAT II

These programs do not meet the threshold for ACAT I, but have research and development funding in excess of $185 million or procurement funding in excess of $835 million. The USD(AT&L) or his designee is the MDA for ACAT II programs, which are also known as Major Systems programs. Our Corps funds two ACAT II programs: The Logistics Vehicle Systems Replacement (LVSR) and the Lightweight 155 Howitzer.

ACAT III

Programs that do not meet the cost threshold for ACAT I or II but involve combat capability are designated ACAT III or IV programs. Within the our Corps, the designation generally depends on the level of program management and oversight assigned by Commander, MCSC, Program Executive Officer Land Systems, or the Direct Reporting Program Manager when that applies. We currently manage more than 24 ACAT III programs.

ACAT IV

There are two categories of ACAT IV programs. ACAT IVT (Test) programs require Operational Test and Evaluation (OT&E), while ACAT IVM (Monitor) programs do not. Commander, Operational Test and Evaluation Force (COMOPEVFOR) or Director, Marine Corps Operational Test and Evaluation Activity (Director, MCOTEA) may elect to monitor ACAT IVM programs. We manage nearly 40 ACAT IVM programs.

ABBREVIATED ACQUISITION PROGRAMS (AAPs)

AAPs are programs that do not meet the criteria for ACAT IV or above and does not require OT&E. Developmental costs for AAPs cannot exceed $10 million and total program value cannot exceed $50 million. For ITT systems, developmental costs cannot exceed $15 million, or program costs exceed $30 million. For the past several years, our Corps has managed approximately 100 AAP programs at any given time.
CHAPTER 3: PROGRAMS

OPERATIONS AND SUPPORT PROGRAMS (O&S PROGRAMS)
As total life-cycle managers of already acquired and fielded systems, MCSC maintains control and management oversight responsibilities for more than 300 independent systems needed to support the warfighter.

ACQUISITION PHASES AND TERMS
Materiel Solution Analysis Phase (Pre-Milestone A): The purpose of this phase is to assess potential materiel solutions and to satisfy the phase-specific entrance criteria for the next program milestone designated by the MDA. The partial definition of the concepts for the most promising systems is broad objectives for the performance and the identification of interoperability and integration. These objectives are requirements within a family of systems (FoS), or system of systems. The Materiel Solution Analysis Phase ends when: the Analysis of Alternatives (AoA) is complete; the recommendations for the materiel solution options for the capability need identified in the approved Initial Capabilities Document (ICD) are complete; and the phase-specific entrance criteria for the initial review milestone is satisfied.

Technology Maturation and Risk Reduction Phase (Pre-Milestone B): The purpose of this phase is to: reduce technology risk; determine, mature, and integrate the appropriate set of technologies into a full system; and demonstrate critical technology elements on prototypes.

Technology Development is a continuous technology discovery and development process reflecting close collaboration between the science and technology (S&T) community, the user, and the system developer. Technology Development is also an iterative process designed to assess the viability of technologies while simultaneously refining user requirements.

Engineering and Manufacturing Development (EMD) (Pre-Milestone C): This is the phase in which a system or increment of capability 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 (Post-Milestone C): During this phase, OT&E determines the effectiveness and suitability to achieve the operational capability, which satisfies the mission needs. Milestone C authorizes entry into Low Rate Initial Production (Low Rate Initial Production (LRIP), for MDAPs and major systems), into production or procurement (for non-major systems that do not require LRIP), or into limited deployment in support of operational testing for MAIS programs or software intensive systems with no production components.

The MDAPs and other programs on the Office of the Secretary of Defense (OSD) Test and Evaluation Oversight List, Production and Deployment have two major efforts – LRIP and Full-Rate Production (FRP) and Deployment – and require an FRP decision Review. The FRP Decision Review is also known as, the Full Deployment Decision review, for MAIS programs or software intensive systems with no production components.

A Non-Developmental Item (NDI): A 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 our Corps.

Initial Operational Capability (IOC): A program has generally reached IOC once it has scheduled to receive a system, received a system, and now has the ability to employ and maintain a system. The definitions for the specifics of a particular system’s IOC are in that system’s Capabilities Development Document (CDD) and Capability Production Document (CPD).

Full Operational Capability (FOC): A program has generally reached FOC once all of a force’s scheduled units and organizations have received, and have the ability to employ and maintain that system. The definitions for the specifics of a particular system’s FOC are in that system’s CDD and CPD.
CHAPTER 3: PROGRAMS

PILLAR 1: HIGH QUALITY PEOPLE
Section 1: Manpower
Introduction

Our Corps is an expeditionary force, fully trained and capable of executing assigned missions. Our strategic guidance rightfully focuses our attention on the PACOM and CENTCOM regions. U.S. Navy-U.S. Marine Corps forward basing, response capabilities, and plans are pre-positioned to support that strategy, yet we will remain vigilant and capable to respond on short notice in other areas of the world, as our Nation requires. Marines continually stand ready to contribute to a decisive joint force, and can help provide access for that force wherever needed.

Our Corps of today and tomorrow will maintain high standards of training, education, leadership, and discipline, while contributing vital capabilities to the Joint Force capabilities across the spectrum of military operations. This emerging strategy continues to re-validate our role as America’s Expeditionary Force in Readiness. Our partnership with the U.S. Navy enables a forward deployed and engaged force that shapes, deters, responds, and projects power well into the future.
that maintains our crisis response capability and forward presence. A 175,000 force emerged as the best we could do to address the operational requirements of steady-state deployments, crisis response activities, and potential major combat operations while still preserving institutional health and readiness. At this size, our Corps leverages its crisis response capability, which is crucial for the current and future threat environments, through lighter, agile, and forward deployed forces. We accept significant risk, however, in our ability to carry out major combat operations.

We developed the 175,000 force in concert with the Secretary of Defense’s recent Strategic Choices and Management Review (SCMR) and within the DoD’s guidance for force size and budget constraints to be achieved by 2017. The Marine Corps will use this force as the recommended basis for our contribution to our Nation’s defense.

END STRENGTH

Fiscal Year 2014 marks the second year of a multi-year drawdown period as our Corps moves towards a 175,000 force. Personnel costs account for about 60 cents of every USMC dollar, and the resulting Marine active duty force, supported by our RC, retains the capacity and capability to support steady-state and crisis response operations through rotational deployments, and rapidly surge in support of major contingency operations.

As we reduce our AC end strength, we must manage the rate of reduction carefully and responsibly. Our Corps plans to drawdown our end strength by approximately 5,000 Marines (no more than 7,500) per year. The continued resourcing of this gradual drawdown is vital to keeping faith with our Marines, many of whom have served in combat, and their families. This pace of drawdown will allow us to complete of our mission in Afghanistan while ensuring proper resiliency in the force relative to dwell times. As the Armed Forces continue to drawdown, we will guard against the tendency to focus on pre-9/11 end strength levels, which would neither account for the lessons learned from 10 years of war, nor address the irregular warfare (IW) needs of the modern battlefield. Our 175,000 force represents fewer infantry battalions, artillery battalions, fixed wing aviation squadrons, and general support combat logistics battalions than we had prior to 9/11.
We are committed to keeping faith with Marines, Sailors, and their families who have sacrificed so much over the past decade of war. One of the worst measures employed to save money is, personnel reductions that become precipitous. Our force is all-volunteer and built upon a reasonable opportunity for retention and advancement. Unplanned and unexpected wholesale cuts undermine the faith and confidence in service leadership and create long-term experience deficits with negative operational impacts. Such an approach would no doubt do significant long-term damage to our ability to recruit and maintain a quality force.

**RECRUITING**

Marine Corps Recruiting Command (MCRC) is headquartered in Quantico, VA, and conducts operations to recruit qualified individuals for enlistment or commissioning into the U.S. Marine Corps and U.S. Marine Corps Forces, Reserve. MCRC’s goal is to attain the assigned Total Force personnel requirements by component and category in accordance with the applicable fiscal year’s U.S. Marine Corps accessions strategy (Manpower Accessions Plan Memoranda), the Recruiting Operations Order, and as otherwise directed by the CMC. MCRC consists of two recruiting regions with three recruiting districts each. MCRC has 3,760 recruiters operating out of 48 recruiting stations, 615 recruiting sub-stations, and 72 officer selection sites. MCRC maintains facilities throughout the continental United States, Alaska, Hawaii, Puerto Rico, the U.S. Virgin Islands, Guam, and the Northern Mariana Islands.

**CHANGING DEMOGRAPHICS**

Our Nation’s rapidly changing demographics continue to propel diversity forward as a strategic issue. The key to our diversity effort is understanding that the objective is not to structure a force that merely reflects current demographics. For meaningful improvements to diversity, we must orchestrate obvious and viable change at all levels—particularly in our officer corps. It is through actively seeking the best and brightest young people from all communities in our Nation that we achieve diversity of intellect, talent, culture, and demographic representation - all of which raise the total capability of our Corps.

Our Corps defines diversity as the aggregate of the varied cultures, backgrounds, talents, skills, and abilities among Marines that ensure our connectedness and special relationship with the American people; leverage America’s varied pool of skills and abilities; and maximize the individual differences of our people as a force multiplier. Diversity is not about providing special treatment or establishing quotas.

Diversity is about attracting the best of America, making sure the institution welcomes them, and helping them reach their full potential as members of our Corps. We can only do that when we are able to recruit talent from each of America’s core communities, and when that talent, no matter who they are or where they are from, can look up and see themselves reflected in leadership roles within our Corps.

We continue our efforts to increase awareness about officer programs in underrepresented communities. We also conduct leadership seminars at many locations throughout our country, and can introduce diverse college undergraduates and key influencers to Marine leadership traits and leadership opportunities. While minority officer accessions saw an increase during FY12 and FY13, we must wisely manage all of our talent by employing effective career development and mentorship initiatives. This long-term manpower investment will require focused leadership in order to maintain our diversity gains. Doing so will set the conditions for more diverse officer profile projections.

During 2013, four Diversity Task Forces were formed to identify and prioritize the key diversity-related challenges that pertain to leadership, culture, women officers, and minority officers in our Corps. These CMC-established task forces were given the mission of helping our Corps confront connectedness challenges it faces in a rapidly changing Nation and world. The task force recommendations will offer the CMC a range of options for our Corps’ long-term talent management strategy. We will emphasize the operational necessity of diversity by educating Marines on how it can be a force multiplier. To ensure continued connectedness with the Nation, we will conduct diverse strategic community outreach and recruit marketing and ensure quality opportunities for merit-based development and advancement for all Marines.
**MANPOWER RECRUITING**

Fiscal Year 2013 was another productive year for the Marines of MCRC as their sustained recruiting efforts resulted in 37,929 total force non-prior service enlisted, 1,403 officers, 191 Warrant officers, and 3,858 prior service Marine accessions with high quality indicators.

The tireless effort of the recruiting force was instrumental in our attainment of the FY13 overall end strength goal. Moving into FY14, MCRC is maintaining an appropriately sized and resourced recruiting force. Doing so will ensure MCRC is poised to meet future accession requirements that continue to fluctuate and to meet the challenges of recruiting an all-volunteer force that is due to the large percentage of first-term Marines.

Recruiting remains the lifeblood of our Corps. Our Corps’ foundation is built upon the bedrock of the efforts of the recruiting force and the quality of the individual. To recruit the high quality men and women necessary to earn the title of “Marine” requires a significant investment in who becomes a recruiter. The Marines chosen to become recruiters undergo extensive screening to ensure they meet qualifications for this demanding independent duty.

The Marines that qualify are the best our Corps has to offer, and are specifically chosen to be our ambassadors to communities across America. The intent is to have a representative of our Corps in every community who embodies our values to the American public, and who inspires and influences young men and women to seek the challenge of becoming a Marine.

This practice is further supported by the intensive training provided at Recruiters School further supports this practice and ensures that each recruiter is thoroughly prepared to face the multi-faceted challenges associated with recruiting duty. Throughout a recruiter’s tour, sustained training ensures proficiency, preparedness, and success. Even before a prospective applicant first encounters a recruiter, it is likely that they, in some way, have already been exposed to our Corps’ message of making Marines, winning our nation’s battles, and developing quality citizens.

Comprehensive marketing and advertising programs strategically raise awareness of our Corps and is vital to MCRC’s success. Individual recruiters reinforce the elite warrior image and send the same positive message with support from the collateral materials. These programs are also critical to maintain our message, generate quality leads for recruiters, and develop recruiter support material for use in the recruiting process. Awareness of our Corps’ opportunities amongst America’s young men and women is created and maintained by high quality advertising efforts, which are focused on the target markets of prospective recruits and their influencers.

A strategically aligned paid marketing and advertising effort is integral to connecting with the diverse, high quality officer and enlisted target markets, their influencers, and the American people. MCRC will continue to enhance its strengths, minimize weaknesses, exploit opportunities, and mitigate threats in an uncertain and ambiguous recruiting environment. Our Corps’ target market is less inclined to consider military service, is 75 percent disqualified, is protected by technology—resulting in traditional advertising channels becoming less and less effective—and can take other paths in service to the country.

MCRC will continue to rely on adequate funding to maintain and enhance its competitive advantage by: conducting market research, continuing to enhance digital properties, developing innovative and creative campaigns, weaving diversity into all marketing and advertising efforts, establishing partnerships with influential organizations, and working closely with internal and external stakeholders. The FY14 marketing and advertising effort will continue to focus on attracting the best and brightest individuals to serve our Corps in a manner which continues to generate the awareness and quality leads required to ensure MCRC achieves it assigned Total Force accession mission requirement.

MCRC achieved success in FY13 by making 100 percent of its enlisted shipping objectives and exceeding the quality standards for both the DoD and our Corps. For example, 99.7 percent of those shipped to recruit training were Tier 1 high school graduates, above our Corps’ and the DoD’s standards of 90 and 95 percent, respectively. Additionally, 73.5 percent were in the I-IIIA upper mental group, which again is well above, our Corps’ and the DoD’s standards of 63 percent and 60 percent, respectively.

A parallel achievement, MCRC achieved 100 percent of its recruiting goals for MARFORRES by
accessing 5,714 Non-Prior Service Marines into the Selected Marine Corps Reserve (SMCR). Of these, 99.8 percent were Tier I high school graduates and 76.3 percent were in the I-IIIA mental groups. In addition, MCRC accessed 3,858 Prior Service Marines into the Marine Forces Reserve, achieving 100 percent of the objective.

The officer mission also achieved success by obtaining 100 percent in all categories of air, ground, and law. Coupled with the contributions of the U.S. Naval Academy (USNA) and the Naval Reserve Officer Training Corps (NROTC) programs, we exceeded officer accession goals.

Our Officer Selection Teams are driven to find the highest caliber of officers, and focus on college campus markets for recruiting future officers through the Platoon Leaders Class (PLC) Program, and college seniors and graduates through the Officer Candidates Class (OCC) program. Our Corps makes every effort to ensure consistent quality for our future Officer Corps.

Our diversity representation throughout the enlisted and officer ranks remain an important priority. In FY13, we continued to progress MCRC’s efforts to diversify new officer accessions as the percentage of diversity officers accessed increased for the fifth straight year. The percentage of diversity accessions from PLC, OCC, NROTC, and the USNA also increased from FY12 efforts. MCRC saw an increase in the percentage of African American, Hispanic and Other minority officers accessed. The command also accessed 146 female officers, which accounted for 10.4 percent of all officer accessions.

MCRC also awarded the maximum allotment of four-year Frederick C. Branch Scholarships for the second consecutive year. In FY13, MCRC established the Pedro De Valle scholarship program, which will award four-year, three-year, and two-year scholarships to applicants accepted to one of three Hispanic Serving Institutions that have NROTC units or crosstown affiliations with units.

The All Community Approach (ACA) remains the beat that drives MCRC’s diversity battle rhythm in engaging the American public and increasing the Corps’ connectedness to the society we serve. MCRC remains committed to seizing every opportunity to increase awareness of officer and enlisted leadership opportunities available to qualified candidates in all American communities. With this determined approach, the MCRC team of professionals will assist our country’s future leaders to see our Corps as a primary option for national service to our great nation.

The results achieved during FY13 have upheld MCRC’s legacy of recruiting success. The same intensity, dedication, and commitment to achieving our mission - which has been the foundation of past success - will remain our guide for the future.

MARINE CORPS RECRUITING INFORMATION SUPPORT SYSTEM (MCRISS)

DESCRIPTION

MCRIS’ design improves the quality of information available by digitizing the entire enlistment process, and providing immediate benefits in man-hour savings by minimizing redundant data entry. The system also directly interfaces with and supports key Information Technology (IT) initiatives from the U.S. Military Entrance Processing Command by electronically scheduling applicants for processing and receiving electronic processing results. MCRISS interfaces with the Office of Personnel Management to ensure comprehensive security background checks on each applicant. MCRISS provides MCRC with a foundation from which to grow information systems such as, MCRISS-Recruiting Sub-Station (RSS), MCRISS-Officer Selection System (OSS), and MCRISS Prior Service Recruiting (PSR).

The deployment of MCRISS-RSS and OSS moved towards the automation of both the officer and enlisted elements of recruiting at the recruiter/Officer Selection Officer (OSO) level by organizing efforts and providing the framework for systematic recruiting.

Systematic recruiting establishes procedures for standardization, management/planning, training, and action by focusing the OSO, Staff Non-Commissioned Officer in Charge (SNCOIC), and recruiter on activities and programs, which are vital to effective recruiting. This effort will further eliminate redundant data entry and save our most valuable asset: time.

OPERATIONAL IMPACT

Time is the officer or enlisted recruiter’s greatest challenge and most precious asset. Only the number of qualified and quality individuals interviewed, contracted, and shipped to recruit training or Officer
Candidate School measures a Marine’s achievement and success on recruiting duty. MCRISS-RSS/OSS, coupled with solid skills, will in the approved systematic framework, organize a Marine’s day, week, and month, thereby saving time and making the demanding task of “mission accomplishment” more efficient and effective. The recruiter, armed with added organization, will conduct prospecting in an efficient manner, thus saving time and ensuring consistency in the execution of prospecting plans.

PROGRAM STATUS

Current endeavors include the creation of additional training tools, which focus on supporting all members of the recruiting command. FY14 efforts will include a hardware refresh and software upgrades. The hardware and software initiatives ensure that MCRC is leveraging industry best practices and can support the future growth and functionality of MCRISS. A mobile technology initiative is being discussed for late FY14 and beyond. The initiatives addressed in FY14 will result in a more efficient and effective system utilized by all elements within MCRC.

MARINE CORPS RETENTION

ENLISTED PERSONNEL

Enlisted retention achievements contribute to our Corps’ success in reaching key end strength milestones and ensuring the proper grade composition and experience levels in the enlisted career force. We continue to retain both first-term and subsequent-term enlisted Marines in order to shape the Non-Commissioned Officer and Staff Non-Commissioned Officer leadership required to meet AC end strength. In FY13, we achieved our desired end strength and enforced strict first-term boat-space caps. Retention goals will remain aggressive as we continue to shape our enlisted career force.

The Selective Reenlistment Bonus Program has aided reenlistment endeavors and improved retention for many of our critical skill shortages. Although our Selective Reenlistment Bonus Program greatly assists with retention, intangible attributes such as pride of service and satisfaction of leadership remain significant influences on retention. All of our Corps’ leaders must ensure Marines are educated on the importance of retention and our evolving retention policies and incentives. Leaders must emphasize the intangibles of service to aid quality Marines in their individual reenlistment decisions.

Career planners, who specialize and assist commanders in the retention of Marines, enhance our retention efforts. The Enlisted Career Counseling and Performance Evaluation Unit resident in the Enlisted Assignments Branch at Headquarters also aids retention efforts. The Marines in this unit provide career guidance to enlisted career Marines, performance evaluations on retention and retirement requests, and informational briefs to commands throughout our Corps. This unit also provides formal instruction on promotion and career progression to all academies, the Sergeants’ Course, Career Course, Advanced Course, and Infantry Unit Leaders’ Course.

OFFICERS

Our goal is to retain the best and most fully qualified officers in the right grades and with the right skills to provide the capabilities required in the operating forces. Historically, the aggregate officer retention rate has been 93.2 percent. For FY13, we achieved a retention rate of 92.5 percent. The drop in retention is directly attributable to the successful implementation of separation programs designed to assist in meeting end strength goals as our Corps continues to downsize.

Overall, officer retention is excellent. Shortages do exist in certain grades and skills, but we are taking actions to shape the composition of the officer corps properly. To this end, we have both monetary and non-monetary programs in place. All of these programs provide incentives to officers for continued service while retaining our flexibility to meet requirements across our Corps’ Total Force.

U.S. MARINE CORPS FORCES, RESERVE

(MAINTAINING OUR RESERVE COMPONENT)

Reserve Marines understand the need to protect the American way of life. Dedicated men and women continue to volunteer to serve their country in our Corps’ Reserve and share the sacrifices made by the Total Force in today’s conflicts. Our Reserve fills critical requirements supporting Overseas Component Operations and the needs of CCDRs worldwide. At home, Marine Forces Reserve maintains units and assets pre-positioned throughout the country ready to assist not only national defense missions, but also civil-military activities such as disaster relief.
Our Corps continues to meet the Reserve’s recruiting mission despite the current high operational tempo. Our Reserve accesses new Marines and prior services Marines at a rate of approximately 25 percent of the Selected Reserve’s end strength per year, which provides a continued capability to augment and reinforce the AC. The Direct Affiliation Program allows Marines to establish a seamless transition into the RC prior to the end of their active duty service by providing added benefits to the member.

The Reserve Officer Commissioning Program enables the RC to meet the demand for platoon leaders and company grade officers in our combat arms battalions. The percentage of company grade officers serving in SMCR units has nearly tripled since the program’s inception in 2007. This program, combined with the increased recruiting of all prior service officers and pilots through increased affiliation bonuses, inactive duty training travel, AC and RC transition opportunities, and primary Military Occupational Specialty (MOS) retraining, is providing the leadership needed in our SMCR units.

Our Reserve is a full partner of our Corps’ Total Force. Reserve Marines continue to prove their dedication to their country and fellow citizens. Their honor, courage, and commitment to warfighting excellence, while maintaining close ties to their community, truly set them apart as “citizen soldiers.” They will continue to serve as an integral part of our Total Force in accomplishing its assigned mission as America’s Expeditionary Force in Readiness.

CIVILIAN MARINES

Civilian Marines are a vital asset to our Total Force team, because they provide critical support and continuity in numerous areas throughout our Corps. At the end of FY13, the Civilian Marine workforce consisted of approximately 19,000 appropriated fund employees, 13,000 non-appropriated fund employees, and a small number of foreign nationals and others. The 1:10 ratio of our appropriated fund civilians-to-military is by far the lowest of all the services, and which have ratios of 1:2. Of these employees, 68 percent are veterans and 95 percent live and work outside the Washington, DC area. They are in big cities and small towns all across our Nation – building things, fixing things, and taking care of our Marines, Sailors, and their families.

Civilian Marines work in true partnership with Marines and play an important role in current combat operations, research and development, and acquisition. They provide invaluable assistance, especially to Marines returning from deployment and their families, as well as traditional services vital to base and station operations.

We are committed to having a civilian workforce equipped with the leadership skills and technical competencies necessary to meet all challenges, today and into the future. Through community management and career-development initiatives, Civilian Marines are able to remain a team of experts strategically integrated into the mission of our Corps. For instance, the Marine Corps Acculturation Program enables our civilians to learn and better understand their supporting roles, develop an appreciation of our culture and history, and learn how their work fits into our mission.

We maintain relations with eight federal unions representing nearly 17,500 Civilian Marines. Guided by the Federal Service Labor-Management law, we support a proactive labor relations program that manages strategies for effective communication, investigation, and establishment of work-life balance to create a more positive and effective workplace environment.
CHAPTER 3: PROGRAMS

PILLAR 2: UNIT READINESS

Photo Courtesy of Headquarters, U.S. Marine Corps
Section 1:
Keeping Faith with Marines, Sailors, and their Families
Introduction

We expect and require extraordinary loyalty from our Marines and Sailors — loyalty to country, family, and Corps. Our Nation has been at war for more than a decade, placing unprecedented burdens on Marines, Sailors, families, Wounded Warriors, and the families of the fallen. They have all made tremendous sacrifices, many in the face of danger. We owe our complete loyalty back to them all.

We will work to meet the critical needs of our families during times of deployment and in garrison by providing the services, facilities, and programs to develop the strength and skills needed to thrive while facing the challenges of operational tempo. Our Corps will seek out every possible resource to restore our wounded, injured, or ill Marines to health.

For Marines who desire to return to active duty, we will afford all opportunities to do so, and for those who are unable to do so, our goal is to transition them responsibly to civilian life. The Corps supports and protects the spouses and families of its wounded and its fallen Marines. It has been, and always will be a primary focus with several areas and programs central to our tenet of "Keeping faith with Marines, Sailors, and their families."
DEFENSE READINESS REPORTING SYSTEM-MARINE CORPS (DRRS-MC)

DESCRIPTION

DRRS-MC is our Corps’ next-generation authoritative data systems for operating force and installations readiness reporting. We function as part of the DRRS Enterprise (DRRS-E), a collection of approved hardware and software components culminating in a DoD wide web-based user interface. DRRS-MC merges resource-based (personnel, equipment supply, equipment condition, and training) and MET-based reporting to simplify the readiness reporting process. DRRS-MC has been a relatively low-cost, high dividend investment that has had a positive impact on the ability of Marine commanders to assess the operational readiness of their organizations.

OPERATIONAL IMPACT

DRRS-MC supports the Five Pillars of Institutional Readiness by allowing Marine commanders to submit complete, accurate, and timely readiness reports of their organizations to HQMC. The goal is to simplify and expedite the reporting process while maintaining the data and information integrity by using a streamlined information flow that begins and ends with an intuitive web-based interface.

DRRS-MC allows commanders to report unit readiness in terms of resources, ability to conduct METs, and overall readiness to execute a unit’s core mission and assigned mission(s). DRRS-MC also allows users to view current and historical readiness information using graphical user interface screens, which efficiently display readiness information. DRRS-MC is an executive information system that begins at a summary level and allows a “drill-down” view capability to access detailed readiness information.

PROGRAM STATUS

DRRS-MC went “live” on 30 April 2010 with the fielding of the Net-centric User Status Report (NetUSR) application. This application enables unit commanders to submit readiness reports containing both resource data and missions assessments. In FY10, we fielded the DRRS-MC’s Business Intelligence (BI) tool, and the Marine Readiness Management Output Tool (MRMOT), which enables the assessment of operating force and installation readiness with greater clarity.

In FY14, the DRRS-MC update will include an industry BI tool (IBM Cognos) that will replace MRMOT and allow greater user functionality. This update will also allow the BI tool to: flex with our ongoing structure and operational changes; be more cost-effective; align with BI tools mandated by DON and industry; and meet the Commercial-Off-The-Shelf (COTS) solution directed by Congress.

Additionally, DRRS-MC will be incorporated into and provide data to the Global Force Management-Data Initiative (GFM-DI) which is a JS and OSD led initiative to document the DoD authorized force structure. We expect DRRS-MC to reach FOC in FY14 with continual evolutionary system upgrades and updates.

MEDICAL READINESS REPORTING SYSTEM (MRRS)

DESCRIPTION

MRRS is our Individual Medical Readiness (IMR) reporting system. MRRS effectively standardizes the reporting of IMR and deployment health. MRRS also collects, tracks, and reports individual medical/dental readiness for both the AC and RC to ensure we meet DoD and Congressional requirements. MRRS is a low-cost, high dividend investment that has had a positive impact on the ability of Marine commanders to assess the medical readiness of their units.

OPERATIONAL IMPACT

Medical readiness reporting is a command responsibility, and MRRS allows Marine commanders to accurately and efficiently report the medical readiness of their units. MRRS data updates in real time, which allows commanders to gain immediate awareness on the deployment health status of their units, down to the individual Marine.

In addition to tracking units and IMR, MRRS provides the capability to track Marines and Sailors diagnosed with Traumatic Brain Injury (TBI) and those who have experienced concussive events that may produce TBI. This capability gives commanders the ability to monitor the status of Marines who have suffered a concussive event in combat or at a home station and ensure those Marines are referred to the appropriate health care provider. A similar application has been developed for Post-Traumatic Stress Disorder (PTSD).
CHAPTER 3: PROGRAMS

PROGRAM STATUS

MRRS has been operational since 2006. We are making minor enhancements to MRRS in order to meet Service, Joint, and OSD requirements for unit medical readiness visibility and IMR reporting. Future upgrades will allow us to track Occupational Health Standards to monitor compliance with initial, annual, termination, and specialty physicals.

MARINE AND FAMILY PROGRAMS

We are committed to providing Marines and their families with a comprehensive and effective support system, as home-front readiness correlates to mission readiness. Presently, 47 percent of Marines are married and 32 percent have children. With over 85,000 spouses and 114,000 children, there are nearly as many family members as active duty Marines. Nurturing the resiliency of families and children ultimately supports the readiness of Marines and is a priority of our Corps.

Marine and Family Programs collectively promote physical and mental wellness and are considered essential to meeting our operational objectives. The development of our programs sustains a constant state of readiness through a life-cycle continuum and ultimately enhances unit, personal, and family readiness. As wartime footing investments shift priorities, we will continue to build community capacity by maximizing the resources of public and private partners who share our commitment to serve Marines and their families. It is essential to ensure continued transparency by effectively communicating shifting benefits to Marines and their families. This transparency affords families with the opportunity to adjust their individual plans in order to maintain a consistent quality of life.

Our Family Readiness Programs strengthen and fortify Marines and families by providing:

- official unit communications
- readiness preparedness training
- information on and referrals to qualified helping professionals
- vital unit, installation, and community connection

Family Readiness Officers are also a critical component because they actively seek partnerships and leverage volunteer support to achieving these goals. Innovation remains a cornerstone of our Corps, and we continue to improve the social networking platform “eMarine” to provide more relevant and timely communications to our Marines and their families.

FAMILY SUPPORT PROGRAMS

Our Child, Youth, and Teen Program, Exceptional Family Member Program, and School Liaison Program aim to reduce the impacts of the military lifestyle, and support the care and development of our Corps’ children and family members with special needs. These programs focus on the resiliency, health, education, and well-being of our Corps’ children from birth to age 18. The Child, Youth, and Teen Program provides quality, safe, and affordable child care that promotes physical, social, emotional, and cognitive development. Services may be located on or off the installation and respond to the full day, part day, and hourly needs of our families. The Exceptional Family Member Program improves the quality of life of families that support a member with special needs by helping them gain access to medical, educational, and financial services. The School Liaison Program serves as the link between commanders, communities, schools, and families of military children in order to support school age children with relocations, life transitions, and academic success. These family care services encompass a continuum of care that allows Marines to focus on their missions.

INTEGRATED BEHAVIORAL HEALTH

The Behavioral Health Program is an integrated service delivery model that coordinates the efforts and resources of our behavioral health elements including Family Advocacy, Substance Abuse, and Community Counseling Program. The programs provide capacity for rapid identification of resources and assistance, which promotes the total fitness of our Marines and their families. Our Corps has a holistic approach to behavioral health issues, as it is often not one factor, but a combination of many, which may need addressing.

Due to more than a decade of sustained conflict, Marines experience considerable stress from multiple deployment cycles, the rigors of combat, high operational tempos, and the anxieties of separations. With the ongoing drawdown of deployed Marines, more and more Marines, Sailors, and families will need resources to meet their behavioral health needs as they transition back home.
Our Behavioral Health Program has reset its programs and prioritized its services to target Marines and improve our program capacity at the installation and unit level through enhanced professionalism of our workforce and accreditation oversight of programs. Part of this approach has been to increase the number of trained behavioral health personnel available to provide non-clinical counseling services and treatment. We have established a surge care capacity that has resulted in the expansion of the Military Family Life Consultant Program to provide confidential care in a unit or installation setting. Additionally, plans are underway to improve screening, preventive, and counseling services at Installation Community Counseling Centers. In FY14, we will be implementing the MEF Prevention Program, which aims to improve the fidelity and evaluation of our behavioral health prevention initiatives. Additionally, our DSTRESS line provides anonymous, 24/7 counseling services to Marines, Sailors, and their families.

Our Corps continues to focus on and improve suicide prevention. We are training Suicide Prevention Officers; partnering with U.S. Navy Medicine to provide coordinated care; and collaborating with federal agencies, academia, and private industry in areas of research to ensure our programs are evidence-based and effective in tackling this issue. The goal of our efforts is to ensure that Marines seek help, and receive effective care when needed. Our peer mentoring and bystander intervention training emphasizes that all Marines and Sailors have a responsibility to look out for one another and to assist someone who might be struggling.

Sustaining the wellness and optimal functioning of Marines, Sailors, and their families remains a top priority of our Corps. To succeed in this endeavor, our Behavioral Health Program is empowering leaders through training and awareness programs that strategically target common behavioral health risks and protective factors, and the program’s goal is earlier prevention and intervention. The recent development of Marine Total Fitness, a unifying framework that promotes a holistic view of health including mind, body, social, and spiritual elements, helps to guide the development of wellness. Our Behavioral Health Program’s efforts, in conjunction with engaged leadership, enhance unit, personal, and family readiness.

**WOUNDED WARRIOR REGIMENT (WWR)**

Wounded, Ill, and Injured (WII) Marines and their family members are among the finest individuals our Nation has to offer. Our debt of gratitude must be reflected in the quality of recovery care they are provided. A fundamental tenet of our Corps’ WWR is that care is not a process; it is a relationship. Our Corps operates under this principle through the WWR and will honor our enduring commitment to provide superior recovery care to WII Marines and their family members.

As the administrator of our Recovery Coordination Program, the WWR ensures WII Marines’ medical and non-medical care needs are fully integrated. In the broadest terms, this includes determining the degree of support required through case review and initial and continuous needs assessments, working with Marines and their families to develop recovery plans, and executing those plans for their return to duty or reintegration to their hometowns. WII Marines are well positioned for their future endeavors when they are able to successfully carry out their recovery plans. These Marines know that their best days are ahead of them.

The WWR provides direct recovery care support to WII Marines with catastrophic medical conditions or Marines who require high-level recovery care support. As a matter of course, these WII Marines are joined to a Regimental element. However, the CMC expects his commanders to be responsible for WII Marines whose injuries or illnesses do not require a complex level of support. Another function of the WWR is to ensure that our commanders have ready access to the information and resources they need to successfully meet the CMC’s expectations. The constant flow of information and communication between the WWR and the fleet in the form of briefings, social media, marketing and informational materials, and various types of outreach helps meet these expectations. The recovery phases are predictable –stabilization, rehabilitation, and reintegration. However, WII Marines’ individual recovery needs vary widely depending on many factors, including: medical acuity, individual goals, geographic location, and family dynamics. WII Marines should not receive support capabilities via a linear or segregated approach. Depending upon their assessed needs, WII Marines must receive the right
combination of support capabilities at the right time. For this reason, the WWR has evolved and integrated its support capabilities to be complementary, well balanced, and interdependent. All WWR components work in a multi-disciplinary fashion to ensure the best recovery outcomes for WII Marines and families. Some of the WWR’s care components are: Recovery Care Coordinators, District Injured Support Coordinators, Medical Section staff, Call Center Staff, pay and entitlements staff, family support staff, non-medical care managers, transition coordinators, and more. These components collaborate to optimize a WII Marine’s recovery. The WWR as a whole is greater than the sum of its parts.

Marines, their family members, and the public at large may rest assured that our Corps, through the WWR, will continue recovery care in times of war and during peacetime. Irrespective of the global security environment, recovery care support must be enduring in view of the catastrophic injuries resulting from the current decade of war. These injuries will require continuing services rather than short-term care. The WWR is not only reserved for combat-related injuries. The WWR is also for Marines who suffer from chronic unresolved illnesses and for Marines injured in the line of duty. Our Corps will continue to honor our enduring commitment to provide superior recovery care to WII Marines and their families, by operating under this principle.

SEMPER FIT AND RECREATION/EXCHANGE SERVICES

Support for our Total Fitness Campaign is through a partnership with the Semper Fit and Exchange Services programs. These programs support the social and physical cords of Marine Total Fitness, sustain a high quality of life and community health, and enhance our Corps’ mission, focus, and readiness.

Highlights of significant 2013 initiatives include the High Intensity Tactical Training (HITT) program, which is a comprehensive strength and conditioning program specific to optimizing physical performance and combat readiness for all active duty and reserve Marines. HITT takes functional fitness, strength, and conditioning to the next level for our Corps.

The Aquatic Maximum Power – Intense Training is another program currently operating aboard 15 of our installations, and focuses on pool running and workouts lasting 20 to 60 minutes. The workouts are low impact and easier on joints than running on a road. The program has been getting positive reviews from Marines who find it to be even more challenging than the more traditional workout.

The “For the Leathernecks” Comedy and Entertainment Unit Recreation Program is a unique event which brings comedians and musicians aboard our installations to perform free of charge. It has been popular with Marines and Sailors. These shows build esprit de corps and unit cohesion in support of our Total Fitness strategies. In 2013, there were 24 shows across our Corps with over 16,000 in attendance.

In 2013, Semper Fit expanded Operation Adrenaline Rush (OAR) in six additional installations and is currently operating at Marine Corps Air Station (MCAS) Yuma, Camp Lejeune, MCAS Cherry Point, MCRD Parris Island, MCAS Beaufort, MCAS Iwakuni, Camp Pendleton, MCAS Miramar, and MCAS New River. OAR assists Marines with reintegration after deployment by empowering small unit leaders, maintaining combat readiness, and reinforcing unit cohesion through high adventure, outdoor activities like white water rafting or rock climbing.

Building on the overarching community health of our bases and stations, numerous, additional valued services are provided from our high quality temporary lodging facilities where PCS Marines and their families can depend on affordable clean and comfortable accommodations, to leisure and recreation activities like youth and adult sports, auto skills, bowling, golf and swimming.

Our Marine Corps Exchange (MCX) strives to provide a high quality, consistent, on-brand shopping experience for Marines, their families, and all authorized patrons. MCX also supports leadership objectives, such as the 21st Century Sailor and Marine initiative, which the DON unveiled last year. The initiative, aims to increase resiliency within the DON, and focuses on five key areas: Readiness, Physical Fitness, Safety, Inclusion, and Continuum of Service.

MCX supports this effort in a variety of ways, such as limiting alcohol sales times and locations and instituting tobacco price parity. This effort also complements the DoD’s new Healthy Base Initiative and similar health promotion initiatives. This program supports the financial readiness of Marines and their families and offers items such as diapers, formula, baby food, bread, and milk at cost.
MCX remains conscious of the changing needs of Marines and families while seeking efficiencies and implementing best business practices. With MCX, Marines and their families can rely upon a high quality product, at a fair, competitive price, and know that the proceeds are investing in their community, strengthening our Corps, and enhancing overall community health.

**RELIGIOUS MINISTRY SUPPORT IN THE MARINE CORPS**

Since the Continental Navy of 1775, chaplains have provided religious ministry support to the U.S. Navy and our Corps. From the yellow footprints to the end of service, religious ministry in our Corps provides for the free exercise of religion; attends to the sacred, spiritual, and moral aspects of life; and serves to enhance the resilience of *service members, their families, and civilians who form the foundation of Marine Corps readiness*.

Unit commanders provide a Command Religious Program to accommodate the religious needs, preferences, and rights of the members of their commands, eligible family members, and other authorized personnel. Navy chaplains and Religious Program Specialists form a Religious Ministry Team organic to the command. Chaplains are the only personnel authorized to supervise religious ministry on behalf of commanders. Chaplains have four core capabilities:

- **Providing** faith group specific ministry through worship services, religious education, and other religious rituals and rites based on the chaplain’s specific professional credentials;
- **Facilitating** logistical support for the identified religious needs of authorized personnel from other religious traditions;
- **Caring** for all with dignity, respect, and compassion, regardless of an individual’s beliefs;
- **Advising** commanders and commands on the accommodation of religious needs; on the moral, ethical, and spiritual well-being of personnel; and on religious matters that affect the command’s mission.

Navy chaplains possess the unique capacity of absolute confidentiality. Information conveyed to a Religious Program Specialist for further communication to a chaplain is also considered confidential. The unconstrained ability to discuss personal matters in complete privacy encourages safe disclosure by personnel and family members seeking chaplain assistance. Such freedom establishes a sacred trust, facilitates increased morale and mission readiness, and benefits both the individual and the institution. Our Corps is strengthened when individuals and families have ready access to the confidential care chaplains provide.

Our Corps’ chaplain works with the Chief of Navy chaplains to direct spiritual fitness initiatives within our Corps. The Navy Chaplain Corps recognizes that spirituality, in a general sense, may refer to that which gives meaning and purpose in life. More specifically, the term may also refer to the practice of a philosophy, religion, or way of living. The Chaplain Corps identifies two primary expressions of spirituality: human and religious. Human expression refers to the essential core of the individual and includes activities that strengthen self and build healthy relationships. Religious expression refers to the application of faith and includes activities that connect one to the Divine, God, and the supernatural.

Chaplain Religious Enrichment Development Operations (CREDO) is a key Spiritual Fitness program offered by the U.S. Navy and is facilitated by Navy chaplains. In response to the unique challenges of military service, CREDO offers transformational retreat-based programs designed to assist authorized users in developing the spiritual resources and resiliency necessary to excel in the military environment. CREDO is spiritual in nature but not faith group specific, and provides a supportive venue where people of various backgrounds can strengthen their own spirituality. CREDO conducts a variety of...
and advice on matters relevant to their area of expertise. Chaplains and Religious Program Specialists often act as a first line of defense in preventing suicide. In their routine interactions in the unit, many pick up on signs from service members and family who are contemplating suicide and have successfully escorted these persons to appropriate mental health resources. The discreet and confidential relationship chaplains establish with all service members offers a safe venue where they can seek help and receive quality follow on pastoral care.

Keeping faith with our personnel includes comprehensive religious support for mission readiness whether forward deployed, in diverse training environments, or in garrison. Chaplains and Religious Program Specialists gladly embrace the privilege and honor continuing this unique heritage of support to the Marine Corps.

The Spiritual Fitness Guide is designed to help Marines and Sailors consider their spiritual fitness.

### Spiritual Fitness Guide

*This is a self-assessment tool to help service members consider their spiritual condition. Spirituality may be used generally to refer to that which gives meaning and purpose in life, or the term may be used specifically to refer to the practice of a philosophy, religion, or way of living.*

<table>
<thead>
<tr>
<th><strong>FIT</strong></th>
<th><strong>STRESSED</strong></th>
<th><strong>DEPLETED</strong></th>
<th><strong>DRAINED</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Potential Indicators</td>
<td>Potential Indicators</td>
<td>Potential Indicators</td>
<td>Potential Indicators</td>
</tr>
<tr>
<td>Engaged in life’s meaning/purpose</td>
<td>Neglecting life’s meaning/purpose</td>
<td>Losing a sense of life’s meaning/purpose</td>
<td>Feels like life has no meaning/purpose</td>
</tr>
<tr>
<td>Helpful about life/future</td>
<td>Less hopeful about life/future</td>
<td>Holds very little hope about life/future</td>
<td>Holds no hope about life/future</td>
</tr>
<tr>
<td>Makes sound moral decisions</td>
<td>Makes some poor moral decisions</td>
<td>Makes poor moral decisions routinely</td>
<td>Engaged in extreme immoral behavior</td>
</tr>
<tr>
<td>Fully engaged with family, friends, and community</td>
<td>Somewhat engaged with family, friends, and community</td>
<td>Weakly engaged with family, friends, and community</td>
<td>Not engaged with family, friends, or community</td>
</tr>
<tr>
<td>Able to forgive self and others</td>
<td>Difficulty forgiving self or others</td>
<td>Not likely to forgive self or others</td>
<td>Forgiveness is not an option</td>
</tr>
<tr>
<td>Respectful of others</td>
<td>Less respectful of others</td>
<td>Strong disrespect for others</td>
<td>Complete disrespect for others</td>
</tr>
<tr>
<td>Engaged in core values/beliefs</td>
<td>Straying from core values/beliefs</td>
<td>Disregards core values/beliefs</td>
<td>Abandoned core values/beliefs</td>
</tr>
</tbody>
</table>

Your chaplain cares about you and is committed to helping with your Spiritual Fitness. Absolute confidentiality is guaranteed.

Chaplain POC: The United States Navy Chaplain Corps

Current as of 2 May 2012
PERSONAL AND PROFESSIONAL DEVELOPMENT

As we reduce our end strength, more of our Marines and their families will be making the transition from the Corps to civilian life. Our Corps is committed to not only making the best Marines, but to providing Marines and families with the tools and resources to make this transition. Our Corps continues to commit to ensuring that all Marines are transition-ready through a Personal and Professional Development Program throughout their career in the Corps. Beginning at the point of recruitment, we strive to provide a continuum of tangible opportunities to support the performance or career goals of Marines and their families.

We are transforming our transition assistance programs so that they engage Marines throughout their military careers from recruitment, through separation or retirement, and as a veteran. Marines are receiving individualized and practical learning experience with specific transition readiness standards. Our Corps has also put into place pre-separation counseling to help Marines translate their military skills for the civilian workforce.

Our next phase will enhance outreach to those who require localized support through our Marine for Life Program and its representatives. This will help Marines develop and maintain local networks of Marine-friendly individuals, employers, and organizations.

The Marine for Life Network Call Center currently handles requests from over 10,000 transitioning Marines per year and connects them with thousands of employers, other organizations, and individuals who desire to assist Marines. Our Personal and Professional Development Program will also continue to focus on spouse employment by providing access to educational and professional development courses, and effective financial management strategies.

Our transition assistance approach enables us to better support Marines and families during their military service as they prepare for their eventual reintegration into civilian life. Transition will no longer be a culminating event to a Marine’s service, rather it will become a vital part of a Marine’s continuous personal and professional development from recruit to veteran. Our Marines and their families will return as quality citizens with a plan for success whether they choose to be reservists, students, business owners, or employees.

SEXUAL ASSAULT PREVENTION AND RESPONSE

Sexual assault erodes the trust between Marines and undermines our warfighting mission. Our goal is to build and fortify the trust between Marines, their leaders, and the American public to eradicate this crime from within our ranks. As such, our Sexual Assault Prevention and Response (SAPR) Programs have expanded to better reinforce our prevention and response efforts, while holding fast to the fact that one instance of sexual assault is one too many.

In June 2012, our Corps initiated the structure for the SAPR Campaign Plan to facilitate lasting institutional changes. The prevention of sexual assault is our primary effort and it begins when an individual walks into a recruiter’s office and continues throughout a Marine’s career. From peer-to-peer interaction at the unit level, to engaged leadership at the highest levels of command, we are actively working to raise awareness about what constitutes healthy relationships.

Ultimately, our Corps will not tolerate sexual assault and prevention rests with commanders, as they are accountable for setting a climate of trust and confidence. When sexual assault does occur, commanders and Victim Advocates ensure immediate access to medical, counseling, and chaplain services are readily available.

We have made significant advancements in our ability to hold sexual assault offenders accountable. Commander involvement and constructive dialogue will continue to be our greatest weapons as we provide Marines with faith that their command will protect them and respond properly when a sexual assault occurs. Engaged leadership remains the key to changing the culture that permits sexual assault in our ranks. With our collective efforts, we will ensure every Marine knows it is his and her duty to step up and step in, to stop sexual assault. The road ahead is long, but our commitment to combat sexual assault remains steadfast and unrelenting.
Section 2:
Equipping the Marine

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

The Individual Marine is the heart of our Corps and is trained, educated, and equipped to operate across the broadest spectrum of missions and tasks. Marines are optimal in crisis response and are equally capable in global engagement, irregular warfare (IW), or responding to larger worldwide threats.

Marine Ground Combat Forces are staffed with disciplined, highly trained, well-educated, and superbly led Marines who thrive in uncertainty, exploit chaos, solve complex problems through simple means, and take prudent, ethical, and decisive action. Our Marines’ armaments are superior weapons and equipment that enhance a shared understanding of the battlespace and enable rapid and coordinated action. We remain committed to equipping our Marines with the most advanced and capable equipment available.
CHAPTER 3: PROGRAMS

CLOTHING AND FLAME RESISTANT ORGANIZATIONAL GEAR (CFROG)

DESCRIPTION
Clothing and Flame Resistant Organizational Gear (CFROG) addresses current and future operational threats by improving combat uniform performance through improved concealment, flame resistance, and mitigated detection by battlefield sensors employed by potential adversaries.

The Flame Resistant Organizational Gear (FROG) capability set includes gloves, balaclava, Inclement Weather Combat Shirt (IWCS), blouse, and trouser. FROG product-improvement initiative includes a more durable flame resistant blouse and trouser, and a version in the Woodland Marine Pattern camouflage pattern. The CFROG program works closely with the Office of Naval Research to develop uniform and other material solutions to mitigate detection against adversary infrared and short wave infrared battlefield optics.

OPERATIONAL IMPACT
FROG supports forward deployed Marines in OEF and other OCOs. FROG has effectively reduced flame related injuries since its initial fielding during Operation Iraqi Freedom (OIF).

PROGRAM STATUS
FROG procurements are replaced through sustainment and support OCOs. FROG is post-Milestone C and has been fielded.

RECEIVING UNITS
- I MEF
- II MEF

DEVELOPER(S)/MANUFACTURER(S)
Multiple developers and manufacturers in the United States.

FAMILY OF BALLISTIC PROTECTION SYSTEMS (FBPS)

DESCRIPTION
FBPS provides our Corps with the most technologically advanced ballistic protection at the lightest weight. FBPS is a critical system that saves lives, reduces the severity of combat injuries, and increases combat effectiveness. Major FBPS programs include:

- Improved Modular Tactical Vest (IMTV)
- Plate Carrier (PC)
- Enhanced Small Arms Protective Inserts (ESAPI)
- Lightweight Helmet (LWH)
- Enhanced Combat Helmet (ECH)
- Improved Ballistic Eyewear (IBE)
- hearing protection

Smaller community oriented FPBS programs include Full Spectrum Battle Equipment (FSBE) for the Reconnaissance community and the Body Armor System Combat Vehicle Crewman (BASC) for the combat vehicle community. A key component behind the FBPS program is that, as new ballistics emerge on the battlefield, FBPS equipment will rapidly adapt to protect Marines.

Our PC is the armor Program of Record (PoR), and is a government-developed design that improves shoulder comfort and load carriage; incorporates an emergency release capability; and shares 95 percent commonality with the IMTV.
The Modular Scalable Protection System (MSPS) is our Corps’ initial effort to design and develop a fully integrated ballistic protective system for the individual Marine. We will develop the MSPS with a balanced emphasis on protection, integration, and mobility to encompass ballistic protection for the head, eyes, hearing, torso, pelvic region, and extremities.

This approach to ballistic protection incorporates the latest technologies to provide equal or greater protection to current systems and at reduced weight. The intent of the MSPS system is to improve ergonomics, load carriage, flexibility, and protection while reducing bulk and weight.

For integration with individual load bearing equipment, the focus is to develop novel approaches to integrate load bearing capabilities (packs and pouches) and power/data management with individual ballistic protection. The Marine Corps Load Effects Assessment Program (MCLEAP) provides measures to ensure MSPS returns mobility to Marines by establishing baselines for mobility with our current FBPS.

The Modular Scalable Vest (MSV) is the torso armor component of the MSPS and is under development. The intent behind the MSV program is to provide increased protection with no weight costs while simultaneously improving individual mobility and combat effectiveness through smart load management and integration capabilities.

The MSV provides the capability to scale between PC and IMTV protection levels with a single system while improving carriage and distribution of load to ensure full integration with the U.S. Marine Corps Pack System. The MSV will utilize both a lighter weight soft armor, which offers 10-15 percent weight reductions over current soft armor, and the Enhanced Capability Small Arms Protective Inserts (ECSAPIs), which provide increased ballistic protection at the current ESAPIs weight. In FY15, a limited user evaluation for MSV will take place with fielding to follow once funding becomes available.

The ECH provides improved Resistance to Penetration (RTP) compared to the legacy LWH and Advanced Combat Helmet (ACH). The ECH is made of an ultra-high molecular weight polyethylene (UHMWP) which provides improved ballistic protection at the same weight when compared to the ACH and LWH. Initial fielding is planned for FY14.

OPERATIONAL IMPACT

The FBPS provides incremental enhancement of individual components within the program as technological improvements become available while simultaneously ensuring integration with current and future fielding/development of more advanced Personal Protective Equipment (PPE). We are working closely with the U.S. Army, to develop, test, and field PPE tailored for dynamic operational environments.

PROGRAM STATUS

The FBPS equips the operating forces with technologically advanced and highly effective PPE. As technology advances, there is continual upgrade and replacement of personal protective systems based on battlefield user feedback and threat information. MSPS integrates armor requirements into one system and includes iterative product improvement and additions.

PROCUREMENT PROFILE

<table>
<thead>
<tr>
<th></th>
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<tr>
<td>ECH</td>
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</table>

DEVELOPER/MANUFACTURER

- NHRC, San Diego, CA
- MILTECH, Bozeman, MT
FIWE also supports the procurement of essential capabilities not supported in other lines.

PROGRAM STATUS

FIWE programs are in various phases of the acquisitions process, ranging from the EMD Phase to the Operations and Support Phase.
CHAPTER 3: PROGRAMS

OPERATIONAL VIEW

USMC Family of Individual War-fighting Equipment (FIWE)  
High-Level Operational Concept Graphic (OV-1)

OPERATIONAL IMPACT  
The FIWE provides Marines with individually issued items to enhance combat capabilities, reduce weight, increase energy efficiency, and provide unique capabilities to the operating forces.

RECEIVING UNITS  
- I MEF  
- II MEF

PROCUREMENT PROFILE  

<table>
<thead>
<tr>
<th>FY14</th>
<th>FY15</th>
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<tbody>
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FAMILY OF MOUNTAIN COLD WEATHER CLOTHING AND EQUIPMENT (FMCWCE)

DESCRIPTION  
FMCWCE increases the survivability, mobility, and lethality of Marines in mountainous and cold weather environments at altitudes in excess of 15,000 feet, and at temperatures as low as –25 °F. FMCWCE is a system of systems consisting of the cold weather clothing, gloves, footwear, sleep systems, climbing equipment, and mobility enhancement equipment.

In FY11, we identified the need to provide a more advanced, durable, strong, flexible, and light ski system along with an extreme cold weather boot system that fits with the current snowshoe and crampon. The new ski system and extreme cold weather boot incorporate the latest commercially available technologies to improve mobility, versatility, and ease of use.

OPERATIONAL IMPACT  
The FMCWCE allows Marines to operate at extreme altitudes and temperatures by providing the advanced clothing and equipment required to survive in harsh mountain cold weather environments.
include: magnified day optics, thermal imagers, image intensifying (I2) systems, lasers, and illuminators. This initiative supports research and development for future capabilities, such as:

- fused/multi-spectral (e.g., I2, thermal and short wave infrared);
- multi-purpose use (e.g., handheld and weapon-mounted) optical and laser systems;
- Human Systems Integration of Display Presentation.

OPERATIONAL IMPACT

FOSAM supports research, development, procurement, and sustainment of handheld, weapon-mounted, and helmet-mounted night, thermal, and day optical systems across our Corps.

PROGRAM STATUS

The majority of systems supported by this program are already fielded and in sustainment. Our focus is on conducting technology upgrades to keep these capabilities relevant. We are also coordinating next generation Joint Service weapons mounted optics requirements with U.S. Army Maneuver Center of Excellence.

RECEIVING UNITS

- I MEF
- II MEF

DEVELOPER(S)/MANUFACTURER(S)

- Trijicon, Inc., Wixom, MI
- ITT Exelis, Roanoke, VA
- L3 Warrior Systems, Londonderry, NH

FAMILY OF OPTICAL SYSTEMS AND MODIFICATION (FOSAM)

DESCRIPTION

FOSAM involves the research, development, and procurement of handheld, weapon-mounted, and helmet-mounted optical systems. These systems
CHAPTER 3: PROGRAMS

OPERATIONAL VIEW

Family of Optical Systems and Modification
High-Level Operational Concept Graphic (OV-1)

PROGRAM STATUS

The MEP Working Group includes core representatives from Plans, Policies and Operations, Marine Corps Combat Development and Integration, and MCSC.

Nominations for the MEP initiatives come directly from Marines in the Operating Forces via the website, email, and the Advocate, or through review of the U.S. Army’s Soldiers Enhancement Program for capabilities matching our need.

Nominated capabilities must focus on COTS or NDIs that can be executed quickly. The MEP initiatives for 2014 include: Patrol Planning C2 Software Package, MSPS, Enhanced Hearing Protection, and future submissions from Marines and Sailors.

Nominations for MEP can be submitted through: https://www.mccdc.usmc.mil/featuretopics/MEP

MARINE ENHANCEMENT PROGRAM (MEP)

DESCRIPTION

In 1989, the MEP stood up as a response to Congressional guidance for our Corps to establish programs dedicated to improving the lethality, survivability, and comfort, of the individual Marine. The primary focus of the MEP is on a rapidly fielded, low-cost, low-visibility materiel solution. MEP ensures improvements are identified quickly and transitioned into practical solutions for the infantryman.

An accelerated acquisition process leverages commercially available technologies to provide lighter, more improved “infantry items” to Marines as quickly as possible. It can take anywhere from 90 days to 2 years to test, modify, procure, and field the item to Marines in the operating force depending upon the timeliness, complexity, risk, and cost under the MEP.
OPERATIONAL IMPACT

Items fielded under the MEP seek to reduce the load, increase the survivability, enhance the safety, and improve the lethality of the infantryman across the spectrum of operational environments.

The infantryman is the primary user of the MEP’s systems. The MEP’s items may then transition to support other Military Occupational Specialties within the GCE (e.g., Combat Engineers and Artilleryman) and across the rest of the MAGTF (e.g., Supply, Maintenance, Administration, and Ordnance). Recently, the MEP has funded several critical programs including:

- Field Tarps
- FROG
- MTV
- Multi-Purpose Bayonet
- Rifle Combat Optic (RCO)
- Individual Water Purification Block I (Miox Pen)
- Tactical Unit Leaders Handbook
- Grip Pods for the M16 and M203
- Handheld Flashlight
- Three Season Sleep System
- Pocket Laser Range Finder (LRF)
- Marine Corps Pack
- Hearing Armour (hearing protection)
- Solar Portable Power System
- Vehicle Mounted Battery Charger
- U.S. Marine Corps Pack, Small Arms
- Collimator
- Patrol Planning Tool
- Improved Helmet Suspension/Retention System

OPERATIONAL VIEW

The Marine Enhancement Program (MEP) is dedicated to ensuring improvements for the individual infantryman are identified and quickly transitioned into practical solutions. The MEP achieves this goal through an accelerated acquisition process that utilizes commercially available technologies to quickly provide lighter, more improved “infantry items” to the Marines. Items procured and fielded under the MEP seek to reduce the load, increase the survivability, enhance the safety and improve the lethality of the individual Marine Infantryman across the spectrum of operational environments. The systems developed, procured and fielded by the MEP are primarily intended for the Marine Infantryman within the Ground Combat Element (GCE).
Section 3: Investing in the Education and Training of our Marines

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

We maintain PME and training programs that prepare Marines for the stress of combat operations and equip them with the skills to meet the challenges of life as a Marine. Our education and training curricula is founded on our core values, strengthens individual resilience, and supports a wide range of operational capabilities. We leverage competencies in entry-level and skills progression training, and emphasizing core competencies in combined arms and amphibious operations. Future training will also center on the MAGTF Training Program (MAGTFTP), which will develop the essential unit capabilities to conduct integrated operations. We are transforming the Marine Corps University (MCU) into a world-class institution and are widening opportunities in career-level schools for our company grade officers. We are likewise increasing junior enlisted and non-commissioned officer resident courses, and adding more distance education learning opportunities.
CHAPTER 3: PROGRAMS

TRAINING AND EDUCATION COMMAND (TECOM) ORGANIZATION

TECOM is located in Quantico, VA, and is a key component of Marine Corps Combat Development Command (MCCDC). TECOM’s task is to develop, coordinate, resource, execute, and evaluate training and education concepts, policies, plans, and programs to ensure Marines are prepared to meet the challenges of present and future operational environments. A description of the major subordinate commands (MSC) within TECOM that carry out this mission is below.

MARINE CORPS RECRUIT DEPOTS (MCRD) PARRIS ISLAND, SC AND SAN DIEGO, CA

The MCRDs are responsible for basic training also known as “Boot Camp.” Recruits are often cut off from the civilian world and inducted into our Corps’ lifestyle during this process, which is conducted over a 13-week period. Upon completion, recruits earn the title “Marine” and then move on to additional combat trainings, or other MOS, training.

TRAINING COMMAND (TRNGCMD)

TRNGCMD is located in Quantico, VA, and is our proponent for MOS individual-skill training. TRNGCMD analyzes, designs, develops, resources, implements, and evaluates standards-based individual training in order to provide combat capable Marines to the operating forces. TRNGCMD accomplishes its mission by exercising command over each of our formal schools, our detachments at other Services’ bases, and our Aviation Training Support Groups located across the United States.

EDUCATION COMMAND (EDCOM)

EDCOM is located in Quantico, VA and is also home of MCU. EDCOM is responsible for developing, delivering, and evaluating the PME programs through resident and distance education programs to prepare leaders to meet the challenges of the national security environment. EDCOM also preserves, promotes, and displays the history and heritage of our Corps through the History and Museum Division of the Marine Corps University and the National Museum of the Marine Corps (NMMC).

MAGTF TRAINING COMMAND (MAGTF-TC)

MAGTF-TC is located in Twentynine Palms, CA, and is responsible for designing, executing, and assessing MAGTFs and Major Subordinate Element level training exercises. MAGTF-TC conducts relevant live-fire combined arms training, urban operations, and joint and coalition level integration training that promotes OPFOR readiness.

COURSES AND FACILITIES

To remain America’s Expeditionary Force in Readiness, we require balanced, high quality training, and education at all levels. As history has repeatedly shown, the better-trained force, not necessarily the larger one, wins wars. In the midst of ongoing combat operations, we are re-aligning education and training efforts to enable Marines and Sailors to succeed in conducting distributed operations in increasingly complex environments against any threat. To meet these challenges, TECOM will provide the training, courses, and facilities that are responsive and relevant for preparing our individual Marines and our Corps’ units via targeted and progressive training, and continuous assessment.

Recent training has focused on preparing Marine units for combat, counterinsurgency, and stability operations in support of OEF. The past 10 years of combat have demonstrated that there is a positive correlation between quality training, education, and individual/unit readiness, which directly translate to operational success. Therefore, as we drawdown from Afghanistan, our training and education will re-balance to support the execution of a wider range of operational capabilities.

We will achieve this balance by leveraging competencies in entry-level and skills progression training and by re-emphasizing core competencies in combined arms and amphibious operations, IW, humanitarian assistance, and interagency coordination.
We are also making the investments necessary to implement the recommendations of the 2006 Officer Professional Military Education (PME) Study (The Wilhelm Report) to transform MCU into a “world-class institution.” These efforts will ensure that Marines are prepared to meet the challenges of post-OEF operational environments.

Our training and education programs will culminate with the MAGTFTP. Through a standardized training approach, the MAGTFTP will develop the essential unit capabilities necessary to conduct integrated MAGTF operations. Building on lessons learned over the past 10 years, this approach includes focused battle staff training and a service assessment exercise modeled on the previous exercise, Enhanced Mojave Viper. Additionally, we will continue conducting Large Scale Exercises (LSEs) that integrate training and assessment of the MAGTF as a whole. The MAGTFTP facilitates our ability to provide multi-capable MAGTFs prepared for operations in complex, joint, and multi-national environments against hybrid threats.

In order to fully realize these training and education enhancements, we will continue investing in the resources, technologies, and innovations that enable them. These investments include modernizing our training ranges, training devices, and infrastructure to ensure quality resources are available to support the training of Marines, from the individual to the MAGTF. We will also leverage advanced technologies and simulation systems to create realistic and fully immersive training environments.

**TRAINING**

**PRE-DEPLOYMENT TRAINING PROGRAM (PTP)**

**FORCE GENERATION PROCESS**

The force generation process provides a systematic, Service-wide approach to selecting, resourcing, and preparing units for deployment. The force generation process is conducted in five phases:

- **Phase I: Synchronize the force.** During this phase, service capabilities, capacities, and COMMARFOR estimates of supportability are assessed against CCDR operational requirements to develop force sourcing solutions for deployments, including standing crisis response forces.
- **Phase II: Generate the force.** During this phase, units identified to support operational deployments or standing crisis response force requirements begin pre-deployment planning, based upon a validated assigned Mission-Essential Task List (METL). COMMARFORs and MEF CGs identify the staffing, training, equipping, and resourcing requirements of units during this phase. HQMC assists operating force commanders in identifying solutions to resourcing shortfalls. Units are staffed and equipped to readiness goals in order to execute a plan.
- **Phase III: Ready the force.** During this phase, deploying units, task organized forces, and standing crisis response forces complement ongoing core MET training with assigned MET training and begin readiness reporting against an assigned METL. Units and forces conduct a mission rehearsal exercise (MRX) and are assessed in their demonstration of proficiency in the tasks and standards of the assigned MET. Units and forces conduct a mission rehearsal exercise (MRX) and are assessed in their demonstration of proficiency in the tasks and standards of the assigned MET. Units and forces conduct a mission rehearsal exercise (MRX) and are assessed in their demonstration of proficiency in the tasks and standards of the assigned MET. Training trend reversal reports, based upon unit assessments, are reviewed for recommended changes to improve force generation policies and procedures or warfighting capabilities training and readiness (T&R).
- **Phase IV: Deploy the force.** Operational lessons learned by deployed units and forces are reviewed for recommended changes to improve force generation policies and procedures. Standing crisis response forces with assigned METs are prepared to deploy or meet emergent CCD operational requirements. The remaining operating force elements are prepared to deploy for crisis response scenarios with core MET capabilities.
- **Phase V: Redeploy the force.** Post-deployment reports provided by redeployed units, task organized forces, or relieved standing crisis response forces are reviewed for recommended changes in force generation policies and procedures. Approved recommendations are implemented to refine the process and warfighting capabilities, and readiness of the operating force.
CHAPTER 3: PROGRAMS

Our Corps has developed an extensive PTP, nested in phase III of the force generation process, to prepare Marines for today’s operational environments. The PTP establishes a coherent progression of skill level training conducted by commanders and evaluated at PTP MRXs. Training is conducted in four nested “blocks” in ascending competency levels. MEF commanders determine what level of competency is required for each deploying unit based on mission-essential task analysis. MEF commanders set unit priority for service-level training events and ensure units participating in service-level training events have appropriate support attachments during respective blocks of training. The following training blocks comprise the PTP Continuum.

**BLOCK 1**

Block 1A and 1B training consists of Sustained Core Skills Training, Core Plus Skills Training, and Marine Corps Common Skills Sustainment Training. Core Plus Skills are those combat-focused skills that are environment, mission, rank, or billet specific. These skills are developed after a Marine is assigned to an operational unit. Block 1 training also includes formal schools training. Career progression training is critical to effective building block training, and the intent is for all incoming leaders to receive the appropriate schooling prior to beginning the unit’s collective training. For aviation units, Block 1 provides resident instructor development, certification, and sustainment of qualifications and designations of aircrews and maintainers for annual training requirements.

**BLOCK 2**

Block 2 training consists of Core Capabilities Training conducted within a unit. Core Capabilities are the essential collective functions a unit must be capable of performing during extended combat operations. Block 2 is company level and below training for battalion-sized units. Block 2 is Core Skills refinement and flight-leadership development, normally single-ship through division-flight operations for squadrons.

**BLOCK 3**

Block 3 training is based on unit METs and consists of Advanced Core Capabilities (or Core Plus for Aviation) Training conducted by a unit and by the unit’s higher headquarters. For battalion-sized units, Block 3 is battalion-level training. For aviation units, Block 3 is squadron-level training.

**BLOCK 4**

Block 4 training is battalion/squadron-level core competency training and is also known as the unit’s MRX. Block 4 training is a unit’s “graduation” PTP exercise and is individually tailored to support and assess a unit’s ability to perform tasks on its assigned METL. Battalion and higher deploying units will typically undergo a TECOM-supported MRX. Deploying units that do not participate in an MRX complete an alternate MRX that is supported by the parent MEF. The MRX provides information for the MEF Commanding General’s unit certification process.

**COMMAND AND CONTROL TRAINING AND EDUCATION CENTER OF EXCELLENCE (C2TECOE)**

**DESCRIPTION**

The Command and Control Training and Education Center of Excellence (C2TECOE) serves as our central agency for C2 training and education. In conjunction with appropriate TECOM staff sections, it provides integrated and timely coordinated solutions for validated C2 training and education requirements among TECOM, the Operating Forces, the Advocates, HQMC, MCSC, the Marine Corps Warfighting Lab (MCWL), and selected joint, service, and coalition agencies. Additionally, it identifies, tracks, and investigates the potential C2 training impacts of future MAGTF warfighting requirements and their influence on the C2 training and education continuum.

**OPERATIONAL IMPACT**

The C2TECOE provides AC and RC commanders, their staffs, and individual Marines timely and relevant standards-based, home station and mobile training team training in the art and science of C2 to enable them to act more decisively and effectively than the enemy. C2TECOE, as a branch of the MAGTF Staff Training Program (MSTP), works in concert with the following groups: Marine Corps Tactics and Operations Group (MCTOG); the Marine Corps Logistics Operations Group (MCLOG); and the Marine Aviation Weapons and Tactics Squadron One (MAWTS-1). This program advances the mastery of C2 in the Operating Forces through individual C2 operator and watch officer/watch chief and initial collective Battle Staff Training.
PROGRAM STATUS

The C2TECOE currently offers more than 20 programs of instruction through its MISTCs that support C2 operator, systems administrator, advanced systems courses, watch officer/watch chief courses and collective Battle Staff Training, with six more POIs under development. Additionally, it offers commanders C2 Systems overviews to acquaint them with the tools available to them in today’s digital Combat Operations Center (COC). The C2TECOE and its MISTCs effectively support the C2 training continuum from the individual Marine to the initial collective level that feeds more advanced collective training contained within the forthcoming service-level BSTP, ITX and LSE, all components of the MAGTFTP.

INTEGRATED TRAINING EXERCISE (ITX)

ITX is a 28-day full spectrum MRX that focuses on providing a service-level assessment of battalions and squadrons in preparation for deployment, and is conducted aboard the Marine Corps Air-Ground Combat Center (MCAGCC) in Twentynine Palms, CA. The exercise scenario allows units to combine their core Marine Corps competencies with mission specific capabilities. The exercise force composition consists of two infantry battalions, a combat logistics battalion, and three flying squadrons (fixed wing, rotary wing/tilt-rotor, and assault support). Throughout the exercise, units undergo training and assessment in offensive operations, defensive operations, and stability operations. Units deploying to Afghanistan also undergo training and assessment in counterinsurgency; various environments (desert, limited visibility, urban, and rural); and while exercising various command relationships (joint and interagency). Units are provided a live-fire, combined arms training venue that closely resembles the real-world conditions.

MOUNTAIN EXERCISE

Mountain Exercise is a 28-day, Block 3 MAGTF exercise conducted at our Corps’ MCMWTC at Bridgeport, CA. This exercise focuses on military mountaineering technical skills, and tactical operations across the warfighting functions, at medium to high altitudes in complex and compartmentalized terrain and in all weather conditions. The exercise is also conducted on the Lucky Boy Pass unimproved road network and the Hawthorne Army Depot (HWAD), Hawthorne, NV; and Ryan Canyon Road’s unimproved road network, and Naval Air Station Fallon, NV.
Mountain Exercise includes the following five phases:

- **Phase I: Preparation and Deployment.** This phase focuses on selected individuals attending the MCMWTC formal programs of instruction and conducts operations in mountainous, medium to high altitude, and in a cold weather environment. Phase I also includes the arrival of the units’ advanced and main body, pre-environment training, the staff participating in the Mountain Operations Staff Planning Course, and a communication exercise.

- **Phase II: Shaping.** This phase focuses on Basic Mobility, including military mountaineering mobility, survival and technical skills, and a company-platoon exercise.

- **Phase III: Decisive Action.** This Phase focuses on conducting offensive, defensive, joint, and coalition operations.

- **Phase IV: Security and Stability Operations.** This phase focuses on mounted/dismounted counter-improvised explosive device (IED) training patrolling operations, military operations on urban terrain (MOUT), cultural engagements, and limited combined arms company live-fire.

- **Phase V: Redeployment.** This phase focuses on retrograding the unit to its home station.

**TALON EXERCISE**

Talon Exercise (TALONEX) supports an infantry battalion’s participation in the semi-annual WTI course located at MCAS Yuma. This exercise is a service-sponsored training opportunity that provides training assessments for company level and below core METs. This exercise will evaluate an infantry unit’s combined arms capability within a live-fire environment. Simultaneously, infantry units will support the WTI course’s training objectives. The focus of this exercise is to provide four-weeks of tactical and horizontal MAGTF integration between the GCE and the ACE.

TALONEX allows participating battalions to train to company level offensive and defensive METs (Core METs) and conduct a Non-combat Evacuation Exercise (Core Plus MET). Currently, ranges surrounding MCAS Yuma cannot support battalion-sized live-fire Core MET training. These ranges are not comparable to those at MCAGCC Twentynine Palms, CA.

**MARINE CORPS TACTICS AND OPERATIONS GROUP (MCTOG)**

MCTOG was established in February 2008 under the cognizance of TECOM to implement the Operations and Tactics Training Program (OTTP). MCTOG is located aboard MCAGCC, Twentynine Palms, CA, and is a subordinate organization to MAGTF-TC.

MCTOG’s mission is to provide advanced training in MAGTF operations, combined arms training, and unit readiness planning at the battalion and regiment levels. MCTOG also synchronizes doctrine and training standards in order to enhance the combat preparation and performance of GCE units in MAGTF operations.

This training is provided in the form of a six-week Tactical MAGTF Integration Course (TMIC) conducted three times per year at MCAGCC, Twentynine Palms, CA in order to train officers and Staff Non-Commissioned Officers as Operations and Tactics Instructors (OTI) and Intelligence Tactics Instructors (ITI) for service in GCE units. Additionally, MCTOG serves as the institutional caretaker for the OTTP.

**OPERATIONS AND TACTICS TRAINING PROGRAM (OTTP)**

The OTTP increases combat effectiveness by developing a professional training culture, institutionalizing standardization, and accelerating innovation at all levels within the GCE.

The three pillars of the OTTP are the TMIC, the BSTP, and the synchronization of GCE Doctrine and T&R events. The desired end-state of the OTTP encompasses the following objectives:

- ensure full interoperability of GCE units through standardization of TTPs in publications and in practice in the operating forces;
- inculcate GCE companies, battalions, and regiments with a higher level of training
capacity and rigor across the warfighting functions;

• codify and provide the training requirements for key GCE staff members to build expertise in the training, preparation, and employment of GCE units on the complex battlefields of the future;
• ensure GCE doctrine, standards, training, and requirements to maintain pace with the changing threat environment and emerging operational concepts through mechanism implementation;
• enhance GCE unit preparation/performance in combat operations.

TACTICAL MAGTF INTEGRATION COURSE (TMIC)

MCTOG conducts the TMIC, the umbrella course, which contains four separate Programs of Instruction supporting the training of: GCE Operations Officers, Operations Chiefs, Intelligence Officers, and Intelligence Chiefs.

The TMIC is the method used to train and certify OTIs and ITIs for the GCE. Key GCE Officers and Chiefs must be certified as OTIs or ITIs prior to receiving an assignment to their designated billets.

OTIs and ITIs are proponents of standardization, and as such, assist the commander in the preparation of the unit for any operational environment across the ROMO.

These key-trained individuals assist their commanders with the identification of unit-specific training requirements and deficiencies as a result of the evolving operational and threat environments as well as the planning and execution of any mission executed across the ROMO.

OTIs and ITIs support the GCE by being:

• master training designers able to implement and manage the Unit Readiness Program;
• skilled in the art and science of planning and executing operations in complex environments;
• skilled in the art and science of C2 across the ROMO;
• proponents of standardization to enable integration and interoperability with external organizations and enablers;
• advocates of best practices, lessons learned, resources, and emerging concepts.

BATTLE STAFF TRAINING PROGRAM (BSTP)

MCTOG’s BSTP support is the continuation of the lower level collective and individual training units can leverage at their local MAGTF Integrated System Training Center (MISTC). This support is the method by which MCTOG assists commanders, OTIs, and ITIs in training their units in advanced collective (Battle Staff) C2. BSTP prepares units to: integrate service, joint, interagency, and coalition assets in support of their approved METL during deployment. BSTP uses tailor able unit academic packages, exercise support, and over the shoulder subject matter expert support for the OTI/ITI to train their unit battle staffs either at the MCTOG Battle Lab or at Home Station Training. MCTOG’s focus is on the regimental, battalion, and company level commander and staff in C2 with specific emphasis on Problem Framing, Information Management, Assessment, and integration of non-organic assets and enabler support encountered in the current and future operating environments. MCTOG’s BSTP support includes the following:

• academic packages in support of the unit OTIs and ITIs specifically tailored to the unit’s training needs and approved METL;
• training venue support offered at home station or at the MCTOG Battle Lab aboard MCAGCC;
• Block 3 or Block 4 (Mission Rehearsal) Command Post Exercises (CPX) support tailored to the unit’s approved METL and anticipated operating environment;
• OTI/ITI access to a resource library of SOPs, best practices, and training resources.

SYNCHRONIZATION OF GCE DOCTRINE AND TRAINING AND READINESS (T&R)

The MCTOG is the critical link between the GCE Advocate (DC PP&O) and the means by which the doctrine, TTPs, training standards, curricula, and
Chairman Joint Chiefs of Staff J7, leverage several joint initiatives which incorporate Joint, interagency, and multi-national training context into dynamic, capabilities based training in support of Service and national security requirements.

**MARINE CORPS LOGISTICS OPERATIONS GROUP (MCLOG)**

MCLOG provides a capability similar to MCTOG and MAWTS-1 for logisticians and logistics units in the operating forces. When fully operational, MCLOG will provide advanced, standardized training in tactical logistics operations, conduct collective battle staff training, manage logistics education programs, synchronize logistics doctrine, and consolidate TTPs.

The Logistics Tactics, Training, and Education Program (LTTEP), provides policy and assigns responsibilities for MCLOG’s execution and management of training and education programs. MCLOG is tasked to execute the following tasks per the LTTEP:

- provide advanced individual training for logistics officers and chiefs to prepare these individuals for assignment as Operations Officers and Operations Chiefs (and for other critical logistics billets within the MAGTF);
- serve as the lead for the LCE and BSTP, which are synchronized within the larger TECOM BSTP. TECOM BSTP was established by the MAGTFTP and provides COC specific collective training based on METs for MLG’s, CLR’s, CLB’s, ESB’s, and other ground logistics units;
- establish MCLOG as a critical element through which logistics doctrine, TTPs, collective training standards, curricula, and institutional training programs are maintained and managed.

The LTTEP requires all LCE Operations Officers and Operations Chiefs at the battalion and regimental level to be certified as an Expeditionary Logistics Instructor.

**JOINT, INTERAGENCY, AND MULTI-NATIONAL (JIM) TRAINING**

The Training and Education Command (TECOM), the Office of the Secretary of Defense (OSD), and the Chairman Joint Chiefs of Staff J7, leverage several joint initiatives which incorporate Joint, interagency, and multi-national training context into dynamic, capabilities based training in support of Service and national security requirements.

**JOINT TRAINING**

Through the OSD sponsored Joint National Training Capability (JNTC), TECOM addresses specific joint training shortfalls through the establishment of our JNTC-accredited programs. JNTC-accredited programs include:

- MAGTF TC: Twentynine Palms, CA
- MAWTS-1: Yuma, AZ
- MSTP: Quantico, VA
- MCMWTC: Bridgeport, CA
- MCTOG: Twentynine Palms, CA
- MCLOG: Twentynine Palms, CA (MCLOG will be JNTC-accredited in 2014)

JNTC provides several tools that support the incorporation of joint training into Service Title 10 responsibilities. One of these tools is the Joint Training Enterprise Network (JTEN). The JTEN is the exercise/training communications network for JNTC.

The JTEN is a high capacity, reconfigurable network that supports joint training exercises, and the evaluation of new warfighting concepts. It allows inter- and intra-Service forces to link “Service owned” training and simulation networks to train simultaneously in a live, virtual, and constructive environment (LVC-TE). This enables our Corps to blend live tactical forces with manned simulators and sophisticated computer models. A second tool sponsored by the JNTC is the Joint Training Coordination Program, which assists our JNTC-accredited programs in replicating the “joint environment” by gaining participation of others services in our Corps’ training and exercises.

**INTERAGENCY COOPERATION AND TRAINING**

TECOM leverages interagency participation such as subject matter expert attendance at pre-deployment training to increase realism and meet mission-training standards at JNTC-accredited programs. TECOM is partnering with the State Department’s Foreign Service Institute to enhance Civil-Military training at the policy, strategic, and tactical levels in future LSEs. Through efforts with the U.S. Agency for International Development, the Marine Corps Civil-Military
operations school, and MCTOG, deploying units are trained in the use of the district stability framework assessment tool, which assists commanders with identifying the root causes of instability in their location, and target efforts to address these problems.

In keeping with our corps’ campaign plan annex V, interagency integration strategy, TECOM headquarters disseminates information to our units on training offered through U.S. government agencies, such as the joint humanitarian operations course. This effort intends to make all applicable training, civilian and military, more accessible to Marine units. TECOM assisted the state department’s bureau of conflict and stabilization operations by establishing an agreement between the DOS and Marine corps base (MCB) Quantico that allows the agency to execute a civilian capstone exercise utilizing range facilities aboard the base at Quantico.

MULTINATIONAL TRAINING

Coalition partners are invited to participate in service-level training when feasible and relevant. One focus area is operational level interaction, primarily through coordination and reciprocal participation in MRXs with partner nations where our units will serve as higher headquarters during current operations.

Additionally, staff and instructor exchange programs in respective training organizations are pursuing institutional-level interoperability. Events such as the LSE, ITX, TMCIC, and weapons and tactics instructor (WTI) are also frequently pursued and exploited in order to incorporate coalition partners into the Marine corps’ air ground task force training program (MAGTFTP).

MAGTF TRAINING PROGRAM (MAGTFTP)

TECOM has developed the next generation of training for marine operating forces to prepare for future fights and operating environments. The MAGTFTP establishes, defines, and integrates the requirements for training programs and resources that will facilitate the development of warfighting capabilities in the OPFORs, which comprise a MAGTF.

BATTLE STAFF TRAINING PROGRAM (BSTP)

The BSTP provides training to battle staffs across all the elements of the MAGTF, from a battalion or squadron, to MEF level. Most importantly, the BSTP integrates individual and collective training, provided by multiple organizations from across TECOM, into a single training continuum, which begins with the training of C2 systems operators, and concludes with a CPX that tests the abilities of the entire staff. The BSTP provides the commander with an invaluable tool to assist in the training of his staff, and a detailed understanding of the full staff training continuum.

INTEGRATED TRAINING EXERCISE (ITX)

The ITX provides a battalion/squadron-level collective training and assessment event, which supports training in skills required to accomplish assigned core METs. ITX also serves as the service-level assessment of a unit. This program is similar in scale to the type of combined arms training that was conducted prior to OIF and OEF, and exercises like the Mojave Viper PTP. This program also includes all elements of the MAGTF including command, ground combat, logistics combat, and ACEs. ITX also provides training on the techniques of MAGTF integration at the tactical level and the technical skills allowing subordinate units of the MAGTF to work together.

LARGE SCALE EXERCISE (LSE)

The LSE is a MEB/MEF-level exercise program that uses live-virtual-constructive training linked through a supporting network across the United States and, based on scenario design, outside the continental United States with amphibious forces afloat, or ashore, to focus on the integration of headquarters organizations and their ability to conduct integrated MAGTF operations. LSE’s are also used as the final pre-deployment training event for a MAGTF that has been designated to deploy, or it will serve as an exercise to validate the ability of the MAGTF to execute designated core mission-essential tasks, depending on requirements of the MEF commander. The LSE will increase joint and amphibious capabilities as our Corps reconstitutes its full amphibious capability.

AMPHIBIOUS CORE TRAINING

We are developing and refining key training programs in order to continually invigorate our amphibious capability. TECOM is preparing individual Marines through training and education at the Marine Corps Expeditionary Warfare School (EWS), the Marine Corps Command and Staff College (CSC), and various courses at the Expeditionary
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Warfare Training Groups Atlantic and Pacific, such as the Type Commander Amphibious Training. We will prepare the MAGTFs by training alongside the U.S. Navy through such exercises as amphibious landing exercises and MEB-level exercises.

EDUCATION

MARINE CORPS UNIVERSITY (MCU) AND PROFESSIONAL MILITARY EDUCATION (PME)

The MCU, also known as Education Command (EDCOM), oversees a series of schools that Marines attend progressively throughout their careers, regardless of military occupations. Incorporating teaching approaches common to any higher education institution, the combined military and civilian professor faculty strives to foster critical thinking and decision-making skills through a balance of directed readings and writings, guest lectures, historical case studies, small-group discussions, military planning exercises, and shared experiences. The Commission of Colleges of the Southern Association of Colleges and Schools has accredited the MCU to award three masters degrees.

MCU is the PME advocate for our Corps, and is charged with developing, implementing, and monitoring PME policies and programs and educating the force. The design of the progressive PME learning system educates Marines by grade throughout their careers. PME programs consist of resident and non-resident instruction, professional self-study, and the CMC’s professional reading program.

Resident programs present a unique learning opportunity in that they allow sister service, interagency, and foreign service students to participate in the education and exchange of ideas with Marine students. Non-resident programs are also critical to the education of the force, as the majority of officer and enlisted Marines pursue education via distance education rather than resident instruction. The main campus of MCU is located at Quantico, VA, and consists of the following officer PME schools and colleges:

- EWS for captains
- CSC for majors
- College of Distance Education and Training (CDET) for officer and enlisted distance education programs
- School of Advanced Warfighting (SAW) for advanced intermediate level majors
- Marine Corps War (MCWAR) College for lieutenant colonels

In 2010, MCU will offer the first Senior Planners Course for colonels. In 2011, MCU introduced a Reserve Senior Staff Course (RSSC) for lieutenant colonels and colonels. The RSSC also has included master/first sergeants and master gunnery sergeants/sergeant majors.

Six regional Staff Non-Commissioned Officer Academies worldwide conduct enlisted resident education programs that offer the Sergeants, Career, and Advanced Courses. In 2008, the Senior Enlisted PME Course was introduced for master sergeants/first sergeants. In 2013, MCU added two new senior level enlisted PME courses to the enlisted resident education, and the Sergeants Major Course.

The curricula of both the resident and non-resident education programs will continue to address MAGTF proficiency in the core warfighting functions of combined arms, amphibious operations, and Maritime Pre-Positioning operations, in addition to developing and expanding the Corps’ IW and counterinsurgency capabilities. MCU is implementing the 35th Commandant Marine Corps Planning Guidance by further developing the University into a world-class institution and expanding opportunities for officer and enlisted PME.

The revision of enlisted PME programs ensures that resident and non-resident programs are coordinated, relevant, and meet the needs of the operating forces. By 2014, CDET will have completed the development of a new series of distance learning products for enlisted Marines (lance corporal – gunnery sergeant).

The Career Course for Staff Sergeants will have an online pre-work component on MarineNet. Once completed, staff sergeants are qualified to attend either the Senior Non-Commissioned Officer (SNCO) Academy or an onsite seminar similar to the current officer PME distance education programs.

CDET has expanded the Blended Seminar PME...
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CDET’s enlisted PME programs, all but the Career Course for Staff Sergeants, are currently fielded on MarineNet, and will impact the Corps’ enlisted leaders (lance corporal – gunnery sergeant).

MarineNet courseware facilitates career progression and expedites the training process by granting rapid online course enrollments and completions. Test scores are available immediately and students are able to print courseware completion certificates online.

Student activity is electronically entered into our Total Force System via the Marine Corps Training Information Management System (MCTIMS) database, which provides promotion points, self-education bonus points and reserve retirement credits. To meet the access requirements of the OPFOR, CDET has fielded 42 Learning Resource Centers (LRCs) to the major MCBs and stations. Available electronic courseware products provide training and education for:

- pre-deployment
- annual training requirements
- military occupational specialties
- culture and language
- PME (Officer and Enlisted)
- business skills
- IT courses

OPERATIONAL IMPACT

MCDLP contributes to operational readiness by providing all Marines with immediate access to any required pre-deployment training, MOS common skills training opportunities, and PME. Distance learning capabilities fill critical gaps in the training and education continuum.

MCDLP is able to reduce the amount of time Marines are required to be away from their home duty station attending formal training, and ensure standardized training across our Corps. MCDLP gives the commander a consistently better-trained Marine while increasing personnel availability.

PROGRAM STATUS

Throughout our Corps, 42 LRCs have been fielded and are currently operational. The MCDLP is in the acquisition sustainment phase.
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TRAINING AND EDUCATION ENABLERS

MARINE CORPS TRAINING INFORMATION MANAGEMENT SYSTEM (MCTIMS)

MCTIMS is our emerging enterprise information system for training development and management. An official PoR with MCSC oversight, MCTIMS’s web-enabled applications work in concert with Oracle databases containing our training information to provide integrated applications that serve all of our Corps’ training development and management needs.

MCTIMS is the authoritative data source for all training data, generating, maintaining, sharing, and reporting training data as required by our other service-level systems. Early MCTIMS developments directly supported the mission of TECOM to provide entry-level trained Marines to the operating forces and supporting establishment. In the near future, units will use MCTIMS to develop the units’ training plans, training schedules, and record training achievements.

MCTIMS is a government-owned software application that is available for use by the total force. The system standardizes our Corps’ training development and management by aligning to the Systems Approach to Training process.

TRAINING & READINESS (T&R) DEVELOPMENT MODULE

The T&R Development Module is the backbone of the MCTIMS suite of modules. This module is used during T&R Development and Review Conferences to build or maintain individual and collective events and manage T&R data. The TECOM and EDCOM staff uses this web-based application to capture the individual and collective training standards for an occupational field and MOS to produce the T&R manual. T&R Manuals provide commanders in the Operating Forces, Supporting Establishment, and formal learning centers with a tool for the planning and implementation of progressive training that ultimately ensures individual and collective proficiency.

MILITARY OCCUPATIONAL SPECIALTY (MOS) MANUAL MODULE

The MOS Manual Module supports TECOM’s Ground Training Branch mission to manage the MOS Manual for our Corps. This module provides the capability to store web-based MOS Manual data to expedite the annual review and reduce the labor associated with management of the MOS Manual.

MOS ROADMAP MODULE

Use of this web-based application guides individual Marines on career training and education. Roadmaps are single-source documents containing grade-specific information related to training and education requirements from which Marines can make informed career decisions regarding assignment, training and education requirements, and career progression opportunities. Leaders use the roadmap as an aid to counsel and mentor subordinates.

UNIT TRAINING MANAGEMENT (UTM) AND INDIVIDUAL MARINE MANAGEMENT (IMM) MODULES

The UTM and IMM modules are the latest MCTIMS development efforts designed to provide direct support to the Operating Force. The UTM module provides commanders with a toolkit that aligns with the UTM process outlined in Marine Corps Reference Publication (MCRP) 3-0A, the UTM Guide. This capability enables commanders and their staff to execute doctrinal UTM practices via an automated system. Other capabilities within this module will allow units to record, track, evaluate, and report all individual and collective training requirements.

ADDITIONAL MCTIMS DEVELOPMENTS TO SUPPORT THE MARINE CORPS

Two additional MCTIMS developments fielded during FY11 are the Curriculum Library and the Electronic Training Jacket (ETJ). The Curriculum Library provides Marines in the operating forces access to formal learning center course materials to support training and standardize instructional materials throughout our Corps. Marine operating forces will be able to access lesson plans, student outlines, instructor preparation guides, and media to support unit training requirements. The ETJ provides a cradle-to-grave record of all training accomplishments for all Marines viewable by the individual Marine or their commander.

OTHER FORMAL SCHOOL MANAGEMENT CAPABILITIES

The Curriculum Management Module (CMD): TECOM staff and schoolhouse curriculum developers
use this web-based application to create and manage curriculum for our Corps’ formal schools.

The use of this module is mandated for the production of our programs of instruction.

The Student Evaluation (SEV) Module: TECOM staff uses this web-based application to construct tests, record test data, track student scores and grade point averages, and generate reports. The SEV module controls the synchronization of this data with an external application. SEV is also used to create survey questionnaires and track student responses.

The Student Management Module: TECOM staff uses this web-based application to manage rosters, units, and individual students for our formal schools.

Student Registrar: The Student Registrar Module is managed by the Formal School Training Division, TECOM. The TECOM staff uses this web-based application to manage class rosters and student registrations.

MODELINGANDSIMULATIONS(M&S)

TRAINING AND EDUCATION ENABLERS

The MAGTF Training Simulations Branch (MTSB) has established a training modeling and simulation community of interest to facilitate information exchange and address specific focus areas, such as infantry skills simulations and staff training environment. MTSB also addresses simulation system integration, interoperability, interconnectivity, compatibility, and networking. This forum draws participants from across our Corps and the S&T community. With this forum’s input, TECOM has published the Training and Education Modeling and Simulation Master Plan. The purpose of the plan is to inform Marines and other stakeholders of current and future efforts pertaining to training simulations and to guide the development and sustainment of effective simulation-based training in support of the operating forces.

Small unit training is receiving particular focus by TECOM to prepare the Marines of today and tomorrow for operating environments. The Squad Immersive Training Environment (SITE) program will significantly enhance collective training for the squad. SITE is envisioned as a multi-faceted “toolkit” of integrated live, virtual, and constructive training capabilities that commanders can leverage to train their small units at all points along the training continuum. The SITE “toolkit” should include current virtual and live training systems appropriate for small units, and future capabilities that leverage emerging technologies.

TECOM has participated in numerous joint initiatives focused on immersive training at the squad and platoon levels. In support of the Enhanced Company Operations (ECO) concept, MTSB is examining the networking and interoperability of selected staff training, combined arms, combat convoy, combat vehicle, and aviation simulation systems to enable better training capabilities among critical MAGTF building blocks. The emerging Small unit Integrated Training Environment (SuITE) program will integrate these efforts to provide the domain for ECO.

TECOM received approval to integrate the MAGTF’s Tactical Warfare Simulation system into the joint live, virtual, and constructive (JLVC) federation. This incorporation will provide higher simulation fidelity of MAGTF and amphibious operations in joint exercises and enable us to better leverage the many JLVC tools to support Service training and CCDR regional engagement exercises. TECOM is pursuing appropriate linkages among our Corps’ existing simulations to provide capabilities that are more robust. TECOM is also examining simulations that address political, military, economic, social, infrastructure, and information issues.

Finally, the MROC approved TECOM’s LVC-TE ICD that outlined desired LVC-TE capabilities. This analysis identified gaps in our ability to network current capabilities and delineated integration standards for future capabilities. TECOM is further examining networking requirements to link simulation systems with each other, with live domain capabilities, and provide access to our existing JIM partner training and modeling simulation networks. Such a network would support distributed training venues between MAGTF elements, enable large scale MAGTF exercises, and facilitate our participation in future joint and other exercises.

MISSIONCAPABLETRAININGRANGES

Our combat readiness depends on the continued availability of Ranges and Training Areas (RTAs) that
provide opportunities for realistic, mission-oriented training in multiple, complex environments. To this end, TECOM continues to execute the comprehensive Mission capable Ranges Program.

The purpose of Mission capable Ranges is to plan, program for, and execute the development, modernization, and sustainment of RTAs, and the delivery of comprehensive range services and training support to the warfighter.

Mission capable Ranges are requirements-driven, incorporating standards articulated in MCRP 3-0C Operational Training Ranges Required Capabilities, and requirements-based assessments of the capabilities of RTAs.

TECOM has established six cornerstone objectives for Mission capable Ranges, including:

- preserve and enhance the live-fire combined arms training capabilities of MCAGCC/MAGTF TC, Twentynine Palms, and MCAS Yuma Range Complex;
- re-capture and enhance MAGTF and unit training capabilities of our Nation’s two premier littoral training areas, Camp Lejeune and Camp Pendleton;
- leverage technology to support every level training with a goal of providing timely and objective feedback to the training audience;
- honor our commitments to protecting the environment, while preserving and enhancing our ability to conduct live-fire and maneuver training;
- facilitate cross-Service employment of our training ranges, and ensure our access to other Services’ ranges;
- support the JNTC with the common range infrastructure and systems architecture to ensure effective Joint training.

Mission capable Ranges provide our Corps with a comprehensive, fully developed strategy for providing modern RTAs and related services and focuses on the current and future needs of the warfighter. The cornerstone of the program is range modernization through:

- sustainment of ranges to maintain capabilities and protect range investments
- re-capitalization to upgrade or replace existing ranges and range resources
- investment in new ranges that leverage advanced range instrumentation, targets, and training systems

In recent years, the program has focused primarily on range modernization at the installation level and on assessing and supporting initiatives to address long-term requirements for sufficient land area and airspace for training.

At our installations, Mission Capable Ranges have delivered the range resources to support training requirements emerging from the theaters of operation, particularly those relating to urban and counter-IED tactics. Since 2006, the program has made unprecedented investments (approximately $800 million) in our Corps’ training infrastructure.

As we look to the future, the program will increase its focus on realistic, immersive training environments for our Marines using integrated systems for tactical engagement, range instrumentation, interactive targets, threat simulators, and after-action review.

Additionally, TECOM has initiated a comprehensive effort to field Training Support Centers at our major training bases to facilitate efficient and effective utilization of the full suite of RTAs and other training resources by the operating forces.

Mission capable Ranges have focused on three shortfalls with regard to service-level initiatives:

- the inability of our Corps’ ranges to fully exercise a large MAGTF in a realistic, doctrinally appropriate training scenario;
- inadequate training opportunities for the Marine units stationed in the Western Pacific and Hawaii;
- inadequate aviation training facilities on the east coast of the United States with range capabilities such as those provided by MCAS Yuma on the west coast.

TECOM will continue to focus on meeting these deficits. Concurrently, TECOM will engage in forward-looking initiatives as it confronts future challenges to RTA capabilities, including potential limitations on resources available for range modernization and sustainment.

Sufficient commitments to sustaining and enhancing range capabilities are necessary to ensure RTAs continue to support the training requirements of our Corps.
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RANGE MODERNIZATION/TRANSFORMATION (RM/T)

DESCRIPTION
RM/T provides a comprehensive program of training systems and services that support live training on ranges and training areas and is the primary Program of Record that supports the Mission Capable Ranges concept. RM/T modernizes and transforms ranges through targeted investment, recapitalization of assets, and sustainment of existing capabilities. RM/T acquires systems and training environments that support both live-fire and force-on-force training events and provides services for training support, range management and safety, life-cycle sustainment of systems, and range clearance.

The RM/T program modernizes our major live training ranges with a dynamic training system capable of real-time and post-mission battle tracking, data collection, and the delivery of value-added after-action reviews.

Interface with installation C2 training centers — including the Battle Staff Training Facility, Combined Arms Staff Trainer, and Battle Staff Simulation Center — will facilitate the production of multiple scenario events that deliver relevant and realistic training.

The fielded capabilities integrate live and simulated training technologies to actively enhance live-fire, force-on-target, and force-on-force training through extensive after-action reviews with ground-truth feedback, realistic representation of opposing forces, and enhanced range and exercise control capabilities.

OPERATIONAL IMPACT
RM/T aligns our live training with the tenets of Training Transformation–JNTC and Joint Assessment and Evaluation Capability. Instrumentation allows Service, and Joint virtual and constructive forces to interact with our live training forces from distributed locations.

The MAGTF’s live training will eventually expand to incorporate coalition forces. The open and urban terrain enhances training by providing the capability to conduct realistic training. This exercises all battlefield operating systems, and allows continuous assessment of performance, interoperability, and identification of emerging requirements.

PROGRAM STATUS
RM/T is sponsored by the Range and Training Area Management Branch, Training and EDCOM. The program is managed by Program Manager Training Systems, MCSC. The final integrated design of the live training PoR upgrade to our training capabilities will be incremental. Development and production efforts continue to provide:

• urban training environments
• ground position location systems
• instrumented tactical engagement simulation systems
• opposing force threat systems (including targets) data collection systems
to instrument the live training environment at multiple MCBs and stations.

CENTER FOR ADVANCED OPERATIONAL CULTURE AND LEARNING (CAOCL)
CAOCL is part of MCU, and ensures that Marines are regionally focused, globally prepared, and effective at navigating and influencing the culturally complex 21st Century operating environment. In fulfilling its requirements, CAOCL draws from the guidelines and requirements articulated in documents such as our Service Campaign Plan, the Force Generation Order, and the MROC Decision Memorandum 38-2012.

CAOCL is responsive to our Corps’ warfighting requirements across the ROMOs. As the proponent for culture and language, CAOCL provides operationally relevant culture and language training, education, research, and support to the general-purpose force.

POLICY AND PLANNING
CAOCL supports our Corps in formulating policies, plans, and strategies to address regional understanding, operational culture, and language familiarization requirements across the doctrine, organization, training, materiel, leadership and education, personnel, and facilities (DOTMLPF) spectrum.

REGIONAL, CULTURE, AND LANGUAGE FAMILIARIZATION (RCLF) PROGRAM
CAOCL serves as the administrator and coordinator of our RCLF Program, which is a career-long training and education program that begins at accession and instills, develops, and sustains a basic language,
Operational Culture Training: CAOCL provides operational culture training via mobile training teams for units deploying anywhere in the world. This instruction focuses on the operationally relevant aspects of culture that will enhance Marines’ ability to navigate and influence a specific operating environment during the accomplishment of their mission.

CAOCL provides operational culture general instruction, preparing units to work within any culture around the world. The center also provides operational culture specific classes and briefs for units requiring detailed information on particular cultures they will encounter during a deployment or a mission. CAOCL also assists units with incorporating operational culture into their planning process, primarily through the “green cell” construct.

Throughout its products, CAOCL incorporates skills such as using an interpreter, understanding and using non-verbal communications, and interacting with a foreign population into culture training. Focusing primarily on commanders and key personnel, CAOCL also provides Key Leader Engagement training, which combines culture and language skills for effective cross-cultural communications.

CAOCL also publishes and distributes a variety of cultural reference material and field guides to assist Marines while deployed or during training. CAOCL Liaison Officers at each MEF assist Marine units in accessing resources, scheduling training, and fulfilling culture and language training requirements.

OPERATIONAL SUPPORT
CAOCL provides subject matter experts in direct support of the operating forces. These experts assist commanders in understanding the cultural terrain of the battlespace and in planning operations. They serve as evaluators and advisors during MRXs, assist in scenario and exercise design, and provide a reach-back resource for deployed forces for issues related to operational culture.

Cultural Advisors in support of MEF and GCE commanders serve as special staff officers during pre-deployment training and deployments. They perform their tasks as integral members of operational staffs by providing personal advice to commanders and assisting with the integration of culture into the planning process.
PROFESSOR OF OPERATIONAL CULTURE

CAOCL maintains a faculty member at MCU who provides instruction during PME to MCU students on the concept of operational culture and its application in our planning and operations. Additionally, the professor expands understanding and integration of culture into our Corps’ plans and operations by conducting research on the subject of operational culture.

TRANSLATIONAL RESEARCH GROUP (TRG)

The TRG supports CAOCL’s activities by providing the scientific basis and scholarship — specifically oriented on our missions and guidance — required for training, education, policy, and programming. The TRG conducts the work necessary to ensure that the globally applicable concepts and skills of social science are “operationalized” for use by Marines, as well as leveraging expertise from other organizations.

TRG is also responsible for developing valid assessment platforms to ensure CAOCL’s activities are meeting the needs of the operating forces. TRG brings together scientists with critical disciplinary backgrounds that are uncommon in the DoD. TRG’s expertise bears on broader issues of interest to TECOM, such as resiliency, even though it focuses on CAOCL.

MARINE CORPS HISTORY DIVISION

Our History Division’s mission is to provide knowledge of our Corps’ past to ensure an understanding of its history, provide explanations of the present, and offer guidance for the future of our Corps and the American people. The division does so in the following ways:

- making our Corps’ hard-earned experience and official history available for practical study and use;
- preserving a written, spoken, and visual record of our activities and traditions by collecting papers, articles, images, and interviews of lasting historical interest;
- assisting in the use of military history to aid in PME and training, which provides background information and insight for decision-making.

The History Division is a division within MCU and has five Branches: History, Reference, Editing and Design, and Headquarters. Each branch contributes to the research, writing, and editing of the official histories of our Corps. The Reference Branch fulfills several specific functions in accordance with Marine Corps Order 5750.1H. To perform these functions, the Branch maintains internal working files that cover five areas:

- subject files
- biographical files on prominent Marines
- units
- photos
- geographic area files

The CMC has mandated and signed an order, which enables the Reference Branch to perform the staff work for the Lineage and Honors Program and the Commemorative Naming Program. Division historians, working with the NMMC staff; collect, research, write, publish, and distribute accounts that are professional presentations of permanent historical value to our Corps and are material contributions to the military, political, and social history of the United States and its Armed Forces.

Our History Division also:

- writes battle studies;
- deploys combat historians with operational units to collect and preserve primary source materials;
- conducts interviews with a wide variety of current and former Marines to support the Division’s research and writing efforts;
- edits, designs, produces, prints, warehouses, and distributes completed books;
- solicits articles, edits, and publishes Fortitudine (the bulletin of the our Historical Program);
- operates the Marine Corps University Press.

Founded in 2008, the MCU Press seeks to further the vision, educational objectives, and curriculum of MCU through scholarly dialogue not offered in other forums. The MCU Press published the first issue of the Marine Corps University Journal in 2010 and features articles, interviews, and reviews on issues of strategy and international security. Currently, the journal is published once a year, but plans are in place to increase publications to twice a year.
The History Division is also making progress towards digital publications of some or all of its books and is working on a multi-year effort to scan and process key Reference Branch materials in order to make them available in a digital format to all patrons via the web. The History Division’s website: www.history.usmc.mil is continually being improved and expanded.

NATIONAL MUSEUM OF THE MARINE CORPS (NMMC)

The President of the United States dedicated the NMMC on 10 November 2006. The NMMC is located in Quantico, Virginia, and is one of the most popular cultural attractions, with an average annual visitor attendance of more than 500,000 during each of its first seven years. Its exhibitions recreate environments and immerse visitors into our action.

NMMC’s mission encompasses the following activities:
- collecting and preserving objects that reflect the history of the Corps;
- interpreting our Corps’ history;
- educating students and families;
- conducting collections-based research;
- supporting the recruitment, education, and retention of Marines.

The NMMC is being constructed in phases, and the first phase includes approximately 120,000 square feet. It opened with permanent galleries dedicated to “Making Marines,” World War II, the Korean War, and the Vietnam War. In 2010, three additional galleries opened to tell our Corps’ story from 1775 through World War I. In immersive exhibits, visitors take their places alongside Marines in battle. Prominent displays of aircraft, tanks, and other vehicles along with period uniforms, weapons, medals, flags, and other artifacts help visitors trace the history of our Corps. Future phases will add a giant-screen theater, classrooms, an art gallery, visible storage, and more exhibition space to the flagship building. A chapel that overlooks the Museum and Semper Fidelis Memorial Park opened in October 2009. Also planned as part of the 135-acre “Marine Corps Heritage Center” is a hotel and conference center, artifact storage and restoration building, and additions to the Semper Fidelis Memorial Park.

The NMMC reports to MCU and is federally funded and staffed by our civilian employees and uniformed Marines. However, its construction and expansion would not be possible without the assistance of the Marine Corps Heritage Foundation. This strong public-private partnership, approved by Congress in 2001, allowed for the construction of an iconic building and the delivery of the highest-quality programs. The strength of any history museum rests with its collections. NMMC’s keystone objects represent how Marines have waged war since 1775. Our Corps has transferred weapons, tanks, vehicles, and aircraft to the museum by our Corps, but pride in being a Marine has prompted many generations of Leathernecks to donate their personal items to the permanent collection. Because the museum is charged with caring for its collections — some 42,000 objects — in perpetuity, curators add to the collection very selectively, consulting a formal collections rationale for guidance. Stewardship responsibilities are divided among five broad categories: ordnance, uniforms and heraldry, aviation, art, and general collections. Curators and collections managers work together to fully account for the collection.

As is often the case with museums, less than 10 percent of NMMC’s objects are on exhibition at any one time. Most of them are in storage at MCB Quantico, while some objects are on loan to other museums around the country. A team dedicated to the preservation of aircraft, vehicles, artillery pieces, and other large artifacts completes the detailed restoration of several artifacts each year. Working with curators and historians, an in-house exhibitions team designs and oversees permanent and temporary installations, including the Commandants Corridor at the Pentagon. Museum educators use these exhibits to craft formal education programs that meet the needs of classroom teachers and are linked to specific standards of learning.

Education at the museum can definitely be fun, especially for “Little Marines,” with puppet shows, hands-on activities, storytelling, trains, and gallery hunts. During 2010, NMMC served 40,236 students in formal programs. Popular family day programs are offered on the second Saturday of each month. Marines attending formal schools also make good use of the Museum as part of their PME.

Since World War II, we have been instructing a small number of Marines to “go to war and do art!” Continuing in that tradition, in 2010 the Museum
deployed one artist to Haiti, and training sites in the United States to capture what today’s warriors are accomplishing. An exhibit at the Arch during Marine Week Saint Louis in 2011 featured more than 60 works from the combat art collection. In 2009, the NMMC received the Themed Entertainment Association’s award for Best New Museum, and the Secretary of the Navy recognized the museum with the Award of Merit for Group Achievement. The museum stands as a proud acknowledgement of the courage and commitment to duty delivered by all Marines, in support of our Corps’ families today, and as an inspiration to the next generations of Americans.

In addition to the NMMC, command-specific museums are located at Recruit Depots, San Diego, CA; Parris Island, SC; MCAS, Miramar, CA; and at the MCMWTC Historical Display at Bridgeport, CA. These museums reflect the unique interests and objectives of those facilities. For additional information, see: http://www.usmcmuseum.org.
Section 4:
Fire Support
Ground Indirect Fires

INTRODUCTION

Analysis of future major combat operations during the period from FY14-24 examined the in-service organic fire support of the MAGTF to determine the adequacy, integration, and modernization requirements for ground, aviation, and naval surface fires. We also conducted a supplemental study using OIF data to examine MAGTF fires across the full spectrum of warfare. These studies validated our development of complementary systems of ground indirect fires.

The MAGTF requires three indirect fire (IDF) capabilities: a medium-caliber cannon artillery capability; an extended range ground-based rocket capability; and a capability that provides greater lethality than traditional 81 mm mortars with greater tactical mobility than in-service artillery systems. These capabilities provide the MAGTF with balanced, expeditionary, ground-based IDFs that are responsive, redundant, complementary, and capable of providing the range and lethality to effectively engage the targets our Corps faces across the full ROMOs. The MAGTF’s ground IDFs are founded on the M777A2 L155 Howitzer, which combines design innovation, improved navigation and positioning systems, and digital fire control. These elements provide significant improvements in mobility, durability, lethality, and survivability when compared to the legacy M198 155 mm Howitzer.

The HIMARS fills a critical range and volume of fires gap our Corps faces and provides the MAGTF with an all weather, long-range precision fires capability. The third “leg” of our IDFs “Triad” is the Expeditionary Fire Support System (EFSS), which is a towed, rifled 120 mm mortar, and is the principal IDF support system for any MAGTF helicopter/tilt-rotor-borne force executing ship-to-objective maneuvers. An EFSS can be transported aboard MV-22B and CH-53E/K aircrafts when paired with an Internally Transportable Vehicle (ITV). MAGTF units equipped with EFSS experience immediately responsive and organic IDFs with range and lethality capabilities far exceeding those of organic infantry battalion mortars. Several innovative systems related to fire support significantly improve the efficiency and effectiveness of the MAGTF including: the Adavanced Field Artillery Tactical Data System (AFATDS), the family of Tactical Acquisition Systems, and the Target Hand-Off System. Finally, the development completion of precision guided munitions, such as the Guided Multiple Launch Rocket System (GMLRS), and the in-progress development of the Precision Extended Range Munition (PERM) continue to improve the MAGTF’s lethality while minimizing collateral damage.
HIGHMOBILITY ARTILLERY ROCKET SYSTEM (HIMARS)

DESCRIPTION
HIMARS is a C-130 transportable, wheeled, IDF rocket/missile system capable of firing all current and future rockets as well as missiles in the Multiple-Launch Rocket System Family of Munitions (MFOM). The HIMARS launcher consists of a fire control system, carrier (automotive platform), and launcher-loader module that performs all operations necessary to complete a fire mission. The basic system includes one launcher, one resupply vehicle, and two resupply trailers.

OPERATIONAL IMPACT
HIMARS addresses an identified, critical warfighting deficiency in our Corps’ fire support. HIMARS employs the Guided Multiple Launch Rocket System (GMLRS) to provide precision fires in support of the MAGTF.

HIMARS is also a transformational, general support response, general support reinforcing, and precision IDF weapon system. HIMARS accurately engages target ranges (in excess of 40 miles) with high volumes of lethal precision fires in all weather conditions and throughout all phases of combat operations ashore.

OPERATIONAL VIEW
CHAPTER 3: PROGRAMS

PROGRAM STATUS
The HIMAR system is in the operations and support phase. HIMAR achieved IOC in the 4th Qtr FY08 and FOC in FY10. The program continues to procure munitions in support of operations and sustainment.

RECEIVING UNITS
- I MEF
- II MEF
- IV MEF

DEVELOPER/MANUFACTURER
Lockheed Martin Corporation, Dallas, TX

LIGHTWEIGHT 155 MM HOWITZER (LW155)

DESCRIPTION
The M777A2 system is a lightweight, towed 155 mm Howitzer that serves as the primary direct support IDF system in the MAGTF. Developed as part of a joint U.S. Marine Corps /U.S. Army program, it provides accurate IDFs for both services.

The M777A2 incorporates innovative design technologies that reduces system weight to less than 10,000 lb while increases mobility, survivability, deployability, and sustainability for expeditionary operations. It is the first ground combat system whose major structures are made of high-strength titanium alloy resulting in a weight savings of 7,000 lb in comparison to the M198 155 mm Howitzer.

The M777A2 system makes extensive use of hydraulics to operate the breech, loading tray and suspension system to reduce crew size and fatigue. Additionally, the M777A2 provides significant time savings for displacement and emplacement. Its primer feed mechanism supports a maximum firing rate of four rounds per minute and a sustained rate of two rounds per minute. The M777A2 is capable of firing precision munitions to a range of 24 miles, standard high explosive munitions to a range of 15 miles, and rocket-assisted projectiles to a range of 19 miles.

The M777A2’s Digital Fire Control System (DFCS) is capable of determining onboard ballistic computations within 1 mil. The DFCS uses a global positioning system, an inertial navigation unit, and a vehicle motion sensor to accurately locate and orient the weapon thus improving precision and responsiveness. The system integrates radios for voice and digital communications as well as a chief of section display, which aids in navigation during movement when mounted in the cab of the prime mover. The system’s mission computer processes the fire mission and provides directional commands to the displays of the onboard gunner and section chief.

PROGRAM STATUS
The M777A2 is deployed in current operations and has been in-service with our Corps since 2005. We have received final delivery of 481 howitzers.

OPERATIONAL IMPACT
The M777A2 provides improved combat capability to the MAGTF. The weight reduction improves transportability and mobility without reducing range and accuracy, while the DFCS improves accuracy and responsiveness. The Medium Tactical Vehicle Replacement (MTVR) tows the M777A2, and can be airlifted to remote locations by the CH-53E/K, CH-47D, and MV-22B Osprey where ground transportation is inaccessible. The M777A2 has been employed in OEF and maintains an operational availability of over 90 percent in Afghanistan’s austere and harsh conditions. The M777A2 fires the full range of U.S. 155 mm munitions, to include the precision guided Excalibur, which enables the MAGTF to employ accurate IDFs while reducing non-combatant casualties.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF
- IV MEF

DEVELOPER(S)/MANUFACTURER(S)
BAE, Hattiesburg, MS
Watervliet Arsenal, Yuma, AZ
ADVANCED FIELD ARTILLERY TACTICAL DATA SYSTEM (AFATDS) FAMILY OF SYSTEMS (FoS)

DESCRIPTION

The GYK-60 AFATDS is an automated fire support C2 system that provides the MAGTF with the ability to rapidly integrate all fire support assets into maneuver plans via digital data communication links. AFATDS supports the timely exchange of fire support information and target processing essential to survival on the modern battlefield through the integration of all fire support assets including: artillery, rockets, mortars, naval surface fire support, and close air support (CAS).

The Back-Up Computer System (BUCS) and Mobile Tactical Shelter (MTS) are subsystems of the AFATDS program, and fulfill requirements identified in the U.S. Marine Corps AFATDS Operational and Organizational Concept.

The BUCS is a handheld computer system that resides on a Ruggedized Personal Digital Assistant (RPDA) designed to provide a back-up capability for computing ballistic firing solutions. The BUCS also provides survey and meteorological functions, in support of field artillery cannon and mortar systems. The BUCS hosts the following three software applications:

- Centaur (Lightweight Technical Fire Direction System): an application which computes parameters and artillery technical firing solutions;
- Field Artillery Survey Program: software which computes artillery survey data;
- The meteorological software application: which converts raw meteorological Plot Balloon readings into ballistic and computer meteorological messages.

The TSQ-17 MTS is a modified U.S. Army-procured shelter mounted on a High Mobility Multi-Purpose Wheeled Vehicle (HMMWV) employed...
by the battery Fire Direction Center (FDC), Battery Operations Center, and Fire Support Teams. It provides environmental protection for the AFATDS, its associated peripherals, and the AFATDS operators.

The TSQ-17 MTS is designed to protect against wind-driven sand, dust, and rain. It will also permit FDC and liaison sections to perform required tasks at night without compromising light discipline. The TSQ-17 MTS provides environmental protection at the battery level, while COC provides environmental protection for AFATDS at the battalion and above.

**PROGRAM STATUS**

The AFATDS program is an Evolutionary Acquisition program, designated an Acquisition Category II for the U.S. Army. The AFATDS is a multiple service program with the U.S. Army acting as the Executive Service. The AFATDS program is in Sustainment. TSQ-17 MTS achieved IOC in 1st Qtr FY12. FOC was achieved in 2d Qtr FY13.

**OPERATIONAL VIEW**

**OPERATIONAL IMPACT**

AFATDS is the commander’s primary Fire Support Coordination System employed from the MEF to battery level operations. AFATDS provides the commander with the ability to rapidly employ all fire support assets at his disposal.

AFATDS also provides the commander with the flexibility to determine what weapon systems to employ in shaping and dominating his battle space. AFATDS greatly enhances the interchange of tactical data between all MAGTF tactical C2 systems by using graphics, common operating applications, and communications.

**PROCUREMENT PROFILE**

AFATDS, BUCS, and TSQ-17 MTS are fully fielded.

**RECEIVING UNITS**

- I MEF
- II MEF
- III MEF
DEVELOPER(S)/MANUFACTURER(S)
• Raytheon, Ft. Wayne, IN
• SPAWAR, Charleston, SC

FAMILY OF TARGET ACQUISITION SYSTEMS (FTAS)

DESCRIPTION
FTAS is our GCE’s IDF acquisition capability, and is composed of the following:
• AN/TPQ-46 Firefinder Ground Weapons Locating Radar (GWLR)
• AN/TPQ-49 Lightweight Counter Mortar Radar (LCMR)
• AN/TSQ-267 Target Processing Set (TPS)

OPERATIONAL IMPACT
The AN/TPQ-46 Firefinder provides the ability to locate IDF weapons (which include mortars, artillery, and rockets) within a 1,600 mil search sector, and is the primary IDF detection system in our Corps. The AN/TPQ-49 LCMR provides a 6,400-mil mortar-detection capability at ranges of one to five km, short range detection coverage, and slewing/cueing intelligence to the AN/TPQ-46 via the AN/TSQ-267. The AN/TSQ-267 TPS is the C2 node of the FTAS capability providing radar deployment orders, support functions, and target data to the counterfire/countermeasure-servicing agent, which the TPS uses as its primary communication and C2 tool. This capability is being fielded under an AAP as a program within the Program Manager Radar Systems.

PROGRAM STATUS
The FTAS Program Office is supporting the warfighter with all three systems. The LCMR is currently deployed to Afghanistan to support OEF. We recently reduced the Approved Acquisition Objective (AAO) for the Firefinder and the LCMR. We recently reduced the Approved Acquisition Objective (AAO) for the Firefinder and the LCMR. The Firefinder was reduced from 44 to 28 systems and the LCMR was reduced from 46 to 42 systems. The AAO for the TPS is seven sets, two for each active duty artillery regiment and one for the RC. FOC for the TPS was achieved in September 2011.

OPERATIONAL VIEW
The basic building block of the EoF–MM will be the Equipment Set. Each equipment set consists of specific material and non-material solutions that, when used together, enable marines to adequately and safely complete a select mission capability task. Two or more equipment sets combine to form a capability module that provides the equipment and supplies to perform a given task, such as establish and secure perimeter or conduct cordon.

PROGRAM STATUS

The EoF–MM AAO was fully funded in FY98 and have all been fielded. The first 20 were fielded to units in OIF and OEF. Redistribution planning is underway.
NON-LETHAL INDIRECT FIRE MUNITION (NL-IDFM)

DESCRIPTION
The Non-Lethal - Indirect Fire Munition (NL-IDFM) will allow our Corps’ forces to achieve visual and auditory suppression of targets at range while minimizing the risk of significant injury (RSI) by integrating an enhanced pyrotechnic payload with an existing 81mm mortar cartridge.

The NL-IDFM leverages the:

- 2003 Joint Non-Lethal Weapons Directorate (JNLWD) Tank Automotive and Armaments Command
- Armament Research Development and Engineering Center (ARDEC) Technology Insertion Program
- the results from the Mission Payload Module Non-lethal Weapon System Technology Development phase
- the results from FY11 NL-IDFM human effects Modeling and Simulation

These leverages conclusively demonstrate that the NL-IDFM desired human effects are achievable with an existing 81 mm mortar cartridge.

OPERATIONAL IMPACT
NL-IDFM will provide significant improvements in range, duration of effects, area coverage, and non-lethal effects when compared to current non-lethal weapon systems.

The NL-IDFM will be designed to suppress personnel with minimal RSI, and can be selectively employed in order to provide a graduated response option across the ROMOs to deny an area, warn or move individuals, and suppress threats.

PROGRAM STATUS
The NL-IDFM program is currently in the S&T phase of the acquisition process. The NL-IDFM JTF, consisting of the Naval Surface Warfare Center (NSWC), Dahlgren Division; NSWC, Indian Head Explosive Ordnance Disposal Technology Division; and ARDEC are collaborating to design and integrate enhanced pyrotechnic payloads into an existing 81 mm mortar cartridge. Once NL-IDFM reaches a Technology Readiness Level (TRL) 6, it will transition to a POR. In addition, the Human Effects Center of Excellence is utilizing NL-IDFM test data to model the non-lethal human effects on individuals in order to minimize RSI.

DOD NON-LETHAL WEAPONS PROGRAM

DESCRIPTION
For the past 16 years, the JNLWD has been responsible for supporting the CMC in executing his duties as the DoD Non-Lethal Weapons Program's Executive Agent.

Since its inception, the JNLWD has served as the focal point to coordinate and advocate non-lethal weapons program activities with OSD, JS, NATO, Congress, and other government agencies. The Directorate has helped stimulate and coordinate requirements with the Services for current and future non-lethal technologies through research and development investments.

Most notably, the JNLWD has assisted the Services in identifying new and advanced non-lethal directed energy capabilities to include low-energy dazzling lasers; high power microwaves which are showing promise as a means to non-lethally stop vehicles and vessels; millimeter-wave technology, such as the Active Denial System; and electro-muscular incapacitation (EMI).

Today, more than 50 non-lethal weapons, devices, and munitions have been developed and fielded. These non-lethal capabilities provide warfighters with escalation-of-force options that minimize casualties and collateral damage. In addition, research sponsored by the Executive Agent into advanced technologies such as directed energy has the potential to provide a generational leap in range and effects.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF
- IV MEF

PROCUREMENT PROFILE

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DEVELOPER/MANUFACTURER
Aardvark Tactical, La Verne, CA
CHAPTER 3: PROGRAMS

ESCALATION OF FORCE - NON-LETHAL EFFECTS (EoF-NLE)

Escalation of Force – Non-Lethal Effects (EoF-NLE) is the application of non-lethal capabilities that enable an individual to control a situation and execute a variety of missions while minimizing risk of significant injury and collateral damage. The definition presumes the individual’s right to self-defense and does not limit or rule out the use of lethal force.

The EoF continuum addresses the full range of response capabilities and possibilities (from non-lethal to lethal, offense to defense, and from peace to war). EoF–NLE addresses only the non-lethal portion of the EoF continuum. EoF–NLE efforts encompass a wide variety of activities and scenarios in coordination with other functions within the unit organization. EoF–NLE actions are separated into six broad categories: (1) assess, (2) warn, (3) move, (4) deny, (5) suppress, (6) disable.

EoF–NLE can be used at both operational and tactical levels. EoF–NLE is not a mission in and of itself - it is a tool to support mission accomplishment. EoF–NLE provides options to the Commander that may permit the ability to non-lethally control or de-escalate a situation. EoF–NLE is employed both complementary to lethal force, and in mutual support of other non-lethal capabilities.

While EoF–NLE provides an option to reduce risk of injury to the potential or identified threat, lethal force may be required to protect Marine forces or civilians. Like lethal fires, non-lethal capabilities are employed in mutual support of other non-lethal capabilities to provide both offensive and defensive coverage for forces.

Employment of EoF–NLE utilizes the Observation, Orientation, Decision, and Action (OODA) loop. The ability to apply non-lethal force (or lethal force) is largely dependent on the time available to make a decision, the interpretation of the perceived threat’s intentions, and the means available to take action. There is no single formula or process to determine which activity or set of activities to employ (nor are activities sequential in nature).

OPERATIONAL VIEW

Each mission area employs a combination of EoF–NLE as follows:

- conduct vehicle check points
- control crowd
- conduct entry control check points
- provide convoy security
- conduct cordon
- clear facilities of personnel
- conduct urban patrolling
- establish and secure perimeter
- conduct search
- detain personnel
Section 5:
Command and Control/Situational Awareness (C2/SA)

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

In February 2009, the Joint Requirements Oversight Council approved our Command and Control (C2) Initial Capabilities Document (ICD). Our Functional Concept for C2, approved in 2009, incorporates joint integrating concepts and C2 mandates. Together, they articulate our goal of delivering an end-to-end, fully integrated, cross-functional capability, including forward deployed and reach-back functions. These emphasize that C2 must be leader-centric, network-enabled, and that individual Marines must understand their commander’s intent and be able to carry out complex operations.

The C2 ICD, Functional Concept, and the Marine Corps Information Enterprise (MCIENT) strategy described in this section will enable MAGTF commanders to exercise effective C2 and merge all warfighting functions into an effective fighting force. In addition, these programs support the ability of the MAGTFs to function in an integrated naval environment and participate in or lead joint and multi-national operations.
CHAPTER 3: PROGRAMS

AVIATION COMMAND AND CONTROL SYSTEM (AC2) FAMILY OF SYSTEMS (FoS) AND MARINE AIR COMMAND AND CONTROL SYSTEM (MACCS) FoS SUSTAINMENT

DESCRIPTION

MACCS Sustainment provides cradle-to-grave support of MACCS FoS assets organic to the squadrons of the Marine Air Control Groups (MACGs). The primary goal of the MACCS Sustainment program office is to ensure the systems are kept ready, relevant, and capable. This is accomplished through: the use of technology insertion to maintain compliance with IT system mandates; capability enhancement to meet emerging and dynamic joint interoperability requirements; hardware refresh cycles; Post-Deployment Software Support (PDSS); and depot level refurbishment activities.

OPERATIONAL VIEW

For the MACCS Operational View, see Common Aviation Command and Control System (CAC2S)

OPERATIONAL IMPACT

MACCS consists of various air C2 agencies and systems within the MACG designed to provide centralized command and de-centralized control through top-down guidance and bottom-up feedback. The ACE Commander exercises the ability to monitor, supervise, and influence the application of the six functions of Marine Aviation via the MACG.

DEVELOPER/MANUFACTURER

Ultra Electronics Advanced Tactical Systems, Austin, TX

THEATER BATTLE MANAGEMENT CORE SYSTEM (TBMCS)

DESCRIPTION

The TBMCS is the air war-planning tool mandated by the Chairman of the Joint Chiefs of Staff for the generation, dissemination, and execution of the Air Tasking Order (ATO) and Airspace Control Order (ACO). The host system resides with the ACE in the Tactical Air Command Center (TACC) and enables dynamic mission updates, from across the MAG, increasing SA and facilitating the execution of the ATO and ACO.

OPERATIONAL IMPACT

TBMCS is the aviation C2 tool used within Marine Aviation C2 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 and ACO in Joint, coalition, and our Corps’ contingencies.

PROGRAM STATUS

The U.S. Air Force placed TBMCS into sustainment in 2007 following the release of version 1.1.3 to the Joint community. The U.S. Air Force, in conjunction with the U.S. Navy, U.S. Army, and U.S. Marine Corps, continues to sustain version 1.1.3 while planning for the eventual transition to a new system of record known as Command and Control Air Operations Suite/Command and Control Information Services (C2AOS/C2IS) in the 2020 timeframe.

As part of current sustainment, we are fielding TBMCS Maintenance Release 2 Virtualized (MR2V), which reduces the overall TBMCS footprint by 70 percent, and reduces the system load time by approximately 60 percent.

The Marine Corps Air Mission Planner (MCAMP) is also being developed as a U.S. Marine Corps -only web interface to the current UNIX based mission planning and re-planning applications.

The MCAMP application will provide full mission planning/re-planning capability via the web across the MAGTF, and an improved Graphic User Interface (GUI), while remaining interoperable with all fielded TBMCS versions.

RECEIVING UNITS

- I MEF
- II MEF
- III MEF
- IV MEF

PROCUREMENT PROFILE

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DEVELOPER(S)/MANUFACTURER(S)

- Lockheed Martin, Colorado Springs, CO
- Hill Air Force Base, Layton, UT
- NAWC, St. Inigoes, MD
GLOBAL COMMAND AND CONTROL SYSTEM-TACTICAL COMBAT OPERATIONS (GCCS-TCO)

DESCRIPTION

GCCS-TCO is the principal tool within the MAGTF for generating situational awareness through the distribution of the common tactical picture (CTP).

GCCS-TCO also is the primary entry point for the common operational picture (COP). GCCS-TCO 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.

GCCS-TCO also provides commanders in garrison and tactical operations the ability to: receive, fuse, store, develop, transmit, and display a commander’s critical information requirements.

OPERATIONAL VIEW

OPERATIONAL IMPACT

GCCS-TCO 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. Without GCCS-TCO, our Corps would not have the ability to access or contribute to the SA provided by the CTP or COP, either internal to the Marine Corps or within the Joint community. GCCS-TCO is the tool for the Marine Corps CTP and entry point for the joint-level COP.

PROGRAM STATUS

GCCS AAO of 194 servers and 320 clients has been achieved and is in the sustainment phase of its acquisition life-cycle. GCCS capabilities will be combined with the Joint Tactical Common Operational Picture Workstation in FY14, and the GCCS program will merge with TCO (TCO is in the sustainment phase of its acquisition life-cycle, having reached FOC in 1996).
TCO will continue to sustain software upgrades across the Future Year Defense Plan (FYDP) as well as Corps-wide hardware upgrades of both the Tactical Common Operational Picture Server and the Intelligence Operations Workstation Version 1 client in FY13.

DEVELOPER/MANUFACTURER
Undisclosed, Ft. Meade, MD

COMBAT OPERATIONS CENTER (COC)

DESCRIPTION
The COC is a deployable, self-contained, centralized facility that provides shared C2 and SA functionalities in a collaborative environment. The system’s design enhances the tactical COP for all levels of the MAGTF. It is COTS, total turnkey, integrated hardware solution using unit-provided radios, legacy and re-hosted tactical data applications, and prime movers to provide mobility, modularity, and scalability for each assigned mission. COC supports the MAGTF throughout the full ROMOs and enables the following Marine Corps warfighting functions: C2, intelligence, maneuver, fires, force protection, and logistics. The COC program office is upgrading existing COCs to introduce an enhanced and integrated software baseline, which supports warfighter needs.

The COC C2 Software Package is based on service oriented architecture principles. Its baseline will enable existing Tactical Data Systems (TDS) to share their data, producing an identical CTP. To support such a robust software capability, the COC program will field a major hardware refresh in FY14 and FY15.

OPERATIONAL IMPACT
COCs have been deployed to OIF and OEF, as well as many other operational exercises and missions around the globe. COCs provide capabilities to 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 integration of commercial and Government-Off-The-Shelf (GOTS) technologies shorten 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.

DEVELOPER(S)/MANUFACTURER(S)
- General Dynamics C4, Scottsdale, AZ
- NSWC, Panama City, FL
Section 6: Expeditionary Energy
“We have made tremendous strides in weaning ourselves from external energy dependencies…For expeditionary Marines operating in austere environments, these energy efficiency measures represent a significant increase in combat effectiveness.”

Gen James F. Amos, Commandant
Posture of the United States Marine Corps, April 2013

Introduction

The demands of the future security environment are driving the Marine Corps to become a leaner force. The MEB is centered as the principal organization for planning, conducting steady-state activities, and responding to larger crises and contingencies. Today’s MEB, the ‘crown jewel’ of Marine Corps operations, is heavier than it was ten years ago. There are more units, and each unit relies on more (and heavier) aircraft, vehicles, and equipment. All require more energy than legacy versions.

The Marine Corps Expeditionary Energy Office (E2O) is pursuing an aggressive energy program to extend the operational reach of the future MEB and increase readiness by enabling additional training days with the same amount of fuel. Our Corps’ energy investments ensure that the Marine Corps will forever remain most ready when the Nation is least ready, by creating a lighter, more efficient force that goes farther and stays longer on every gallon of fuel we use.
CHAPTER 3: PROGRAMS

EXPEDITIONARY ENERGY

EXPEDITIONARY ENERGY FRAMEWORK
In March 2011, the CMC issued the Marine Corps Expeditionary Energy Strategy and Implementation Plan with the goal of increasing combat effectiveness from "Bases to Battlefield." The Strategy directs the Marine Corps, by 2025, to deploy expeditionary forces capable of maneuvering from the sea, and only requiring liquid fuel for mobility systems once ashore.

To drive institutional change, the Marine Corps put in place a framework to guide its efforts. The MROC-approved Expeditionary Energy, Water, and Waste Capabilities Based Assessment and Initial Capabilities Document (E2W2 CBA/ICD) as the comprehensive military requirements document.

E2W2 CBA/ICD identifies 152 material and non-material gaps that must be closed in order to achieve the CMC’s 2025 goal. Taken together, the Strategy, the E2W2 CBA/ICD, and the 2012 Marine Corps S&T Strategic Plan provide an investment plan to drive toward the CMC’s goals. Marine Corps Order 3900.19, issued in 2013, directs combat developers to hone our combat capability by integrating energy performance into new systems and upgrades to legacy systems.

EXPERIMENTAL FORWARD OPERATING BASE (EXFOB)
Established in 2009, the ExFOB process brings together stakeholders from across the Marine Corps requirements, acquisitions, and S&T development communities to systematically close the material capability gaps identified in the E2W2 CBA/ICD.

Once a year, the ExFOB team invites industry to spend a week at a MCB and demonstrate off-the-shelf technologies with potential to address Marine Corps needs. Qualitative and quantitative data collected during ExFOB inform requirements, reduces investment risk, and builds Marines' confidence in new capabilities.

Once fielded, energy and water technologies first demonstrated at the ExFOB will increase the operational reach of the force. Specific capability gains expected from these systems include:

- power patrol bases entirely on renewable energy
- conduct extended foot patrols with limited or no fuel or battery resupply
- lighten the carried load of batteries and water for a 96-hour patrol from ~65 lb to ~7 lb
- reduce the need to carry multiple types of batteries
- reduce generator runtime by up to 80 percent and generator fuel use by up to 50 percent
- increase fuel efficiency of the Medium Tactical Vehicle Replacement (MTVR) by 25 percent or more
- reduce vehicle fuel use while idling by 30 percent

COMMANDER’S ENERGY READINESS PROGRAM (CERP)
Every Marine knows exactly how much ammunition he has whether in training or on the battlefield. Marines do not have that same level of visibility over their energy supply.

E2O is working to raise awareness in the fleet and enable Marines to manage their fuel, just as they manage their ammunition by direction from the CMC. The Commander’s Energy Readiness Program (CERP), launched in 2013, arms battalion and squadron commanders with fuel and power data, and enables them to plan and make decisions that can increase training days or extend operational reach.

As budgets decline, programs like CERP will ensure that Marines extract the most readiness out of every gallon of fuel they use. CERP will pave the way for a Marine Corps Order that standardizes energy management across the operating forces, as well as a full-scale metering program that will inform operational planning at all levels of the MAGTF.

EXPEDITIONARY ENERGY IMPACT
Expeditionary energy investments target the forward line of Marines, lightening the load and increasing efficiency where the risk is highest, on the battlefield.

The Marine Corps calculates "return on investment" in terms of military capability gained. Modeling of the anticipated impact of the PB14 expeditionary energy investment on the AE 2024 MEB suggests efficiency gains for ground operations, which translate into approximately one additional day of reach, at ~D+7, on the same amount of fuel required today.

Current and future investments, and accompanying value to the operating forces, include:

- an acceleration of the fielding of expeditionary
energy systems, including:

- Solar Portable Alternative Communications (SPACES);
- Ground Renewable Expeditionary Energy Network System (GREENS);
- radiant barrier blankets;
- LED light sets, to Fleet Marine Forces;

- develop and field next-generation hybrid power systems with the potential to reduce generator energy consumption by up to 50 percent and increase generator efficiency by 80 percent as a joint effort with the U.S. Army;

- develop fuel efficient improvements for the Medium Tactical Vehicle Replacement (MTVR) including a potential 25+ percent increased fuel efficiency with ONR;

- implement improved power generation capability to achieve approximately 22 percent fuel efficiency across the fleet of power systems (U.S. Army funded development; U.S. Marine Corps funded procurement);

- execute an annual ExFOB demonstration to accelerate technologies to the battlefield that reduce the energy burden on the operating forces;

- update T&R Manuals and curriculum for MOS schools and Chiefs’ courses with emphasis on logistics fields and logistically intensive warfighting MOSs such as artillery.

The current and future security environment demands a forward deployed crisis response force that is posed to respond to a host of threats at a moment’s notice and is able to sustain itself for significant periods, at a time and place of its choosing.

The strategic re-balance to the Pacific, and the tyranny of distance associated with operations therein, underscores the value of a fast, lethal, and austere MEB that is lighter and more energy efficient than it is today.
Section 7:
Intelligence, Surveillance, and Reconnaissance (ISR)

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

The MCISR-E is a warfighting enterprise designed to rapidly fill intelligence capability gaps and address emergent operational intelligence needs requiring near-term technical solutions. Through the integration of all Service ISR elements into a single capability or system networked across all echelons and functional areas – including the operating forces, supporting establishment, systems and personnel – MCISR-E achieves superior decision-making and enhances the Corps’ lethality.

The overall intelligence innovation objectives are to:

- drive innovation of governance, technology, and processes, to address unique intelligence needs;
- close capability gaps;
- collaborate and leverage across traditional boundaries.

A continually evolving ISR enterprise ensures that intelligence effectiveness is at its highest and can deliver forward with “excellence in expeditionary intelligence” that is timely, accurate, and relevant to the warfighter.
CHAPTER 3: PROGRAMS

TODAY

The MCISR-E supports our intelligence unity of effort across the air, ground, maritime, and cyberspace domains. This strategy synchronizes our current intelligence programs, units, and personnel at every echelon across the operating forces and supporting establishment. Synchronization enables collaboration and sharing of actionable information and federated intelligence production in support of the MAGTF.

The MCISR-E strategy is an enterprise solution that leverages and shares all ISR functions, sources, and methods across the total force for operational success. A major milestone has been the establishment of MICs that enable MEF units to train as they fight by providing analytical and intelligence production support from garrison locations to deployed forces, supporting the CMC’s “Lighten the MAGTF” initiative as well as reinforcing the forward deployed intelligence footprint.

Other significant advances include establishment of the HQMC Intelligence Department Technology Innovation Division led by the Enterprise Chief Technology Officer; a comprehensive intelligence professionalization program across the enterprise; and advanced analytic training, methods, and tools that enable standardized, collaborative predictive analysis across the enterprise.

These recent advances place ISR capability and capacity at all echelons throughout the total force, integrating intelligence information to reduce uncertainty within complex threat environments. As budgets decrease and global threats intensify, the MCISR-E embraces operational flexibility through adaptive responses in operating concepts, doctrine, training, and equipment.

TOMORROW

Tomorrow’s enterprise must be better than today’s. A continually evolving ISR enterprise executes current missions effectively, while harnessing human capital, innovation, and technology to meet future challenges.

The MCISR-E contributes to joint and combined intelligence effectiveness, as a valued participant in the broader IC through its access to the tactical edge and global crisis response forces. When fully implemented, the MCISR-E will provide access to: resources, expertise, shared knowledge, and useable data from across the enterprise.

MARINE CORPS INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE ENTERPRISE (MCISR-E)

The MCISR-E is a warfighting enterprise that supports decision-making through the provision of tailored intelligence that is timely, relevant, and predictive. The enterprise supports institutional decision-making through both the provision of relevant intelligence and the comprehensive integration of the intelligence warfighting function in operating concepts, structural decisions, and material investments. The multi-domain, collaborative, worldwide construct of the MCISR-E provides the crucial edge across the spectrum for both deployed and CONUS-based MAGTFs.

What drives the MCISR-E is not the crisis of the moment but rather, the incorporation of a “24/7/365” predictive analysis process with the global reach of operational MEF Intelligence Centers (MICs) backed by the Marine Corps Intelligence Activity (MCIA) and its connectivity to the Combat Support Agencies (CSA) and National Intelligence Community (IC).

To ensure its viability, Marine Corps Intelligence will continue to remain vigilant over a complex, technically sophisticated threat environment and evolve by seizing technological opportunities to increase MCISR-E capabilities and capacities.

An intelligent workforce, uniformed and civilian, anchors the MCISR-E with the skills, professional acumen, and functional expertise that mark them as a world-class contributor to our Corps and IC missions.
MCISR-E will also provide the same to Joint, national, and allied partners. The ability to “see, understand, and act” enables a highly trained, networked, and analytically astute intelligence force to enhance decision-making at the point of execution, while meeting intelligence quality and information sharing standards required by DoD and the IC.

MARINE CORPS OPERATIONAL INTELLIGENCE SUPPORT (MCOIS)

DESCRIPTION
Marine Corps Operational Intelligence Support (MCOIS) is provided by Marine Corps Intelligence Activity (MCIA) provides tailored intelligence products and services to our operating forces and supporting establishment, as well as the larger IC based on expeditionary mission profiles in littoral areas. As the Corps’ service-level intelligence center, MCIA plays a key role in the development of service doctrine, force structure, training and education, and systems development and acquisition.

MCIA consists of the following:

- The CE: the Operations Directorate that includes tailored analysis, imagery production, topographic support, and weapons and technology support;
- The Counterintelligence/Human Intelligence (CI/HUMINT) Support Company: provides both collection and analytical capabilities;
- The Cryptologic Services Group;
- The JWICS System Enterprise Office (SEO): provides the crucial service-wide backbone for global JWICS support to our Corps.

Each of these elements within MCIA provides unique capabilities that allow the command to best support intelligence requirements along the entire spectrum of expeditionary operations. Together, these elements deliver “excellence in expeditionary intelligence” to their broad and growing customer set.

OPERATIONAL IMPACT
MCIA engages with Marine units scheduled for deployment to ensure that each command understands MCIA capabilities and limitations in providing support during pre-deployment, deployment, and post-deployment.

Frequently, pre-deployment engagement includes command site visits encouraging the full identification of specific, detailed intelligence requirements and preliminary estimates of supportability, not only using MCIA’s own internal capabilities but also its unique ability to leverage the larger IC to help solve Marine Corps operating forces’ intelligence challenges.

During deployment, MCIA maintains contact with the deployed units ensuring continuous support to operational requirements. Additionally, during a deployment MCIA may provide a liaison officer facilitating direct representation and a better understanding of intelligence requirements. All intelligence requirements adhere to appropriate chains of command, including the supported Geographic and Functional Combatant Commands.

MCIA coordinates with the deployed unit to schedule a post-deployment brief, upon conclusion of the deployment. This brief includes not only the supported units and MCIA, but also any other organizations that contributed to the intelligence support effort.

The intent is to review the intelligence requirements submitted with the intelligence support provided and determine what worked well, what needs improvement and capture lessons learned for the future. This unyielding focus on supporting Marine forces — whether they are deployed in harm’s way, are preparing to deploy, or have safely returned home — is the hallmark of MCIA’s support to expeditionary intelligence organizations and deployed Marine forces.

COUNTERINTELLIGENCE AND HUMAN INTELLIGENCE EQUIPMENT PROGRAM (CIHEP)

DESCRIPTION
The Counterintelligence and Human Intelligence Equipment Program (CIHEP) provides each CI/HUMINT company in our Corps with the capability to rapidly collect, process, and disseminate intelligence information in support of the MAGTF. Each suite’s design provides integrated, standardized, and interoperable information and communication systems, as well as specialized equipment to conduct the full spectrum of CI, HUMINT, and technical collection operations.
CIHEP also includes a technical surveillance countermeasures (TSCM) capability designed to detect, locate, identify, neutralize, and exploit adversarial efforts at audio, video, radio frequency, laser/infrared, optical, and telephonic surveillance at sensitive facilities.

**OPERATIONAL IMPACT**

CIHEP enhances the Counterintelligence HUMINT Team’s (CHT) ability to conduct HUMINT and CI operations in support of MAGTF missions at the tactical, operational, and strategic levels.

The equipment suite provides CHTs with an organic capability to: research collection requirements, process collected information; produce intelligence reports, disseminate those reports securely to supported commanders and the IC, and provide limited organic technical support to CI and HUMINT operations.

**PROGRAM STATUS**

The CIHEP program is fully fielded and post-Milestone C.

**RECEIVING UNITS**

- I MEF
- II MEF
- III MEF
- IV MEF

**PROCUREMENT PROFILE**

Technical Refresh of CIHEP Surveillance Communications Set (CSCS), Advanced Imagery Module (AIM), and TSCM Contractor Logistic Support (CLS) of CIHEP FoS (10 Modules).

**DEVELOPER(S)/MANUFACTURER(S)**

Multiple developers and manufacturers in the United States.

**OPERATIONAL VIEW**
TECHNICAL CONTROL AND ANALYSIS CENTER (TCAC)

DESCRIPTION
TCAC provides the Radio Battalions, MARFORSOC, and VMAQ squadrons with an automated SIGINT processing, analyzing, and reporting system. TCAC provides access to the NSA domain and can be used in a standalone configuration or interconnected via Local Area Network (LAN) in support of various MAGTF CEs. TCAC automatically stores, retrieves, and plays back digital voice files; provides termination of national, theater, and tactical data networks (TDNs); and provides SIGINT analysis applications to deployable MAGTF units.

OPERATIONAL IMPACT
TCAC is the primary system, which enables the Radio Battalions to provide SIGINT planning support and timely and accurate, fused signals intelligence (SIGINT) to the MAGTF. TCAC is deployed in two configurations:
- TCAC Remote Analysis Workstation (RAWS)
- Transportable Workstation (TWS)

RECEIVING UNITS
- I MEF
- II MEF
- III MEF
- IV MEF

PROCUREMENT PROFILE

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OPERATIONAL VIEW

Technical Control and Analysis Center (TCAC) provides semi-automated processing, analysis and reporting functions of the Radio Battalion in order to fulfill its mission of providing timely, accurate Signals Intelligence and Electronic Warfare support to the Marine Air-Ground Task Force Combat Operations Center (MAGTF COC). TCAC is the focal point of Radio Battalion Signals Intelligence operations within the Operations Control and Analysis Center (CCAC) and the Operations Control Element (OCE). TCAC directs and manages the technical and operational functions of other Radio Battalion Signals Intelligence and Electronic Warfare assets.
CHAPTER 3: PROGRAMS

TACTICAL SIGNALS INTELLIGENCE (SIGINT) COLLECTION SYSTEM (TSCS)

DESCRIPTION

The TSCS FoS is a modular, semi-automated, multi-platform transportable, and man packable system capable of conducting signals intercept, collection, exploitation, direction finding, and precision geo-location against threat communications.

OPERATIONAL IMPACT

The TSCS FoS is comprised of:

the Team Portable Collection System (TPCS) and the Radio Reconnaissance Equipment Program (RREP). TPCS is employed by SIGINT Support Teams (SST) and provides Marine Corps Radio Battalions with a semi-automated, team transportable SIGINT collection capability supporting the MAGTF and MARFORSOC.

RREP provides a man packable, modular, and scalable SIGINT capability to support the MAGTF and MARFORSOC.

PROGRAM STATUS

TPCS and RREP are fielded to FOC. Programmatic efforts, the execution of a technical refresh, and the insertion of advanced technologies allow us to keep pace with commercial activities employed by adversaries.

RECEIVING UNITS

- I MEF
- II MEF
- III MEF

OPERATIONAL VIEW

This high level graphic depicts the operational mission in which the capability described herein is employed. TSCS provides MAGTFs with modular and scalable carry-on/carry-off tactical Signals Intelligence assets. Its technology extends the radio horizon, increases tactical flexibility and is more accurate, versatile and flexible. TSCS significantly improves activities associated with signals acquisition, processing, and dissemination of intelligence information.
CHAPTER 3: PROGRAMS

PROGRAM STATUS
The TRSS program is fully fielded and post-Milestone C.

RECEIVING UNITS
- I MEF
- II MEF

DEVELOPER(S)/MANUFACTURER(S)
- SPAWAR, Charleston, SC
- L3 Communications, East Camden, NJ
- Canon, Melville, NY

MAGTF SECONDARY IMAGERY DISSEMINATION SYSTEM (MSIDS)

DESCRIPTION
MSIDS provides organic tactical digital imagery collection, transmission, dissemination, receipt, and manipulation from forward positions with eyes on target to MAGTF in NRT.

This capability resides at:
- MARFORSOC
- MAGTF G/S-2 sections
- MEUs
- wings (down to the squadron)
- ground reconnaissance units
- infantry sniper platoons

Cameras for intelligence gathering are also fielded to Radio, Intelligence, Tank, Artillery, Engineer, and Assault Amphibious Vehicle (AAV) Battalions, as well as CBIRF and Civil Affairs (CA) sections.

Cameras provide the capability to digitize analog video from airframes and provide MAGTF G/S-2 sections, MEUs, Marine Air Wings, Intel, and Infantry Battalions with the tools to edit imagery and brief intelligence products.

OPERATIONAL IMPACT
MSIDS provides the only self-contained, handheld, ground-perspective imagery collection capability to MAGTF units and is essential in intelligence collection, mission planning, battle damage assessments, and force protection.

PROGRAM STATUS
The MSIDS program is fully fielded and post-Milestone C.

DEVELOPER/MANUFACTURER
Undisclosed, Charleston, SC

TACTICAL REMOTE SENSOR SYSTEMS (TRSS)

DESCRIPTION
The TRSS program provides a ground surveillance capability for continuous, unattended, remote, all-weather detection, location determination, and monitoring of enemy activity. Current detection methods include seismic, acoustic, magnetic, and imaging (thermal and electro-optical). The most recent delivery includes the integration of satellite communications (SATCOMs) and long-range imaging cameras. The program is currently in the process of upgrading all sensor monitoring systems with a modern hardware and software suite.

OPERATIONAL IMPACT
Sensor Employment Teams deploy in general and direct support of all echelons of the MAGTF.

PROCUREMENT PROFILE

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PROCUREMENT PROFILE

The TRSS program is fully fielded and post-Milestone C.
CHAPTER 3: PROGRAMS

INTELLIGENCE ANALYSIS SYSTEM (IAS) FAMILY OF SYSTEMS (FoS)

DESCRIPTION
The IAS FoS is the T/O weapon for the Marine Intel Specialist. IAS FoS uses a scalable three-tiered approach for receiving, parsing, analyzing, and disseminating fused, all-source intelligence data supporting operational units from the MEF to the Squadron/Battalion level within the MAGTF.

OPERATIONAL IMPACT
IAS FoS provides the MAGTF with a mobile, all-source, intelligence data analysis fusion and dissemination capability, as well as access to time-sensitive intelligence information that is crucial to battlespace awareness and the military decision-making process.
CHAPTER 3: PROGRAMS

PROGRAM STATUS
The IAS FoS is fully fielded and reached FOC in October 1998. The IAS program executes technical refreshes for servers and clients every three to four years. These refreshes incorporate the latest available technology in support of program requirements.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF

PROCUREMENT PROFILE

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Technology refresh (software licenses and technical support services) for Tier II Systems.

DEVELOPER/MANUFACTURER
SPAWAR, Charleston, SC

OPERATIONAL VIEW

DISTRIBUTED COMMON GROUND/SURFACE SYSTEM MARINE CORPS (DCGS-MC)

DESCRIPTION
The DCGS-MC migrates select U.S. Marine Corps ISR processing, exploitation, analysis, and production capabilities into a single, integrated net-centric baseline consisting of functional capability sets that support the MAGTF by making organic and external ISR data more visible, accessible, and understandable. DCGS-MC will be located at garrison sites and deployable units.

OPERATIONAL IMPACT
DCGS-MC is the Service contribution to the jointly mandated DoD DCGS Enterprise.

DEVELOPER/MANUFACTURER
SPAWAR, Charleston, SC
PROGRAM STATUS

The DCGS-MC program acquisition strategy is based on spiral development optimized to rapidly introduce government and commercial technologies, enterprise standards, and modular hardware components in order to maximize savings and reduce program risk. The DCGS-MC program received its Milestone B decision in September 2011 and is currently in the EMD phase. The DCGS-MC program encompassed the Tactical Exploitation Group and Topographic Production Capability programs during FY10 and was re-named DCGS-MC GEOINT in the 3d Qtr FY13. Milestone C is planned for the 2d Qtr FY14, with IOC achieved by 4th Qtr FY14.

RECEIVING UNITS

- I MEF
- II MEF
- III MEF
- IV MEF

OPERATIONAL VIEW

PROCUREMENT PROFILE

FY14 Design, development, and integration of GEOINT Common Hardware and Software baseline.

FY15 POM-15 will support the procurement of equipment and services to include RDT&E for GEOINT Optimization support, OMMC for DCGS-MC sustainment and licensing costs and PMC for the procurement of DCGS-MC EDS Nodes and GEOINT common workstations.

SENSITIVE COMPARTMENTED INFORMATION COMMUNICATIONS (SCI COMMS)

DESCRIPTION

SCI COMMS provides Marine Corps Commanders with dedicated mobile, palletized, and team level secure, data and voice communications that can receive, transmit, and disseminate Top Secret SCI.
level bulk data and imagery products to and from national tactical intelligence sources. SCI COMMS is the only deployable communications system that provides dedicated access to intelligence information classified TOP SECRET SCI. The systems provide our tactical commanders with high capacity, NRT access to intelligence from national agencies, Joint and Service activities, intelligence producers, and other tactical units using Satellite Communication (SATCOM) terminals.

**OPERATIONAL IMPACT**

These scalable systems (team level and palletized) enable global access to tactical, theater and national intelligence data stores facilitating functions, which include tasking, reporting, and dissemination by elements ranging from small teams to a MEF CE. These systems enable SATCOM during exercises and contingency operations, while affording analyst-to-analyst interchange with tactical, theater, and strategic intelligence organizations via Secret Internet Protocol Router Network (SIPRNET) or TS/SCI networks.

**OPERATIONAL VIEW**

**SCI COMMS FoS**

*High-Level Operational Concept Graphic (OV-1)*

**PROGRAM STATUS**

- Trojan Spirit Palletized system: Post Milestone C
- High Bandwidth Special Intelligence Palletized Terminal (HBSI-PT) system awaiting MDD
- Expeditionary Command Communications Suite (ECCS) SCI Kit (SCIK) is in FRP and will be fielded in 2d Qtr FY14.

**PROCUREMENT PROFILE**

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**RECEIVING UNITS**

- I MEF
- II MEF

**DEVELOPER(S)/MANUFACTURER(S)**

Multiple developers and manufacturers in the United States.
Section 8:
Expeditionary Logistics
CHAPTER 3: PROGRAMS

Introduction

We are an agile, lethal, and sea-based expeditionary force that is light enough to rapidly deploy, yet capable enough to operate independently in austere and remote locations. Our expeditionary forces are structured to meet the full range of contingency operations with the logistics capabilities needed to initiate an operation, sustain forces, and reconstitute for follow on missions. Marine Corps logistics provides the fundamental sustainment ability to enable this expeditionary capability. Marine Corps logistics is: integrated with MAGTF fires, maneuver, and force protection; light, modular, and energy efficient; responsive, reliable, and scalable; adaptive – leveraging new technologies to improve capacity and interoperability; agile – with visibility and access to Marine Corps assets (equipment and supplies) to facilitate rapid planning and battlefield reach; innovative – providing leading edge MAGTF C2 capability for deployment and distribution operations; resilient – leveraging bases, stations, and depots to deploy, sustain, and redeploy forces.

The Marine Corps warfighting vision of the future requires fundamental changes in the way we provide logistics support to our MAGTFs – our Expeditionary Logistics includes the people, processes, and technologies to train, deploy, employ, and sustain our future expeditionary forces across the ROMOs. We will improve material distribution by leveraging both surface and aerial resupply, especially from the sea base. The CH-53K heavy lift helicopter, with its increased lift capacity and extended reach, will enable sea-basing and support sustainment of forces on inland objectives. Our Corps collaborates with the DC for Aviation to fully integrate this platform into future expeditionary logistics concepts. In the near future, unmanned air and ground logistics systems, operating from both the sea and land bases, will: bear greater materiel distribution requirements on the battlefield; be able to traverse rugged, nonlinear lines of communication; and provide a complementary distribution capacity to the MAGTF. The Cargo Resupply Unmanned Aerial System (CRUAS) in Afghanistan provides accurate and reliable delivery of sustainment to distributed forces. The Joint High Speed Vessel (JHSV) will rapidly transport Marines and their equipment from arrival areas to the sea base for further employment ashore.

Our Naval Logistics Integration (NLI) initiative, in partnership with the other Naval Services, will optimize U.S. Navy –U.S. Marine Corps-U.S. Coast Guard logistics interoperability, while our MAGTF Logistics Integration (MLI) effort will reduce supply chain redundancies and increase internal effectiveness. By aligning NLI and MLI efforts into a complementary MAGTF logistics design, we will optimize MAGTF logistics performance in support of SPMAGTFs, MEUs, and other task organized expeditionary organizations, to include MARFORSOC Marines.
CHAPTER 3: PROGRAMS

ELECTRONIC MAINTENANCE SUPPORT SYSTEM (EMSS)

DESCRIPTION
The EMSS is our Corps’ key maintenance aid, and is designed to enhance combat service support to the MAGTFs while deployed or in garrison. EMSS consists of an electronic maintenance device (EMD).

The EMD consists of a rugged, lightweight, one-man portable maintenance device that the maintainer can employ at the point of repair to interface with the equipment/system undergoing repair, view technical data, and document maintenance actions.

The EMD is capable of supporting multiple platforms and systems across maintenance communities and provides the necessary technical conduit to enable maintainers to gain access to the Global Information Grid (GIG).

EMSS provides a means to archive and download maintenance data collected from the EMD, hosts maintenance applications, and provides easy access to authoritative technical data with automatic updates as changes occur.

EMSS can operate in a connected, disconnected, and wireless mode and provides access to subject matter experts over our networks. EMSS also provides reach-back capability to SME personnel to enhance and assist in maintenance of weapon systems and support equipment. EMSS is a critical enabler of logistic modernization efforts (Item Unique Identification and Condition Based Maintenance).

OPERATIONAL IMPACT
EMSS provides ground maintenance personnel with an electronic decision support tool capable of wireless connectivity and access to web-based applications and technical data via Global Combat Support System – Marine Corps, interactive electronic technical manuals, computer-based training, forms, and files.

EMSS will reduce failure, lower cost of maintenance, eliminate paper publications, and assist the maintainer in becoming more effective and efficient by providing networked tools and electronic information, all of which enables sustained performance and readiness of our weapon systems anywhere on the battlefield.

DEVELOPER(S)/MANUFACTURER(S)
• GovWAre LLC, Scottsdale, AZ
• NSWC, Crane, IN

FAMILY OF FIELD MEDICAL EQUIPMENT (FFME)

DESCRIPTION
The FFME is the sole organic medical (Class VIII) capability for our Corps. This program is comprised of 34 medical capability sets that provide the full spectrum of health services on the battlefield. These capability sets are known as Authorized Medical Allowance List (AMAL), Authorized Dental Allowance List (ADAL), and individual Warfighter Medical Kits.

The sets provide: trauma care on the battlefield; casualty evacuation from the battlefield; identification and treatment for exposure to nuclear and biological agents; disease prevention; treatment for the sick that have succumbed to disease vectors; and treatment for injuries from exposure to extreme environmental conditions.

The program's objective is to plan for replacements and upgrades (modernization) to AMALs, ADALs, and individual Warfighter Medical Kits that address obsolescence, sustainability and maintainability issues, and reduce logistics footprint (e.g., size, weight, and power) in order to provide the most effective medical care for our Marines and Sailors performing any mission.

In addition, the FFME is our Corps’ Enterprise Manager for all Class VIII materiel and equipment and as such, provides “cradle-to-grave” management for Class VIII materiel and equipment supplied to Marine forces worldwide.

OPERATIONAL IMPACT
The health service capabilities provided by the FFME in support of the MAGTF includes forward resuscitative care, shock trauma care, and first-responder capability sets that provide life-saving care as far forward on the battlefield as possible. In addition, the FFME also includes preventive medicine capability sets designed to prevent the spread of disease. Loss of any of these capabilities would adversely affect health care management throughout our Corps and potentially result in the loss of life.
Each AMAL, ADAL, and medical kit is modeled by the NHRC, verified by subject matter experts, and stocked to reflect current medical treatment protocols. Planned enhancements to FFME capability sets will improve the quality of health care provided to the warfighter. These capabilities include the Infrascanner device for early detection of sub-dural hematomas and an improved Field Anesthesia Unit.

Other efforts also include research studies to determine the effects of patient transport vibration on critically wounded patients, the effectiveness of wireless patient monitors, and AMAL, ADAL, and medical kit modernization studies focused on lightening the load and improving energy efficiency.

DEVELOPER/MANUFACTURER
The FFME has multiple major medical equipment manufacturers in the United States.

MARINE CORPS FAMILY OF POWER AND ENVIRONMENTAL CONTROL EQUIPMENT

DESCRIPTION
Our Corps’ Family of Power Equipment encompasses a portfolio program to continuously procure, update, and replenish more than 30,000 items of power equipment, including: skid-mounted and trailer-mounted diesel generators, floodlights, power distribution sets, electrician toolkits, power supplies, radio power adaptors, battery chargers, renewable energy systems, and onboard vehicle power systems.

Our Family of Environmental Control Equipment continuously procures, updates, and replenishes more than 8,000 items that include tactically hardened Environmental Control Units, refrigerated containers, and refrigeration tool kits. Both families of equipment support all elements of the MAGTF. Paramount in each family is fielding Environmental Protection Agency-compliant equipment to meet stringent air quality and zero-ozone depleting standards, while maintaining military compatibility, energy efficiency, transportability, durability, and simplicity of operation.

OPERATIONAL IMPACT
Procurement of these systems will ensure that the CE, ACE, GCE, and LCE entities have the ability to support all requirements of the MAGTF with deployable and energy efficient equipment.

DEVELOPER(S)/MANUFACTURER(S)
Multiple developers and manufacturers in the United States.

FAMILY OF COMBAT FIELD FEEDING SYSTEMS

DESCRIPTION
The Family of Combat Field Feeding Systems (CFFS) provides the Operating Forces with bulk feeding of Marines and Sailors in all expeditionary environments.

The Family of Combat Field Feeding Systems is comprised of the Expeditionary Field Kitchen (EFK) – capable of feeding 750 Marines per meal, the Enhanced Tray Ration Heating System (E-TRHS) – capable of feeding 250 Marines per meal, and the Tray Ration Heating System (TRHS) – capable of feeding 250 Marines per meal and heating rations-on-the-move.

All equipment contained in the Family of Combat Field Feeding Systems is transportable worldwide and configured for rapid emplacement. The transition from shipment mode to operational mode includes placing mobile appliance units into a food preparation and sanitation configuration.

OPERATIONAL IMPACT
The Family of Field Feeding Systems provides a scalable feeding system to support expeditionary field mess operations as far forward as possible on the battlefield in support of the scheme of maneuver and logistical requirements of the MAGTF.

DEVELOPER(S)/MANUFACTURER(S)
- Sotera Defense Solutions, Easton, MD
- Babington Technology, Rocky Mount, NC
Section 9:
Preparing for Tomorrow’s Fight
Introduction

In addition to our traditional crisis response and expeditionary capabilities, our Corps has reinforced contributions to our Marine Forces Special Operations Command (MARFORSOC), Marine Forces Cyber Command (MARFORCYBER), and Marine Corps Security Cooperation Group (MCSCG). The focus is on three critical areas: cyber warfare, special operations, and security cooperation. Modern armed forces cannot conduct high-tempo, effective operations without reliable information and communication networks with assured access to cyberspace and data. MARFORCYBER focuses on our organic cyber capabilities and capacities needed to retain speed, precision, and lethality. MARFORSOC is our Corps’ contribution to the U.S. SOCOM and provides critically needed capability and capacity to theater special operations commands supporting both Special Operations Command (SOCOM) and the GCC operational requirements. MCSCG capitalizes on our theater security cooperation and partnership activities with allies and partners; provides our leaders with strategic options to shape outcomes; prevents conflicts; strengthens “at-risk” states; and denies enemy safe-havens.
**SMALL WARS CENTER AND IRREGULAR WARFARE (IW) INTEGRATION**

The DC, CD&I is the service advocate for Irregular Warfare (IW). The DC, CD&I delegates that advocacy to the SWC/IWID. IW advocacy is exercised through a variety of forums that include the Capabilities Development Directorate, the Ground Board, the Command Element Advocacy Board (CEAB) as well as several community of interests at the DoD, Joint and Service levels; Irregular Warfare Executive Steering Committee (IWESC), Security Force Assistance Working Group (SFA WG), SC, Coordination Council, and a variety of Training and Education organizations that include MCTOG, CAOCL, and MCCMOS.

Our Corps generally accepts the approach taken by DoD and the JS that there are two general methods of warfare applied by U.S. forces: traditional and irregular. The distinction drawn between these two definitions is useful to thinkers and planners. The future operating environment requires Marines to combine and integrate capabilities in different ways for effective application against irregular and hybrid threats.

There are five principal activities that can be taken in sequence, in parallel, or in lended form to address irregular threats: (1) counterinsurgency, (2) stability operations, (3) Security Force Assistance/Foreign Internal Defense (SFA/FID), (4) counter-terrorism, and (5) Unconventional Warfare, each with their own components and elements which Marines either conduct or support.

Our Small Wars legacy is significant and understanding and appreciating it provides a glimpse into the future operating environment. Small Wars is the lens through which the Service understands and views IW.

**ORGANIZATION**

The Center for IW achieved full operating capability in October 2011 to institutionalize our Corps’ understanding and strengthen IW related capabilities per the CMC planning guidance (2010). To do this, the organization is both a center and a warfighting integration division, which consists of 5 branches of 12 Active Duty Marines and 3 civilian employees.

**MISSION**

SWC/IWID identifies, coordinates, and integrates IW, IO, CA, PA, COMCAM capability development initiatives across DOTMLPF within our Corps. This enhances Service capabilities and capacities to conduct operations against irregular, hybrid or conventional adversaries. In this role SWC/IWID: advises leadership, influences policy, assists in identifying training and education IW gaps and requirements, assesses service capabilities to conduct IW, maintains an IW Community of Interest, and represents the service in all aspects of IW.

The Small Wars Center serves as a source of subject matter expertise and represents the DC, CD&I to appropriate U.S. Marine Corps, joint, interagency, and multi-national partners on IW related matters. The Center conducts outreach to other military and civilian entities with a shared interest in IW.

**PURPOSE**

The Small Wars Center exists to institutionalize and strengthen IW and related capabilities across the operational spectrum with particular emphasis on small wars and IW operational challenges. SWCIWID does so primarily by coordinating and supporting improvement and integration of IW activities into training and education programs and curricula, through research of best practices, supporting doctrinal development, and providing subject matter expertise to Marine leaders and organizations.

**MARINE CORPS SECURITY COOPERATION GROUP (MCSCG)**

In October 2011, MCSCG was established as a unique command that consolidates all facets of SC to include advisor skills, training and assessment expertise, and security assistance program management.

MCSCG is commanded by a Marine colonel and has a total of 203 personnel. MCSCG’s personnel is organized into a headquarters staff, instructor group, and regionally aligned coordination, liaison, assessment, and training teams (CLATTs). This command is a subordinate element of Marine Forces Command (MARFORCOM).

The MCSCG mission is to execute and enable SC programs, training, planning, and activities in order
to ensure unity of effort in support of our Corps and Regional Marine Component Command (MARFOR) objectives, and in coordination with operating forces and MAGTFs.

These include assessments, planning support, SC related education and training, and advisory support to ensure the accomplishment of U.S. Marine Corps and Regional Marine Force (MARFORs) Component Command SC objectives. MCSCG achieves this by concentrating on three SC focus areas: build relationships, facilitate access, and build partner capacity (BPC).

MCSCG accomplishes its mission through six principal lines of effort in order to provide integrated SC solutions:

1. Security Assistance/International Programs:
   - coordinate and manage Security Assistance education and training programs;
2. Foreign Security Force – Capability Based Assessments: conduct detailed and comprehensive assessments that inform the SC Planning Cycle;
3. SC Engagement Plans: develop long-term and enduring SC Engagement Plans with our partners and provide deployable planning support elements to the regional MARFORs;
4. Education: provide resident and deployable instruction to our personnel assigned to manage SC activities;
5. Training: provide SC training to Marines tasked to conduct SC missions;
PILLAR 3: CAPABILITY & CAPACITY TO MEET DOD STRATEGIC REQUIREMENTS
Section 1:
Amphibious and Pre-Positioning Ships
Introduction

The United States is a Global Maritime Nation, which remains the world’s largest economy, and is critically dependent on the global commons for our livelihood. Over 90 percent of the world’s commerce travels by sea. Global populations continue to shift to the littoral regions along the oceans’ coastlines, and 21 of the world’s 28 megacities lie within 62 miles of a coastline. Protecting our citizens, allies, and interests in this global system is necessary for both our prosperity and security.

The sea provides the primary global common through which American power is projected. Our Marines (an inherently naval force) and the amphibious warships, which carry them, use the oceans as maneuver space in order to influence potential crises from the sea without forcing escalation or aggravating sovereignty. Amphibious forces are designed to provide a wide range of capabilities from the sea. Our Marines can linger unseen over-the-horizon or provide a visible deterrent. Our presence equals access, which creates options and decision space for our Nation’s leaders. With modern aviation and surface connectors, our forces can provide a kinetic strike or responsive maneuver from hundreds of miles out to sea.
CHAPTER 3: PROGRAMS

MARITIME SUPPORT TO EXPEDITIONARY OPERATIONS

During the 1920s and 1930s, the U.S. Navy and our Corps began experimenting with new concepts and techniques that would change the way they conducted expeditionary operations. The U.S. Navy experimented with aircraft carrier operations using a converted coal ship and two partially completed battle cruisers.

We experimented with amphibious tractors, close air support, and combined arms to develop doctrine, concepts of operations, and training for amphibious operations. The inter-war years of experimentation and concept development resulted in a U.S. Navy and U.S. Marine Corps team that won the war in the Pacific during World War II.

Today, we are at a similar point in the evolution of new expeditionary capabilities. A similar commitment to experimentation and concept development is shaping our Corps and the U.S. Navy for the 21st Century. The concept of sea-basing is maturing and becoming a reality as new platforms and technologies that allow us to operate more effectively from a sea base are delivered.

Until recently, Marines have been able to conduct sea-based operations only from amphibious shipping, because today’s pre-positioned materiel and equipment can be employed only once forces are assembled ashore. Additionally, our pre-positioned equipment has been perceived as a “break glass in time of war” capability. It is no longer primarily reserved for major combat operations.

Meeting the demands of today’s security environment means that our amphibious and pre-positioning assets must be more integrated to better support steady-state operational requirements. We must also eliminate the false perception that amphibious and pre-positioning capabilities are separate and distinct. Amphibious and pre-positioning capabilities are complementary and in the future will become more interoperable and mutually supportive across the ROMOs. Both capabilities must evolve to provide greater utility, particularly in IW and other low- to mid-intensity operations, while retaining full capability to support major combat operations. In particular, our MPF must develop a full at-sea arrival and assembly capability to better support maneuver operations ashore.

EXPEDITIONARY NAVAL FORCES IN SUPPORT OF NATIONAL STRATEGY

The Tri-Service A Cooperative Strategy for 21st Century Seapower states that our Corps’ forward deployed and globally engaged expeditionary forces, with the U.S. Navy and U.S. Coast Guard, “…act across the full ROMOs to secure the United States from direct attack; secure strategic access and retain global freedom of action; strengthen existing and emerging alliances and partnerships; and establish favorable security conditions.”

Most significantly, these “persistently present and combat-ready” maritime forces also “provide the Nation’s primary forcible-entry option in an era of declining access.”

Our amphibious and pre-positioning capabilities contribute to the Joint Force’s expeditionary capability and fulfill the Nation’s maritime strategic imperatives as follows:

- limiting regional conflict with forward deployed, decisive maritime power;
- deterring major-power war;
- winning our Nation’s wars;
- contributing to homeland defense in depth;
- fostering and sustaining cooperative relationships with more international powers;
- preventing or containing local disruptions before they impact the global system.

Our expeditionary forces operate in concert with the U.S. Navy and the U.S. Coast Guard. These forces may employ from a sea base to complement other joint means of projecting influence and power. These forces leverage the advantages afforded by our command of the seas and ability to dominate the maritime domain to conduct operations in the littorals. Our Corps’ core competencies are the foundation for our expeditionary forces’ significant contributions to the Nation’s security.

OPERATIONAL ROLE OF MARINE CORPS EXPEDITIONARY FORCES

Our strategies and concepts address the ability to: maintain open and secure sea lines of communication for our maritime nation; maneuver across and project power from the sea; work with partner nations and allies to conduct humanitarian relief or noncombatant evacuation operations; and conduct persistent and sustained littoral operations along any coastline in the world.
The inherent versatility and flexibility of amphibious forces — exemplified by their ability to conduct missions across the ROMOs — achieves advantages disproportionate to the resources employed. An amphibious capability creates four strategic benefits for a nation that depends on its ability to exploit its command of the seas to project influence and power, as follows:

• Increased Freedom of Action: Amphibious forces can use the maritime domain as a base from which to conduct operations. They can loiter indefinitely in international waters and maneuver ashore at the time and place of their choosing.

• Deterrence: While a standoff strike is sometimes an adequate response, other situations require the rapid insertion of sustainable combat forces — “boots on the ground” — to underscore the Nation’s commitment to an ally or friend.

• Assured Access: Amphibious forces contribute unique and essential capabilities toward the Nation’s ability to:
  » take advantage of the freedom of the high seas;
  » enter a region without regard;
  » access constraints and impediments;
  » sustain sea-based operations almost indefinitely without need for in-theater host-government support;

• Uncertainty for Adversaries: A credible forcible-entry capability compels potential adversaries to invest in a broad range of systems and spread their defenses over larger areas of concern.

Our Corps’ lengthy experience in conducting forward engagement and SC operations in the littorals has dispelled the misperception that forcible-entry is the only yardstick by which to measure the requirement for amphibious capability and capacity.

In today’s security environment, relevant metrics are the capability to conduct persistent forward engagement activities and provide a crisis response force while retaining the capability to respond to major contingencies.
Amphibious warships provide the Nation with expeditionary forcible-entry capability, and embarked Marines make this capability the most formidable in the world. Expeditionary forcible-entry development and maintenance is our responsibility under U.S. Code Title 10.

Our Corps’ operational requirement is for two Marine Expeditionary Brigade Assault Echelons (MEB AE) of forcible-entry capability reinforced with two additional MEBs from the MPF. The two-MEB AE forcible-entry capability requires 34 amphibious warfare ships (17 ships per MEB). The AE requires 38 ships in consideration of the operational availability of amphibious ships with the 2.0 MEB lift requirement. Of these 38 ships, 11 must be aviation-capable large-deck ships — Landing Helicopter Assault (LHA), Landing Helicopter Dock (LHD), or Landing Helicopter Assault (Replacement) LHA(R) — to accommodate the MEB’s ACE.

Currently, the DON plans to maintain a fleet of 33 amphibious ships. This combination of ships will support the MEB’s Assault Echelon. Nine large-deck ships (eight Wasp-class LHDs and one Tarawa-class LHA) will be in service in 2014. In 2009, the eighth Wasp-class multi-purpose amphibious assault ship, the USS Makin Island (LHD 8), was delivered. LHD 8 is similar to LHD 1 through LHD 7, except that LHD 8 is powered by gas turbine engines and has all-electric auxiliaries.

AMPHIBIOUS ASSAULT SHIP REPLACEMENT (LHA(R))

The amphibious fleet is organized for persistent forward presence as the foundation for other critical roles, missions, and tasks. It includes nine ARGs each consisting of three amphibious ships. The centerpiece of the ARG is a Wasp (LHD 1)-class or Tarawa (LHA 1)-class amphibious assault ship. The sole Tarawa-class amphibious assault ship will be decommissioned in FY14.

The first of two transitional LHA Replacement (LHA(R)) ships, the USS America (LHA 6), began construction in 2008. LHA 6 design modifications enhance aviation support for MV-22B Osprey and F-35B Joint Strike Fighter (JSF) operations. Removal of the well deck provides for an extended hangar deck with two wider high-bay areas, each fitted with an overhead crane for aircraft maintenance. Other enhancements include a reconfigurable C2 complex, a hospital facility, and extensive support activities.
Efforts are underway to incorporate a well deck into the FY16 LHA(R) platform and to incorporate changes in the basic ship design to ensure optimized aviation and surface operations and service life.

SAN ANTONIO-CLASS (LPD 17) AMPHIBIOUS TRANSPORT DOCK SHIP

The LPD 17 San Antonio-class amphibious warfare ship represents the DON’s commitment to a modern expeditionary fleet. The first nine ships of the class have been commissioned:
- USS San Antonio (LPD 17)
- USS New Orleans (LPD 18)
- USS Mesa Verde (LPD 19)
- USS Green Bay (LPD 20)
- USS New York (LPD 21)
- USS San Diego (LPD 22)
- USS Anchorage (LPD 23)
- USS Arlington (LPD-24)
- USS Somerset (LPD-25)

The San Antonio-class LPDs are replacing the remaining ships of the Austin (LPD 4) class.

The LPD 17’s unique design expands force coverage and decreases the reaction times of forward deployed MEUs. In forcible-entry operations, the LPD17 helps maintain a robust surface assault and rapid offload capability for the MAGTF well into the future.

The San Antonio class warships incorporate advanced characteristics for amphibious ships. Each ship has 699 enhanced berths for embarked Marines, plus a surge capacity of another 101 berths.

Each also has a vehicle stowage capacity of 24,600 square feet, cargo-stowage capacity of more than 33,000 cubic feet, and a well deck sized for two landing craft air cushions (LCAC) or one landing craft utility (LCU).

Flight decks can support operations by two CH-53E/K Super Stallions, two MV-22B Osprey tilt-rotor aircraft, or a mix of AH-1Z attack and UH-1Y utility helicopters.

The ships in this class are also outfitted with two Rolling Airframe Missile launchers for self-defense and incorporate design features that significantly reduce their radar cross-sections when compared to previous amphibious ships.

LANDING CRAFT AIR CUSHION (LCAC)/SHIP TO SHORE CONNECTOR (SSC)

The LCAC is a high speed, fully amphibious craft with a design payload of 60 tons at speeds in excess of 40 knots and a nominal range of 200 nautical miles.

The LCAC’s ability to ride on a cushion of air allows it to operate directly from the well decks of amphibious warships and to access more than 70 percent of the world’s beaches, compared to 17 percent for conventional landing craft. A service life extension program (SLEP) began in late 2000 for the 72 active LCACs, which provides major refurbishment that will extend craft life to 30 years.

The goal is to carry out five LCAC SLEPs per year. During SLEP, LCACs receive a system upgrade that includes new command, control, communication, and navigation equipment; buoyancy box and rotating machinery refurbishment; enhanced engines; and upgrades of the current skirt system with an improved deep skirt, thereby increasing the performance envelope.

The SSC program is developing a replacement for the in-service LCACs as these craft reach the end of their service lives. In 2007 the U.S. Navy Resources, Requirements Review board selected the 74 Short-Ton Air Cushion Vehicle concept in an approved Initial Capabilities Development Document as the LCAC replacement platform.

The Joint Requirements Oversight Council approved the CDD in 2010. In 2012, Texatron, Inc. was awarded the contract for the detail, design, and construction of an SSC test and training craft.

EVOLUTION OF MARITIME PRE-POSITIONING

The MPF Program provides equipment and supplies to enable the rapid deployment and employment of two MEBs from pre-positioned shipping. The MPF program will continue to evolve to meet the challenges of a constrained fiscal environment as well as a strategic environment with greater anti-access challenges.

The elimination of the Maritime Pre-positioning Ship Squadron-One (MPSRON-1) took place in FY12. As a result, its ships were transferred to the U.S.
Transportation Command’s Strategic Sealift Fleet, or reassigned to MPSRON-2 or-3. We collaborated with the U.S. Navy extensively to enhance the capabilities of the two remaining MPSRONs, to include the addition of a legacy MPF ship to each MPSRON. This enhancement attained: a higher lift capacity of the MEB requirement per MPSRON, retained critical seaborne enabling capabilities within each MPSRON, and maintained the MPF’s ability to support GCC requirements.

In addition, our Corps’ afloat and ashore pre-positioning capabilities are programmed for other significant changes through 2025 and beyond. Changes will occur in the afloat program, where the capability to conduct sustained sea-based operations with limited host nation infrastructure in the Joint Operating Area (JOA) will provide a greatly expanded set of options for the CCDRs. A detailed integration plan has been developed to ensure the new capabilities are seamlessly incorporated into the existing program.

The first stages of this plan have already been realized. Each MPSRON has increased organic ship-to-shore movement capability with the fielding of the Improved Navy Lighterage System (INLS). The INLS can operate in higher sea states and provides greater throughput capacity than legacy lighterages.

The MPF has also been recapitalized with Military Sealift Commands by either purchasing or terminating the program’s leased ships. Another major enhancement was the integration of four Large Medium-Speed Roll-On/Roll-Off (LMSR) ships which provide more stowage space to accommodate the larger and greater quantity of MEB equipment.

While the pre-positioning program provides significant capability to the CCDRs, it is limited in some areas, especially in the ability to conduct sea-based operations. The closure of forces requires a secure airfield and a secure port or beach landing site in the JOA — a significant constraint to some operations.

In-service MPF platforms can embark limited personnel pier-side, at anchor, or while in transit. However, the platforms lack the billeting and support services to facilitate a sea-based force. Additionally, equipment and supplies are stowed on the ships to maximize the use of all available space.

This dense packing of the ships precludes the conduct of assembly operations aboard MPF ships. MPF platforms can support the limited employment of forces from a sea base, but this requires significant planning prior to back-loading the ships during the preceding MPF maintenance cycle. Also, since there are no maintenance facilities aboard MPF vessels, all reconstitution must be done ashore before back-loading any of the equipment or supplies.

Dry cargo/ammunition ships, recently added to the MPSRONs enable selective access to and the offload of supplies, allowing the building of tailored sustainment packages for forces operating ashore. Adding Mobile Landing Platforms in FY15 will provide the capability to conduct at-sea, sea state-3, selective offload, and vehicle/cargo transfer from an LMSR to SSC craft.

During this transition period, training and exercises will focus on the development of new TTPs as well as doctrinal and organizational changes to fully realize the enhanced ability and operational utility of afloat pre-positioning. The addition of these ships provide an immediate operational benefit to CCDRs.

JOINT HIGH SPEED VESSEL (JHSV)

The JHSV will provide the critical intra-theater, surface connector capability that will enable the joint force commander to project forces and sustainment at high speeds over operational distances. The JHSV will be capable of self-deploying to the theater of operations and, once in-theater, provide the high speed means to move forces and supplies within that theater.

Specifically, the JHSV will provide the capability to deliver equipment, personnel, and supplies over the intra-theater ranges to shallow, austere, and degraded ports. It will provide support to sea-basing and will bridge the gap between low speed sealift and high speed airlift.

The JHSV lead ship — USNS Spearhead (JHSV 1) — completed acceptance trials in 2012 and has been delivered to the Military Sealift Command. Three additional ships are in various stages of construction at Austal USA in Mobile, AL. The current contract is for 10 ships. Two high speed commercial ferries, renamed the USNS Guam and USNS Puerto Rico have also been purchased. In the interim, high speed vessels will continue to be leased in the PACOM AOR to satisfy requirements.
PILLAR 4: INFRASTRUCTURE SUSTAINMENT
Section 1:
Providing Capable Bases and Stations
Introduction

Our Corps’ installations are key national defense assets, which offer a unique combination of ocean, coastal, riverine, inland, and airspace training areas. They are essential components in the foundation of our national defense as they directly support the combat readiness of the Marine Corps Operating Forces. Installations are the force projection platforms that support training, sustainment, mobilization, deployment, embarkation, redeployment, reconstitution, and force protection.

Our installations have entered an era of rapid change and face significant challenges in providing high quality base support, meeting stringent federal mandates to reduce energy and water consumption, mitigating environmental concerns, and improving sustainability. Additionally, our installations face threats to their long-term operational viability from incompatible development near critical training ranges and maneuver areas.

Our installations are a critical component of the Supporting Establishment and constitute the “fifth element” of the MAGTF, and are fundamental to combat readiness, essential training provisions, and support for the launch, sustainment, and reconstitution of Marine Corps Operating Forces. Installations are integral to the quality of life of Marines, Sailors, and their families.
INSTALLATIONS MANAGEMENT

MCICOM is the single authority for all installations matters in our Corps. MCICOM exercises C2 of regional installations commands, establishes installations-related policy, and prioritizes resources in order to optimize support to the operating forces, Marines, Sailors, and their families.

The vision of MCICOM is to consistently provide high quality and affordable support to the operating forces while exercising responsible stewardship of the natural and cultural resources aboard our installations through positive and effective environmental management. Our installations will follow best business practices to ensure that this vision is achieved effectively and efficiently.

Core mission areas in installation management include:

- training and operations support;
- installation protection;
- facilities construction, sustainment, restoration, and modernization;
- base operations support;
- environmental, natural, and cultural resources stewardship;
- utilities conservation and development of renewable energy sources;
- logistics support;
- Marine, family, and community support;
- Information Technology
- command and staff support.

The overarching goal of installation management is to support our warfighting mission.

FACILITIES PLANNING

Our Corps’ readiness, effectiveness, and responsiveness depends upon the availability and condition of our materiel assets. The Facilities Planning Process enables readiness by ensuring that we adequately identify requirements for current and future missions. This process also ensures that the land and facilities are available at the right time in the right place to support those requirements.

Our facilities planning is the process of providing for the efficient use and orderly development of real estate and facility resources in response to assigned missions, functions, and tasks. It is important that land and facilities be accorded the same commitment, concern, and support as other warfighting systems.

The Marine Corps Facilities Planning and Programming System (MCFPPS) is the tool used to determine the facilities required to accomplish assigned missions, utilize existing assets, and plan for eventual facility disposals and acquisitions.

The system is a comprehensive and defendable means to meet the following objectives: describe the requirements of all units; evaluate and allocate the available assets; and identify the shortages or surpluses. The process then supports decisions to repair, reassign, or demolish facilities to build additional spaces.

The Installation Master Plan is the blueprint that guides facility development and related decisions across the FYDP and beyond, and documents how we will support readiness by configuring installation assets to meet the requirements of the Operating Forces. Additionally, Master Plans are oriented toward meeting operational and training requirements by providing our Marines and supporting military personnel with a place to live, operate, and train, and provide a supporting platform to prepare Marines for deployments.

Master Planning is the long-range component of facilities planning and does the following: encompasses the vision of the installation; highlights the direction that must be taken to accommodate its mission; establishes the relevance of the installation as our needs change; takes a practical and realistic look at the constraints and opportunities on the installation; and transforms and keeps the future plans of the tenants up to date with the surrounding community as it guides the development of the installation over time.

ENVIRONMENTAL, NATURAL, AND CULTURAL RESOURCE STEWARDSHIP

Our Corps serves as custodian and steward of approximately 2.3 million acres of some of the most environmentally sensitive and diverse areas of the country and the world, including large portions of the Mojave and Sonoran Desert, some of the last remaining sub-tropical rain forest in Asia, and numerous fresh and saltwater waters and wetlands.
These lands provide areas where our Marines live and train as well as habitats for an abundance of wildlife species, including 59 federally listed threatened and endangered plant and animal species.

These same lands contain a diversity of cultural resources, including: archaeological sites; historic buildings, structures, and objects; cultural landscapes; and resources of traditional, religious, or cultural significance to Native American tribes or Native Hawaiian organizations.

The resources reflect thousands of years of human activity, including important developments in our Nation’s history and the role of the military in that history. They also embody our shared historical experiences. Many of our installations are located in areas with regional air and water quality issues that require us to meet stringent requirements to ensure human health, environmental protection, and mission success.

Effective environmental management ensures mission readiness by allowing our Corps to sustain and enhance these lands, while protecting the health of our citizens, Marines, and the valuable resources entrusted to us by our Nation. Land is a finite, valuable commodity. Unless properly managed, our lands can become damaged to the point where realistic training can no longer take place. Our use of land must be sustainable so our Corps may use its lands frequently and repeatedly.

In addition, the American people have placed intrinsic values on stewardship of the environment and natural and cultural resources that occur on our lands. These values have been translated into laws requiring us to protect and preserve human health and the environment. In most instances, Federal and state laws and regulations apply to us in the same way they do to our civilian counterparts. It is our policy to comply with all applicable environmental requirements; failure to comply with these laws can lead to fines, penalties, and judicial, legislative, and executive decisions denying our Corps access to land for training.

Compliance with federal environmental laws is often assessed as part of environmental planning under the National Environmental Policy Act (NEPA) and Executive Order 12114 for overseas installations. NEPA requires federal agencies to consider the environmental impacts of their actions before implementation, document those considerations, and involve the public in their planning process. Adherence to the NEPA process can provide an efficient method of protecting, restoring, and enhancing the environment while achieving our Corps’ mission. Environmental planning not only provides a single, systematic way to ensure that we fully consider all environmental requirements, but brings together all of the stakeholders and interested parties involved in an action. Environmental Planning also improves the overall planning process through early engagement of stakeholders to identify and avoid potential conflicts and identify optimal courses of action.

Typical stakeholders include outside agencies and organizations including the Environmental Protection Agency, U.S. Fish and Wildlife Service, State fish and wildlife management agencies, State Historic Preservation Offices, Native American tribes, and Native Hawaiian organizations, among others. By complying with environmental requirements and engaging in cooperative ecosystem and adaptive management approaches for sustained use of these resources, our Corps preserves the land, water, and airspace needed to sustain military readiness while maximizing environmental protection.

MILITARY CONSTRUCTION

The Military Construction program provides investment in long-term capability by building facilities critical to our mission including training, housing, quality of life, operational, logistics, and maintenance projects. Military construction focuses on supporting new platforms/capabilities, replacing inadequate facilities, and correcting safety and environmental deficiencies.

The FY15 proposal of $251 million meets these concepts with projects to support F-35 and MV-22 deployment on Japan, aviation squadron moves to Hawaii, more robust training support on Guam, training support facility Fleet Anti-terrorism Security Teams, and safety & environmental compliance-related projects.

INFRASTRUCTURE SUSTAINMENT

Facilities sustainment supports our mission by ensuring that facilities are maintained and repaired so they can effectively be used for their designated purposes. As resources overall become more
constrained and sequestration continues to reduce our facilities investment accounts, our Corps will continue to rely on the sound stewardship of existing facilities and infrastructure to support mission requirements.

In FY14, we again programmed facilities sustainment funding at 90 percent of the DoD Facilities Sustainment Model (FSM), resulting in a facilities sustainment budget of $691 million. However, sequestration will cut $136 million in facilities sustainment, reducing our funding to 72 percent of the FSM requirement in FY14. This could result in some significant facility degradation if these cuts cannot be mitigated.

Since FY04, we have been able to execute over 90 percent of the OSD Sustainment Model each year. Even with sequestration cuts in FY13, we were able to find such opportunities and execute 98 percent of the FSM requirements. We will again seek such opportunities to mitigate the effects of sequestration on facilities sustainment in FY14.

INSTALLATION ENERGY

Our Corps is on a steady course to meet Congressional energy efficiency and renewable energy mandates, but those efforts support a greater imperative. Our Corps recognizes the operational imperative to address an energy strategy at all levels of leadership and in all theaters of operation, from our “Bases to the Battlefields”. Critical to this is a shared “ethos” within our force that efficient use of vital resources increases combat effectiveness.

We must educate and inform everyone who lives, trains, and works on our installations — energy users — about their daily impact on the energy footprint and then provide them with tools to manage and improve their energy and water use. Awareness starts with an understanding of the value of energy, at home and deployed, and ends with accountability.

By leveraging that accountability with continued implementation of prudent management practices and energy efficient technologies, we will maximize funding available for investment in future operational capabilities. Further integration of renewable energy and alternative fuel resources will continue to produce utility cost savings and support energy security by both improving the reliability and resiliency of utility distribution systems and ensuring power for critical infrastructure.

Advanced metering infrastructure and building and utility control systems will provide decision-makers with the capability to make informed operating decisions. In the end, we increase installation energy security while reducing waste.

NON-TACTICAL VEHICLES (NTV) AND EQUIPMENT

We have implemented several innovative transportation (non-tactical vehicle) energy programs and made significant progress in meeting mandated compliance requirements, which is outlined in our Annual Alternative Fuel Vehicle Acquisition Report. Our Corps has achieved and exceeded the Federal petroleum reduction mandates of 2 percent annually by reducing total non-tactical vehicle inventory, reducing vehicle miles travelled, downsizing fleet vehicles, and adopting alternative fuel vehicles and infrastructure wherever practicable.

We have repeatedly exceeded the Federal mandates on acquisition of alternative fuel vehicles. In addition, we have achieved 13 percent alternative fuel usage, over twice the federal average of alternative fuel usage, as a percentage of total fuel usage. We will continue our efforts to reduce petroleum consumption by doing the following: coordinating command/fleet manager tasks and responsibilities; continuing Vehicle Allocation Methodology utilization studies to find inefficient fleet operations; implementing anti-idling policies; adopting efficient technologies such as telematics and hybrids; and identifying opportunities to use more alternative fuel to displace petroleum.
PILLAR 5:
EQUIPMENT MODERNIZATION
Section 1:
Equipping the Marine

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

The forward deployment of our infantry and special operations personnel often provides an effective and relatively low-cost solution to many of our Nation’s most vexing strategic problems. When Marines are ordered into harm’s way, we ensure they deploy with the most advanced and capable equipment available.

Our Corps’ weapon systems represent minimal investments to upgrade or field the finest lethal capabilities available. Likewise, the Marine Expeditionary Rifle Squad (MERS) continues to conduct research and development in concert with the U.S. Army to lighten the Marine’s individual load, and increase both lethality and overall capability in distributed environments.
CLOSE QUARTER BATTLE PISTOL (CQBP)

DESCRIPTION
The CQBP is a COTS M1911 style .45-caliber pistol that replaced the government built M45. The CQBP is used in close quarter missions, and supports dual arming personnel assigned to special operations, reconnaissance, and special response teams for use in close quarter missions.

OPERATIONAL IMPACT
This program provides dual arming capability to Marines assigned to special operations, reconnaissance, and special response teams for use in close quarter missions.

PROGRAM STATUS
This program is in sustainment after completion of fielding at the end of FY13.

PROCUREMENT PROFILE
Fully fielded for FY14 and FY15.

OPERATIONAL VIEW

RECEIVING UNITS
- I MEF
- II MEF

DEVELOPER/MANUFACTURER
Colt Defense LLC*, Hartford, CT

FOLLOW ON TO SHOULDER LAUNCHED MULTI-PURPOSE ASSAULT WEAPON (FOTS)

DESCRIPTION
The Shoulder Launched Multi-Purpose Assault Weapon (SMAW) MK-153 Mod 2 launcher is the materiel solution to the FOTS capability requirement defined in the FOTS CDD (change 2). The MK-153 Mod 2 launcher provides an upgraded targeting system that uses an integrated day/night Thermal Weapon Sight (TWS) and LRF. The MK-153 Mod 2 launcher is functionally and physically compatible with existing SMAW rocket ammunition.
CHAPTER 3: PROGRAMS

OPERATIONAL IMPACT

The MK-153 Mod 2 launcher increases system reliability, accuracy, and gunner survivability while reducing overall system weight and gunner exposure. The MK-153 Mod 2 system availability will increase due to the removal of several maintenance intensive components, including the 9 mm spotting rifle from the SMAW launcher.

PROGRAM STATUS

The MK-153 Mod 2 Launcher achieves IOC in FY16 and FOC in FY18.

RECEIVING UNITS

- I MEF
- II MEF

DEVELOPER/MANUFACTURER

NSWC Dahlgren Division

OPERATIONAL VIEW

MARINE EXPEDITIONARY RIFLE SQUAD (MERS)

DESCRIPTION

The MERS is responsible for the “Squad as a System.” The focus is on the individual Marine and everything worn, carried, and consumed by the rifle squad as a capability provider. MERS is the steward of the Marine rifle squad’s suite of equipment and works with all the program managers at MCSC to optimize and integrate the rifle squad’s equipment.

The program founded the Gruntworks Squad Integration Facility located on Camp Barrett at The Basic School, MCB Quantico, VA. The Gruntworks facility provides a venue to engineer, evaluate, and refine the capabilities and limitations of all equipment in development and under consideration for procurement and issue to the infantry squad. This dynamic facility uses a human factors lab, an equipment prototyping and modification workshop,
a mobility platform integration area, and an Operational Environment Simulator focused on equipment evaluation to accomplish equipment modernization and integration initiatives. Human Systems Integration and ergonomics are applied to the physical integration of the infantry squad’s equipment.

**OPERATIONAL IMPACT**

Ergonomic solutions coupled with weight, stiffness, and bulk reductions enhance the mobility of the squad while providing simple, reliable, and trainable integrated equipment solutions.

**PROGRAM STATUS**

Integration efforts during 2014 include:

- refinement of a metric for mobility utilizing MCLEAP;
- integration of the Joint Battle Command – Platform (JBC-P) and centralized power for the Marine rifle squad;
- improvements in the weight distribution and load carriage methodology within the squad using metrics for mobility;
- ergonomic enhancements to the infantry system;
- thermal strain and physiological studies in the tropical environment;
- research into efficient power generation and power/data distribution on the Marine;
- integration and anthropometry of the Marine in mobility platforms under development such as JLTV, or the Amphibious Combat Vehicle;
- integration of the unique infantry items carried in the billet positions within the rifle squad.

**OPERATIONAL VIEW**
SNIPER SYSTEM CAPABILITY SET

DESCRIPTION
The Scout Sniper Capability Set includes precision weapons, ammunition, and equipment that enable scout sniper teams to move, hide, and engage/disengage opposition forces. Assets employed by scout sniper teams provide a high level of accuracy with a minimal signature, reducing the risk of compromise/detection.

This initiative provides for improved capabilities such as an integrated weather station and ballistic computer which allows snipers to quickly and accurately determine a ballistic solution and effectively engage targets.

OPERATIONAL IMPACT
This set provides the weapons, ammunition, and equipment necessary to provide the Operating Forces with a precision engagement capability.

PROGRAM STATUS
This program is in sustainment after completion of fielding at the end of FY13.

RECEIVING UNITS
• I MEF
• II MEF

PROCUREMENT PROFILE
Fully fielded for FY14 and FY15.

DEVELOPER(S)/MANUFACTURER(S)
• Barrett Firearms Manufacturing, Murfreesboro, TN
• Knight’s Armament Company, Titusville, FL
• Trimble, Sunnyvale, CA
• Horace Vision, San Bruno, CA

SQUAD THERMAL SYSTEM (STS)

OPERATIONAL VIEW

The Squad Thermal System (STS) will better enable Marines to detect and recognize potential targets, danger areas, and items of interest in low light as well as all other lighting conditions. The integrated laser pointer will allow Marines to designate potential threats to other team members equipped with image-intensified night-vision devices, thus improving situational awareness and facilitating control of organic weapon fire.
DESCRIPTION

The STS will be a weapon-mounted clip on battery-operated thermal sight used in conjunction with the current AN/PVQ-31 RCO. The STS’s infrared pointer will enable target acquisition and engagement in low light or complete darkness when used in conjunction with I2 night vision devices.

The STS will enable users to detect, recognize, and identify potential targets, danger areas, and items of interest during the day or in adverse conditions such as light rain or snow, dry smoke, and low light to total darkness. The STS will have a remote keypad, to enable the user to manipulate key controls while maintaining positive control of his weapon.

OPERATIONAL IMPACT

This program will provide an individual weapon thermal sight and infrared pointer capability to all squad leaders and fire team leaders within Marine infantry battalions.

PROGRAM STATUS

This program scheduled for source selection and contract award in FY15.

RECEIVING UNITS

- I MEF
- II MEF

PROCUREMENT PROFILE

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Section 2:
Ground Combat Tactical Vehicles

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

The objective of GCTV modernization and sustainment is to integrate the management of vehicle capability utilizing a portfolio based approach. Capability is expressed in the form of requirements. Requirements are aggregated, stated, and validated for individual systems in capability documents. Integrated management strives to reconcile requirements with: operational demands, threat projections, long-term strategy objectives, vehicle lifecycles, the budget process, systems engineering principles, and the acquisition system..

The GCTV portfolio is purpose built to source a balanced mix of ground combat and tactical vehicle systems from which units can task organize. The GCTV portfolio is divided into the following capability categories: Light, Medium and Heavy Combat and Tactical Capabilities, which provide the capabilities and capacities demanded by the broad span of operating environments and threat sets.

Two key functions of the portfolio are the coordination of modernization requirements and the sustainment of legacy systems. Modernization activities include replacement of legacy systems with modern systems. Amphibious vehicles are the number one priority within the portfolio. The second most pressing priority is partial replacement of the legacy HMMWV fleet with a modern truck. Modernization also includes focused upgrades in capability such as replacement of a legacy turret weapon system with a modern one. Sustainment activities include those actions designed to manage or counter obsolescence, address safety issues, and sustain or extend system service life. As an example, funding exists to outfit our vehicles with necessary modifications to meet our
sustainment needs.

STATUS

In the near-term, we remain focused on mitigating or closing the portfolios two most pressing shortfalls in capability: Heavy Combat Capability (Assault Amphibian Modernization) and Light Combat & Tactical Capability (HMMWV Modernization and JLTV Sustainment).

The AAV is deployed worldwide and is in daily use across multiple theaters. The upgrade of the AAV is a critical activity that will modernize the legacy system with materiel improvements that increase both force protection and platform survivability. Basic in nature, these upgrades work to close one of five shortfalls in Assault Amphibian capability and help to keep the fielded system operationally relevant and competitive until it can be replaced. During this year a milestone decision is anticipated, which will move this effort into program status. Concurrently, we are pursuing a wheeled Amphibious Combat Vehicle (ACV) as a complement to the AAV.

The HMMWV is no longer in production and requires significant modification to safely carry payload and legacy armor packages that have been added over the last decade of combat. The HMMWV Sustainment and Modification Initiative (HSMI) will increase payload capacity and permit safe operation of legacy armored HMMWV. The HSMI program is complementary to JLTV, as part of a balanced Light Combat and Tactical Vehicle portfolio. Our Corps’ future light fleet will consist of one-third JLTV, one-third armored HMMWV/HMSI, and one-third unarmored legacy HMMWVs. The JLTV combines unarmored HMMWV mobility and payload with armored HMMWV protection and M-ATV underbelly protection. The JLTV is fully transportable and provides a modern
and enduring solution for protected mobility in the most stressing environments in which the MAGTF will operate.

**ASSAULT AMPHIBIOUS VEHICLE (AAV7A1) FAMILY OF VEHICLES (FoV) UPGRADE**

**DESCRIPTION**
Initially fielded in 1972, the AAV remains the primary general support armor personnel carrier (APC) in support of Marine infantry. The AAV family of vehicles (FoV) consists of the:

- **AAVP7A1 Reliability, Availability, Maintainability/Rebuild to Standard (RAM/RS) APC**
- two supporting mission role variants:
  - AAVC7 RAM/RS C2
  - AAVR7 RAM/RS Recovery

The AAV provides embarked infantry with ship-to-objective protected mobility, on-the-move C2, as well as support by fire with organic weapons. In the upcoming fiscal year the AAV will remain deployed worldwide and serve as our Corps’ only APC and the Nation’s only fully amphibious APC. Key activities to modernize and sustain the AAV include the AAV Survivability Upgrade Program, application of the Emergency Egress Lighting System, and other modifications to improve force protection, vehicle safety and reliability. These efforts combined with depot maintenance and planned program management projects serve to keep the AAV operationally available and effective in support of current deployments into the future.

The AAV Upgrade Program will improve AAV force protection and survivability. The program consists of a modest set of capability upgrades, and includes integration of additional armor, improved protected fuel storage, and blast attenuating seating.

Modifications to the power train and suspension will be made to maintain current land and water mobility performance and to counter the effects of additional armor weight. In total, these upgrades work
to increase operational effectiveness and better protect the Marines who will be employing these systems in the years ahead.

OPERATIONAL VIEW

OPERATIONAL IMPACT

The upgraded AAV will provide significant force protection and survivability improvements through increased protection against current and future threats.

The upgraded vehicles will also increase protection to embarked Marines and crew and improve the survivability of the vehicle system through improvements in physical armor systems and supporting subsystems within the hull of the AAV.

PROGRAM STATUS

The AAV Upgrade Program will enter the acquisition life-cycle at Milestone B during FY14 and begin the EMD phase of the acquisition system. Developmental Testing and Live-Fire Testing are planned for late FY16. Milestone C is planned during FY17 with IOC scheduled for late FY19.

RECEIVING UNITS

• I MEF
• II MEF

JOINT LIGHT TACTICAL VEHICLE (JLTV) FAMILY OF VEHICLES (FoV)

DESCRIPTION

The JLTV FoV is a joint U.S. Marine Corps /U.S. Army program to procure the next generation of light tactical vehicles and companion trailers. JLTV objectives improve the mobility and payload of the light tactical vehicle fleet while providing increased survivability through modular protection within the weight constraints of the expeditionary force.

The JLTV program will also minimize operations and maintenance (O&M) costs by maximizing vehicle commonality, increasing reliability and fuel efficiency compared to HMMWV, while garnering additional procurement savings through effective competition throughout program execution. JLTVs can be configured to support multiple mission packages derived from two base vehicle configurations: the 4-door Combat Tactical Vehicle and 2-door Combat Support Vehicle. The commonality of components, maintenance procedures, and training among all configurations will minimize total ownership costs.

Regional CCDRs require the ability to maneuver forces to meet the demands of missions throughout the ROMOs. The JLTV will support the most demanding missions, including Joint Forcible-Entry operations and crisis response from the sea. JLTV provides a maneuver support platform for ground forces with sufficient mobility, protection, and connectivity required to maintain pace with other mounted combat arms elements (such as infantry in fighting vehicles).

The JLTV provides protected mobility for maneuver forces and small units, supports the maneuver of infantry weapon systems around the close battle area, provides a platform supporting battle command, and provides sufficient payload to move combat support forces with their associated equipment. SA of the crew and occupants is supported with prewiring and onboard electrical power, which provides seamless integration of current and future systems such as the Warfighter Information Network-Tactical (WIN-T), intra-vehicle communications (IVC), radios, combat identification, position locator, and systems delivering a common operating picture (COP) and access to the Global Information Grid (GIG).

OPERATIONAL IMPACT

The JLTV FoV will be capable of operating across a broad spectrum of terrain and weather conditions. The approved JLTV CDD identifies the capabilities required for the next generation of light tactical vehicles to support joint forces across the full ROMOs, and to provide a vital force enabler, multiplier, and extender.

The intention of the joint service program is to replace a portion of the U.S. Army and U.S.
Marine Corps HMMWV fleet with JLTVs, to close JROC validated capability gaps, and as part of the ground equipment modernization effort. JLTV’s key requirements drive performance characteristics superior to the legacy HMMWV Expanded Capability Vehicle (ECV) with the additional protection and mobility required by the MAGTF and joint forces. The JLTV FoV will provide the warfighter with increased protection through the use of scalable armor solutions, while returning light tactical vehicle payloads lost due to the armoring of the HMMWV fleet. The JLTV FoV will also increase warfighter maneuver capability by providing expeditionary mobility on the modern battlefield. The vehicles will be transportable by CH53 rotary wing aircraft and amphibious/MPSRON ships.

PROGRAM STATUS
The JLTV program is in the EMD phase with Milestone C and the LRIP contract award is scheduled for FY15. We are a 50/50 partner with the U.S. Army, and both services remain aligned on key requirements and affordability targets. AM General, Lockheed Martin, and Oshkosh Corporation have each delivered 22 prototypes and trailers for government Testing and Evaluation through November 2014. Marine Corps Initial Operating Capability for the JLTV FoV is scheduled for December 2017 with FOC occurring in September 2021.

OPERATIONAL VIEW
RECEIVING UNITS
- I MEF
- II MEF
- III MEF

DEVELOPER(S)/MANUFACTURER(S)
- AM General, South Bend, IN
- Lockheed-Martin, Dallas, TX
- Oshkosh, Oshkosh, WI

ABRAMS M1A1 MAIN BATTLE TANK (MBT)
DESCRIPTION
The MBT remains an integral part of the MAGTF and provides a combat power capability for armored
maneuver, precision fires, and survivable close tank support for the GCE. Our MBT has been in our Corps’ inventory since 1989 and our plan is to continue service through 2050.

Our Corps’ MBT fleet modification kit program is keeping pace with emerging technologies and we will continue to effect state-of-the-art upgrades and modifications to maintain the tank’s dominance over present and future battlefield threats. Our latest generation of upgrades include: Stabilized Weapon Station, Ammunition Data Link, Abrams Integrated Display and Targeting System, and the Generation IV Abrams Ammunition Rack.

**OPERATIONAL IMPACT**

The MBT provides the MAGTF with the ability to attack, disrupt, and destroy enemy forces through precision long-range direct fires, armor protection, shock effect, and rapid maneuver. These effects can be both physical and psychological. Tanks may be task organized in close support of infantry units or employed as a tank heavy task force to execute armored maneuver.

During stability operations, tanks create an unmatched security presence. They enhance force protection and when the situation unexpectedly changes, they provide ground commanders 24/7 firepower, lethality, mobility and shock. It will remain in service through 2050 and planned and future upgrades will ensure battlefield dominance of future threats and challenges.

**PROGRAM STATUS**

**CURRENT**

The Stabilized Commander’s Weapon Station improves the lethality of the tank by enabling the tank commander to independently engage targets with the M2 .50-caliber Machine Gun while moving. The system allows the Tank Commander to engage targets simultaneously and provides for faster target acquisition, tracking, and targeting. The Stabilized Commander’s Weapon Station is currently being fielded and will be fully fielded in FY15.

The Multiple Purpose High Explosive Round was procured in 2009 and provides the capability to engage a wide array of target sets in three modes of operation: air burst, point detonation, and delayed detonation. The Ammunition Data Link allows the Tank Commander to select a mode of operation on the Multiple Purpose High Explosive Round while it is in the breach.

A limited number of tanks were modified with this capability for contingency operations in 2011. The data link allows the tank crews to maximize the Multiple Purpose High Explosive Round to its intended capability. Fielding the Ammunition Data Link to the remainder of the vehicle fleet begins in 2015.

The Generation IV Abrams Ammunition Rack improves the ammunition handling safety aspects of the tank as well as increasing the High Explosive Round storage capacity by 50 percent. The Generation IV Abrams Ammunition Rack begins fielding in 2014.

**PLANNED**

The Abrams Integrated Display and Targeting System includes a high resolution day, thermal camera and a fixed high resolution color display designed to streamline information flow, and serve as the tank’s Blue Force Tracking system display and interface. The Abrams Integrated Display and Targeting System allows the Tank Commander to accurately detect, recognize, identify, and engage targets under limited visibility conditions and at ranges approaching the full capability of the tank. The system will be the primary interface between the Tank Commander and the Stabilized Weapons Station, allows Main Gun and Coax target viewing, provides a smart screen solution to BFT, and possesses growth capabilities in regards to streaming video, vehicle communications, and onboard vehicle diagnostics. Fielding for the Abrams Integrated Display and Targeting System is scheduled for 2016.

**RECEIVING UNITS**

- I MEF
- II MEF

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Photo Courtesy of Headquarters, U.S. Marine Corps
PROCUREMENT PROFILE

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DEVELOPER/MANUFACTURER

- General Dynamics, Sterling Heights, MI
- Undisclosed, Picatinny, NJ
- Benet Laboratories, Watervliet, NY
- Wegmann USA, Lynchburg, VA

AMPHIBIOUS COMBAT VEHICLE (ACV)

DESCRIPTION

The ACV is a pre-Major Defense Acquisition Program that will provide the primary means of armor protected ground mobility for Marine infantry units. We are applying a phased approach to the program. In the first phase, we are pursuing a wheeled armored personnel carrier as a complementary capability to the Assault Amphibious Vehicle (AAV).

As its name makes clear, the ACV will be amphibious; in the initial increment it will be capable of shore-to-shore and riverine water mobility. The ACV will also be fully interoperable with our surface connectors to conduct the preponderance of its ship-to-shore movements. Optimized for littoral operations, the ACV will possess a balance of water and ground mobility, protection and payload enabling maneuver throughout the varied terrain mixes within the littorals. Additionally, the ACV will possess the capability to provide organic, direct fire support to dismounted infantry. Finally, ACV will protect the force during offensive and defensive operations, providing 360° protection against direct fire, indirect fire, mines, and improvised explosive device threats.

In a longer term effort envisioned as a second phase and conducted in concert with the Navy, our Corps will continue to explore capabilities that better...
enable us to conduct extended range littoral maneuver from ship-to-objective in order to fully replace our legacy AAVs that were first fielded in 1972.

OPERATIONAL VIEW

PROGRAM STATUS
In 2012, our Corps and ASN (RDA) established an ACV Directorate chartered with leading an assessment to determine the feasibility, costs, and risks of developing a survivable, affordable, high water speed ACV. Findings from the ACV Directorate study informed both the requirements and acquisition path for the ACV.

OPERATIONAL IMPACT
The ACV will enhance the Ground Combat Element’s tactical and operational mobility with a balanced level of performance, protection, and payload. This balance enables ACV-borne formations to be effective across the range of operations and provides our infantry units with a modern armored personnel carrier well suited to operations in the littorals.

LIGHT ARMORED VEHICLE (LAV) MODERNIZATION

DESCRIPTION
The Family of LAVs is our Corps’ legacy program which began fielding in 1983. The LAV is an 8x8 wheeled FoV, comprised of a base variant (LAV-25) and six mission role variants (Anti-Tank, C2, Mortar, Recovery, Logistics, and EW), that provide the platform for Light Armored Reconnaissance (LAR) battalions and a mobile electronic support platform for the Radio battalions.

The LAV possesses a potent combination of firepower, high mobility, communications, and protection in an expeditionary platform that consistently met GCE performance expectations.

The LAV’s original service life expectation of FY03 was extended multiple times with a current extension through 2035, because of this, additional improvements are necessary to ensure the LAV is both operationally effective and available to successfully perform its doctrinal missions.

These improvements are designed to correct mobility and obsolescence issues, improve force protection and vehicle survivability, modernize the LAV-AT TOW system, upgrade the power pack, electronics, and suspension system, and provide blast attenuating seats and self-sealing fuel cells.

OPERATIONAL IMPACT
The LAV modification and sustainment programs ensure the LAV has sufficient force protection, survivability, and lethality while also maintaining a high degree of mobility. The capabilities will also provide the LAR and Radio battalions with a sufficiently reliable vehicle that is supportable within the current maintenance structure.

PROGRAM STATUS
LAV-AT Modernization: LAV-AT program replaces the obsolete Emerson 901 turret and M220E3 TOW to restore operational availability. Milestone (MS) B: 2d Qtr FY11, MS C: 2d Qtr FY15, IOC: 4th Qtr FY17, FOC: 4th Qtr FY19.

LAV Mobility & Obsolescence: MS B: 1st Qtr FY14, MS C: 1st Qtr FY17, IOC: 4th Qtr FY18, FOC:
CHAPTER 3: PROGRAMS

4th Qtr FY24.

LAV Survivability: Self-sealing fuel systems for the mission role variants will begin production in 1st Qtr FY14, installation in 3d Qtr FY14; IOC 4th Qtr FY14 and FOC 4th Qtr FY15.

Mine protected seating developmental work to be completed in 2d Qtr FY14 and LAV-25 Fuel System in 2d Qtr FY15.

RECEIVING UNITS
• I MEF
• II MEF
• III MEF

DEVELOPER/MANUFACTURER
Raytheon, McKinney, TX

ENGINEER COMBAT SUPPORT VEHICLES (ABV, AVLB, AND MK-154)

DESCRIPTION
The Assault Breacher Vehicle (ABV) is a single platform that provides deliberate and in-stride breaching capability to the assault force of the MAGTF.

The ABV incorporates a minefield clearing line charge system, full width mine plow, and lane marking system, which is based on the chassis of our M1A1 MBT. The ABV operates as part of a combined arms task force operation to rapidly breach obstacle belts and create lanes to support assault force mobility, and is employed by Combat Engineer Battalions.

The Armored Vehicle Launched Bridge (AVLB) is an armored vehicle that launches and retrieves a 60-foot scissors-type metal bridge. Employed by Combat Engineer Battalions, the AVLB is capable of spanning gaps up to 15 miles and support the crossing of tracked and wheeled vehicles with a military load bearing capacity of up to 85 tons when emplaced.

The MK-154 Mine Clearance Launcher is an electric and hydraulic triple shot minefield clearing line charge system installed in AAVs. Employed by Mobility/Countermobility Platoons of Assault Amphibian Battalions, the MK-154 provides the capability to breach lanes through explosive and non-explosive obstacle belts during an amphibious assault and subsequent operations inland.

OPERATIONAL IMPACT
The ABV and MK-154 mitigates the threatened use of explosive and non-explosive obstacle belts to support the amphibious and ground maneuver of assault elements in the MAGTF area of operations. The AVLB enables the maneuver of armored and mechanized forces through severely restricted terrain in the MAGTF’s areas of operation.

PROGRAM STATUS
The ABV was produced by Anniston Army Depot and completed fielding in 2012. The Stabilized Commander’s Weapons Station program stabilizes the ABV’s .50-caliber machine gun to provide the Vehicle Commander an under armor, shoot-on-the-move capability during breaching operations. Milestone C: 1st Qtr, FY13; IOC: 4th Qtr, FY14; FOC: 4th Qtr, FY16.

The AVLB was produced by General Dynamics Land Systems and was fielded in 1987. A product improvement program will replace hydraulic and electronic components to provide a more reliable, maintainable asset and establish a common configuration across the joint inventory, which will minimize the spares inventory and interoperability complications. IOC: 1st Qtr, FY14; FOC: 4th Qtr, FY15.

The MK-154 was produced by General Motors and was fielded in 1983. The system will initiate a life-cycle management program to address maintenance, training, and parts obsolescence issues. Milestone C: 2d Qtr, FY13; IOC: 2d Qtr, FY15; FOC: 4th Qtr, FY16.

RECEIVING UNITS
• I MEF
DEVELOPER/MANUFACTURER
• Anniston Army Depot, Anniston, AL
• Marine Corps Logistics Command, Albany, GA

HIGH MOBILITY MULTI-PURPOSE WHEELED VEHICLE (HMMWV) EXPANDED CAPACITY VEHICLE (ECV)

DESCRIPTION
The ECV is the fourth-generation (G4) design of the HMMWV and has replaced the aging fleet of baseline A1 variants and some A2 variants. Our Corps’ units originally fielded the HMMWV in the mid-1980s.

Upgrades to the HMMWV ECV include a more powerful and environmentally compliant 6.5L turbo engine, microprocessor controlled engine, electronic start system, increased payload (500 lb), improved corrosion prevention, and access panels to facilitate maintenance.

PROGRAM STATUS
Since February 2010, we have procured a limited number of specialty variant ECVs, as the AAO for the fleet is being reduced. However, with plans to keep the HMMWV fleet in our Corps’ inventory until the year 2030, we have begun to explore concepts to restore payload, reliability, and automotive performance lost due to the increased weight of armor under the HMMWV Sustainment Modification Initiative (HSMI).

An upgraded power train, brakes, suspension, axles, and wheels are among those components and subsystems targeted for improvement. Four test concepts ranging in capability and cost have been designed and built during 2013 for evaluation.

After testing, we will select one SMI concept based upon performance and affordability to go forward with a full and open competition for production. We anticipate fielding the improved HMMWV SMI

High Mobility Multipurpose Wheeled Vehicle (HMMWV)
High-Level Operational Concept Graphic (OV-1)
concept to the Operating Forces beginning in 2016.

**DEVELOPER/MANUFACTURER**
AM General, South Bend, IN

**OPERATIONAL VIEW**

**OPERATIONAL IMPACT**

MAGTFs require a light tactical vehicle for C2, troop transport, light cargo and shelter transport, a towed weapons prime mover, and weapons platform throughout all areas of the battlefield or mission area in order to successfully accomplish their missions. In addition, 71 of our component programs use the HMMWV as their prime mover. Vehicle kits, which are capable of being installed at the intermediate level of maintenance or below are provided to units that require specific vehicle configurations.

**MEDIUM TACTICAL VEHICLE REPLACEMENT (MTVR)**

**DESCRIPTION**

The MTVR program replaced the medium truck fleet (M809/M939) series 5-ton trucks with state-of-the-art commercial automotive technology. The MTVR has: an increased payload of 7.1 tons off-road and 15 tons on-road; a high performance suspension; traction control; central tire inflation system; automatic transmission; and corrosion technology upgrades. MTVR FoV includes: a cargo variant (both standard and extended wheel base configurations); dump truck; wrecker; and tractor.

The tractor variant serves as the prime mover for the MK 970 refueling trailer and the M777 155mm Howitzer. The U.S. Navy also uses MTVR vehicles for Naval Construction Battalion (Seabee) operations. The HIMARS resupply vehicle (and associated trailer) is an MTVR variant that was procured as part of the U.S. Marine Corps HIMARS program.

The MTVR Armor System (MAS) provides complete 360° protection as well as overhead and underbody protection for the crew compartment with the ability to withstand small arms fire, s, and mines.

Upgrades to the MTVR System include: suspension; air conditioning system; removable armored troop carrier (with ballistic glass); machine gun mounts; and the transparent armor gun shield. The height reduction configuration of the MAS accommodates maritime pre-positioned shipping space requirements.

**OPERATIONAL IMPACT**

More than 1,000 MTVRs have seen service in support of OIF, OEF, and HA/DR missions. The MTVR has been heavily used in contingency operations as well as missions in support of humanitarian operations, with its 70 percent off-road mission profile and highly survivable armor package.

**PROCUREMENT PROFILE**

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**DEVELOPER/MANUFACTURER**
Oshkosh Corporation, Oshkosh, WI

**LOGISTICS VEHICLE SYSTEM REPLACEMENT (LVSR)**

**DESCRIPTION**

The LVSR replaces our current heavy-tactical wheeled vehicle, the Logistics Vehicle System. The LVSR cargo variant can effectively transport: bulk liquids; ammunition; standardized containers; other bulk materiel; palletized cargo; and bridging equipment.

The LVSR also has wrecker and tractor variants and is being fielded throughout the MAGTFs. The vehicle’s base design includes factory-installed floor armor and is also designed to accept an add-on armor kit for increased crew protection. The vehicle is also equipped with an independent suspension system for superior off-road mobility in the most severe environments.

The LVSR features an on-road payload capacity of 22.5 tons and an off-road payload capacity of 16.5
CHAPTER 3: PROGRAMS

during OIF and OEF, and established the capability set as a POR. The R2C capability set is employed by Route Reconnaissance and Clearance Platoons of Combat Engineer Battalions to obtain information on critical terrain features, route conditions, enemy obstacles, and to clear threat explosive hazards along routes of march.

The R2C capability set is comprised of the following:

- five Mine Resistant, Ambush Protected (MRAP) vehicles
- two vehicle mounted mine detection systems
- three lightweight mine roller systems
- two lightweight route clearance blades
- two lightweight interrogation arms
- two vehicle transported robots for standoff explosive hazard detection/interrogation
- two automated route reconnaissance kits

OPERATIONAL IMPACT
MAGTFs require a heavy ground logistics distribution system that is highly mobile, efficient, reliable, and flexible to successfully accomplish their mission. This system must be capable of operating over increased distances with increased payloads.

The LVSR will rapidly distribute all classes of supply, while including a self-loading and unloading capability. The LVSR addresses one of our most significant challenges in Afghanistan, that of getting supplies, equipment, and logistics into the remote areas in which Marines routinely operate.

PROGRAM STATUS
LVSR achieved IOC in September 2009. The original indefinite delivery/indefinite quantity contract for the LVSR was awarded in May 2006 to Oshkosh Corporation, Oshkosh, WI. The AAO of the LVSR is 2,000 vehicles.

Full-rate vehicle production began in December 2008 and includes add-on armor “B” kits, in addition to the factory-installed integral “A” kit armor. Add-on armor can be applied in the field by maintenance activities. By the end of FY12, the full AAO of 2000 vehicles was procured consisting of 1489 Cargo variant, 349 Tractor variants, and 162 Wrecker variants.

DEVELOPER/MANUFACTURER
Oshkosh Corporation, Oshkosh, WI

ROUTE RECONNAISSANCE AND CLEARANCE (R2C) FAMILY OF SYSTEMS (FoS)

DESCRIPTION
The R2C FoS provides our Corps with a standoff explosive hazard detection capability, an effective scalable neutralization system to support route clearance requirements, and protection for Marines operating in an explosive hazard environment. We fielded the capability set in response to an urgent universal needs statement from the operating force during OIF and OEF, and established the capability set as a POR. The R2C capability set is employed by Route Reconnaissance and Clearance Platoons of Combat Engineer Battalions to obtain information on critical terrain features, route conditions, enemy obstacles, and to clear threat explosive hazards along routes of march.

The R2C capability set is comprised of the following:

- five Mine Resistant, Ambush Protected (MRAP) vehicles
- two vehicle mounted mine detection systems
- three lightweight mine roller systems
- two lightweight route clearance blades
- two lightweight interrogation arms
- two vehicle transported robots for standoff explosive hazard detection/interrogation
- two automated route reconnaissance kits

OPERATIONAL IMPACT
The R2C FoS capability set mitigates the threat use of IEDs, conventional landmines, and obstacles to support the maneuver of ground elements along routes in the MAGTF’s area of operations.

PROGRAM STATUS
Increment I of the R2C FoS program rebuilds mine detection systems and adds new mine roller systems, route clearance blades, and robots. The R2C FoS program will reach IOC in 4th Qtr FY10, and FOC in the 4th Qtr FY14. Increment II of the R2C FoS program rebuilds MRAP vehicles and incorporates new interrogation arms and route reconnaissance kits. Milestone (MS) C: 2d Qtr FY14; IOC: 3d Qtr FY14; FOC: 4th Qtr FY15.

RECEIVING UNITS
The R2C FoS is currently based at: Camp
OPERATIONAL VIEW

The Route Reconnaissance and Clearance Capability Set Increment III (R2C CAPSET Inc III) helps mitigate the use of explosive obstacles and non-explosive obstacles along routes in a Marine Air-Ground Task Force area of operation. The R2C CAPSET Inc III is rapidly employable and capable of performing route reconnaissance and clearance missions through detecting, neutralizing, marking, and communicating explosive obstacles and non-explosive obstacles in order to ensure the mobility of friendly forces. The R2C CAPSET Inc III architecture is developed from the viewpoint of the Route Clearance Platoon.
Section 3:
Aviation
AVIATION STRATEGY

INTRODUCTION

Across the spectrum of military operations Marine Aviation shapes the battlespace, primarily in direct support of Marines on the ground. The MAGTF’s balanced combined arms team is unequalled in its ability to respond to a broad range of operations spanning from humanitarian assistance to major combat operations.

Today, Marine Aviation’s priority is to transition and transform our aviation force. Marine Corps Aviation will replace legacy aircraft, some of which have been flying since the Vietnam War, with far more capable aircraft. During the next decade, Marine aviation will transition from 13 to 6 type-model-series (T/M/S) manned aircraft. These aircraft and capabilities will provide the MAGTF with tools, weapons, and information necessary to defeat the enemy on the battlefield today and in the future.

Our Corps’ aviation Transition strategy is based on two mutually supportive efforts: (1) sustain the legacy fleet and (2) transition to new aircraft and enabling systems. Our Corps’ aviation is prepared to ensure our continued capability to carry out all six functions of Marine Aviation: (1) assault support, (2) anti-aircraft warfare, (3) offensive air support, (4) EW, (5) control of aircraft and missiles, and (6) aerial reconnaissance. Marine Aviation’s multi-year transition plan to dramatically change its fleet includes the following programs:

- legacy aircraft modernization and sustainment
- Marine Air Command and Control System (MACCS) modernization and sustainment
- F-35B and F-35C JSF
- MV-22B Osprey
- UH-1Y and AH-1Z
- KC-130J and Harvest (Hercules Airborne Weapons Kit) HAWK system
- CH-53K program and heavy lift requirements
- RQ-21 Blackjack unmanned aircraft systems (UAS) and other UAS programs and upgrades
- OSA sustainment and upgrades
- Common Aviation Command and Control System (CAC2S)
- AN/TPS-80 Ground/Air Task Oriented Radar (G/ATOR)
- Composite Tracking Network (CTN)
- P-19A Aircraft Rescue and Fire Fighting (ARFF) Vehicle Replacement
CHAPTER 3: PROGRAMS

F-35 (SHORT TAKE-OFF VERTICAL LANDING (STOVL)) AND C (CARRIER VARIANT) LIGHTNING II JOINT STRIKE FIGHTER (JSF)

DESCRIPTION

The F-35 JSF is the next generation strike weapons system designed to meet an advanced threat, while improving lethality, survivability, and supportability. It will be the cornerstone of a multi-mission joint force, and possesses improved mission flexibility and unprecedented effectiveness to engage and destroy both air and ground threats.

The F-35 is designed to participate in a wide variety of operations from routine, recurring military activities, to Major Theater War and peace keeping operations.

The F-35 was developed using a complete analysis of legacy aircraft shortfalls, emerging threats, and consideration of future operating locations. This approach led to an aircraft design that incorporates advanced stealth characteristics and a powerful sensor suite, capable of fusing on- and off-board passive and active sensors. These capabilities provide superior awareness to the pilot and ensure increased survivability and lethality in all environments.

The F-35 has an autonomous capability to strike a broad range of moving or fixed targets, either day or night and in adverse weather conditions. These targets include air and ground threats, enemy surface units at-sea, and anti-ship or land attack cruise missiles.

The F-35 can complete the entire kill chain without reliance on external sources by using fused information from its onboard systems or from other F-35s. This capability allows shortened engagement times, less exposure to threats, and retains the element of surprise.

Together, these elements allow the pilot to control the tactical environment using proactive tactics. When operating in a less restrictive environment, the F-35 provides sensor data to MAGTF C2 agencies to enable intelligence collection and targeting across the force.

The F-35 brings unprecedented lethality, survivability, and maintainability that was not previously possible in legacy fighter attack aircraft.
These attributes have been designed into the aircraft from the beginning of the process and ensure flexibility to counter even more sophisticated threats as they emerge.

**OPERATIONAL IMPACT**

The F-35 JSF brings strategic agility, operational flexibility, and tactical supremacy to the MAGTF. The F-35B STOVL variant unites fifth generation stealth, precision weapons and multi-spectral sensors with expeditionary responsiveness of a STOVL fighter-attack platform. The F-35B will replace AV-8B, F/A-18A/C/D, and EA-6B aircraft. Having a single aircraft capable of performing all these missions decreases logistical requirements and increases operational effectiveness. As a force multiplier for the MAGTF, the F-35 can operate without degradation within anti-access or highly contested airspace by providing an advanced engagement capability that is not possible with legacy aircraft.

The F-35 fuses information from all of its sensors and displays it to the pilot on large panoramic cockpit displays. This comprehensive and intuitive display provides complete situation awareness to the pilot, showing the location and status of both enemy and friendly forces. The ability for the F-35 to accomplish the entire kill chain independently minimizes reliance on other support aircraft. This reduces logistical requirements, and further decreases strains on MAGTF resources.

**PROCUREMENT PROFILE**

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**DEVELOPER/MANUFACTURER**

Lockheed Martin, Fort Worth, TX

**RECEIVING UNITS**

- I MEF
- II MEF

**OPERATIONAL VIEW**
CHAPTER 3: PROGRAMS

PROGRAM STATUS
Highlights of the F-35B program:
• VMFAT-501 squadron standup: 1 April 2010
• VMFA-121 squadron standup: 16 November 2012
• September 2013: Cumulative to date: 3665 hours, 2713 flights
• August 2013: Second L Class ship trials
• Estimated IOC: July 2015

JOINT STRIKE FIGHTER (JSF) TRANSITION PLAN
DESCRIPTION
Our Corps will employ the F-35B and F-35C to support the six functions of our aviation. This remarkable breadth of employment will allow us to decrease our tactical aviation inventory while increasing aircraft lethality, survivability, and supportability compared to those of legacy aircraft.

On 1 April 2010, the VMFAT-501 “Warlords,” our first JSF STOVL training squadron, stood up as part of the JSF Integrated Training Center in Eglin Air Force Base, FL. We are assigning the VMFAT-501 to the 2d Marine Aircraft Wing for operational control and administrative control, but the “Warlords” will maintain a command training relationship and co-location with the U.S. Air Forces’ 33d Fighter Wing. The “Warlords” will relocate to MCAS Beaufort, South Carolina in June 2014. The VMFA-121 “Green Knights,” our first operational JSF STOVL squadron, stood up on 16 November 2012.

Following IOC in 2015, VMFA-121 will transition to MCAS Iwakuni to replace the permanent F/A-18 squadron and the AV-8B 31st MEU commitment. The Operational Test and Evaluation (OT&E) detachment stands up at Edwards Air Force Base during 2014 and commences Block 2.0 OT&E in 2015. We will acquire 420 JSFs (357 STOVL aircraft and 63 CV aircraft). Once the F-35 enters service, we will begin retirement of AV-8Bs and F/A-18A-Ds.
CHAPTER 3: PROGRAMS

MV-22 OSPREY

DESCRIPTION

The V-22 Osprey tilt-rotor aircraft, the only such operational military aircraft in the world, is an advanced technology STOVL multi-purpose tactical aircraft that is replacing the current fleet of Vietnam-era CH-46E & CH-53D helicopters. The V-22 is a multi-mission aircraft designed for use by our Corps, the U.S. Navy, and the U.S. Air Force.

Our Corps’ variant, the MV-22B, joins JHSV and LCAC as the sea-basing connectors necessary to execute expeditionary maneuver warfare. Specific missions for the MV-22B include expeditionary assault from land or sea, medium-lift assault support, aerial delivery, tactical recovery of aircraft and personnel, air evacuation, and rapid insertion and extraction.

The MV-22B design incorporates sophisticated and mature composite materials technology, “fly-by-wire” flight controls, advanced manufacturing processes, and digital cockpits. The MV-22B’s prop-rotor system, engine, and transmissions are mounted on each wingtip and allow it to operate as a helicopter for takeoff and landing. Once airborne, the nacelles rotate forward 90, transitioning the MV-22B into a high speed, high altitude, and fuel efficient turboprop aircraft.

OPERATIONAL IMPACT

The MV-22B has become the cornerstone of our Corps’ assault support capability, with the speed, endurance, and survivability needed to fight and win on tomorrow’s battlefield. This combat multiplier represents a quantum improvement in strategic mobility and tactical flexibility for expeditionary forces.

The Osprey has a 325 nautical mile combat radius, can cruise at 262 knots, and is capable of carrying 24 combat-equipped Marines or a 12,500 lb external load. the aircraft also has a strategic self-deployment capability due to its 2,100 nautical mile single-aerial refueling range.
PROGRAM STATUS

Our transition from the CH-46E to the MV-22B continues at the approximate rate of 3 Ospreys delivered per month and two squadrons transitioned per year. Production of the MV-22B is based on a block production strategy, which is designed to provide continual life-cycle and capability improvements throughout the lifetime of the platform.

Block A aircraft were designed to serve as non-deployable training aircraft. The last Block A were delivered in 2005. Block B aircraft was the first deployable configuration of the MV-22B Osprey. This block provided improvements in effectiveness and maintainability for operators and maintainers, including improved access to the nacelle for inspection purposes, and substantial reliability and maintenance improvements across the entire platform. The last Block B was delivered in 2011.

Block C aircraft, have been in production since 2010, and incorporate mission enhancements and increased operational capability. Enhancements include weather radar, a forward firing ALE-47 Airborne Countermeasures Dispenser System, improved hover coupled features, an improved environmental conditioning system, and a troop commander SA station. As of Sep 2013, 26 Block C aircraft have been delivered to the fleet, and 208 of the total PoR 360 aircraft have been delivered.

RECEIVING UNITS

- I MEF
- II MEF
- III MEF

PROCUREMENT PROFILE

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DEVELOPER/MANUFACTURER

Boeing Company, Philadelphia, PA

OPERATIONAL VIEW(S)
H-1 UPGRADES
(UH-1Y VENOM/AH-1Z VIPER)

DESCRIPTION
The H-1 program replaces the UH-1N and AH-1W aircraft with the AH-1Z “Viper” and the UH-1Y “Venom” the next generation of U.S. Marine Corps Attack and Utility aircraft. The Viper and Venom extend the proven Cobra and Huey series of aircraft with fully integrated, high performance, state-of-the-art platforms. Speed, range, and payload have been increased significantly, while decreasing supportability demands, training timelines, and total ownership cost.

The advanced cockpit is common to both aircraft, reduces operator workload, improves SA, and provides growth potential for future weapons and joint digital interoperability enhancements. The cockpit systems assimilate onboard planning, communications, digital fire control, all weather navigation, day/night targeting, and weapons systems in mirror-imaged crew stations.

OPERATIONAL IMPACT
The components of the UH-1Y Venom and the AH-1Z Viper are 85 percent identical which reduces the logistical footprint for the MAGTF by allowing a single supply chain to support the preponderance of maintenance requirements. Significant operational demands, the retirement of the UH-1N, aircraft attrition, and the current shortfall of attack and utility helicopters has forged our “build new” strategy for the UH-1Y and AH-1Z fleet. The success of this effort rapidly reduces the current deficit of our Corps’ Attack helicopters. Initial conversion to the UH-1Y is underway within every AC Marine Aircraft Group and begins in the RC in 2014. HMLA squadrons will continue to grow their UH-1Y inventory until complete in approximately 2016.

The AH-1Z conversion is complete in one squadron and will continue at a rate of approximately one squadron per year until 2021. The UH-1Y executed its first deployment with the 13th MEU in 2009 and has been conducting combat operations in support of OEF ever since.
assets will be fully networked and collaborative to provide the MAGTF with the ability to control the EMS.

MAGTF EW is far from a compromise plan for the retirement of the EA-6B, and will unite air, ground, and space-based technologies to ensure collaborative, efficient, and effective control of the EMS.

Future growth of MAGTF EW will allow for the progressive inclusion of technologies and capabilities from other services and commercial vendors. At present, the following capabilities comprise the MAGTF EW portfolio in development:

- Intrepid Tiger II (IT-2): An EW pod for communications-based targets, expandable to radar–based targets, currently deployed to CENTCOM and with MEUs. IT-2 versions: \( v(1) \) – Fixed wing, \( v(2) \) - UAS, \( v(3) \) – Rotary wing.

- Electronic Warfare Service Architecture (EWSA): An extensible data exchange and hardware protocol intended to connect EW/SIGINT airborne nodes to ground operators, Cyber/Electronic Warfare Coordination Cells (C/EWCCs), and other air EW nodes. EWSA will provide “on-demand EW fires” in operational conditions under C/EWCC control, and will unite Air EW, Ground EW, and SIGINT via an adaptive network with multiple waveforms. Additionally, EWSA will also provide basic digital interoperability between air platforms.

OPERATIONAL IMPACT

Our Corps’ operational dependence upon the EMS is increasing in amount, type, density, and complexity. Active pursuit of the MAGTF EW strategy provides an opportunity to replace the low-density, platform-centric EA-6B Prowler capability with a scalable, organic, adaptable, and cost-effective system-of-systems for EMS control. This system will be equally applicable across the ROMO. Once the MAGTF EW has been fully realized, it will constitute an improvement over current capabilities.

PROGRAM STATUS

In September 2012, the Marine Requirements Oversight Council approved the MAGTF EW
KC-130J HERCULES

DESCRIPTION
The KC-130J is a versatile four-engine tactical air-to-air refueling and assault support aircraft, that provides the only organic long-range, fixed wing assault support capability to our Corps. The KC-130J features increased efficiency over legacy KC-130 variants. The Rolls Royce AE 2100D3 propulsion system with Dowty R391 advanced technology six-bladed propellers provide 30 percent more thrust, 24 percent faster time to climb, and 20 percent better fuel efficiency.

A state-of-the-art flight station and integrated advanced defensive system enables fewer aircrew to perform the same missions. Other improvements include an advanced cargo ramp and door capable of operating at airspeeds up to 250 knots, and an improved air-to-air refueling system, which enables increased fuel transfer rates without requiring the installation of the fuselage fuel tank. All AC legacy KC-130 aircraft have been replaced with KC-130Js. Once RC squadrons have transitioned to the KC-130J, we will have one type, model, and series of this versatile aircraft.

OPERATIONAL IMPACT
The KC-130J provides:
- tactical air-to-air refueling for fixed wing, rotary wing, and tilt-rotor aircraft;
- ground refueling of aircraft or tactical vehicles;
- assault air transport of air-landed or air-delivered (parachute) personnel and equipment;
- airborne C2 augmentation; pathfinder support;
- battlefield illumination;
- tactical aero-medical evacuation;
- tactical recovery of aircraft and personnel enablement.

Information Systems Initial Capabilities Document (IS ICD). In April 2013, the JS validated MAGTF EW as a Joint Interest Item. IT-2 v(1) Block 0 is currently deployed in early operational capability status on AV-8B Harriers. IT-2 Block 1, which incorporates EW support/surveillance capabilities, will deploy in FY14. Block X, which will add counter-radar capabilities, is currently planned for RDT&E in FY16.

EWSA functionality supports the operational employment of the (IT-2) pods in CENTCOM and aboard MEUs, and has been used extensively during WTI course tactical demonstrations hosted by MAWTS-1.

EWSA is being shared with U.S. Army EW, and interested commercial vendors, to pursue new capabilities from a normalized frame of reference and encourage its adoption by other agencies.

DEVELOPER/MANUFACTURER
Various NAVAIR, Naval Research Laboratory, and prospective commercial vendors.
In response to an Urgent Universal Need Statement, we have acquired a bolt-on/bolt-off Multi-Sensor Imagery Reconnaissance (MIR)/Weapon Mission Kit for KC-130J aircraft. This kit, known as Harvest HAWK, rapidly reconfigures the KC-130J aircraft into a platform capable of performing persistent MIR, targeting and delivery of precision fires using Hellfire as well as Griffin and Viper Strike stand-off precision guided munitions. The KC-130J brings increased capability and mission flexibility to combat planning and operations.

PROGRAM STATUS
Our Corps’ KC-130J requirement (AC and RC) is 79 aircraft. The KC-130J is currently in production with 46 aircraft delivered. The 47th KC-130J is on contract for delivery in March 2014, and will be the first KC-130J for the RC. FOC was achieved for the AC on 14 November 2011. IOC for the RC is planned for 1 August 2015.

RECEIVING UNITS
• I MEF
• II MEF
• III MEF

PROCUREMENT PROFILE
FY14 FY15
2 1

DEVELOPER/MANUFACTURER
Lockheed Martin Aeronautics Company, Marietta, GA

OPERATIONAL VIEW

OPERATIONAL SUPPORT AIRCRAFT (OSA)

DESCRIPTION
OSA provide time-sensitive air transport of high-priority passengers and cargo between and within theaters of war.

Their mission is to execute short-notice, time-critical logistics missions, scalable to complement the economic and efficient use of tactical platforms. This frees up front-line tactical squadrons for higher-priority missions and tasks, thereby serving as a combat multiplier for the MAGTF, the Joint Force, and regional CCDRs.

OSA aircraft provide airlift in support of national defense, HA/DR, theater SC, and engagement with allies of the United States.

Based on proven civil designs, these 27 commercial-variant aircraft range in size from an eight-passenger light twin-engine turboprop to 90-passenger jets.

Our Corps operates four different types of aircraft to meet its lift requirements:
• C-20G Gulfstream IV
• C-9B Skytrain
• UC-12F/M/W King Air
• UC-35C/D Citation 560 Ultra and Encore

Our UC-35s and UC-12Ws are forward deployed in Southwest Asia and the Mediterranean, providing invaluable daily support to the component commander and relief to MAGTF tactical aircraft by moving personnel and cargo throughout the theater. OSA aircraft have sufficient tactical radios to ensure integration with the MAGTF and joint operations.

UC-12W and UC-35D aircraft have been equipped with aircraft survivability equipment (ASE) to detect and defeat enemy surface-to-air infrared missiles. Marine OSA supports the MAGTF directly at combined arms exercises such as ITX.

The incorporation of OSA into MAGTF exercises relieves participating tactical squadrons from much of the exercise-associated administrative airlift requirements. This in turn enables tactical squadrons to focus time and resources on combat-related flight training. The acquisition of low-risk, COTS aircraft is a cost-effective way to provide the MAGTF with relevant and sustainable operational support.
OSA aircraft provide swift, effective, short-notice, time-critical support, with aircraft flown by Marine aviators and fully integrated into MAGTF operations.

PROGRAM STATUS
We have a Service-endorsed OSA Master Plan, developed to provide the MAGTF with the right mix of the right aircraft to ensure time-sensitive movement of personnel and cargo. The plan articulates deliberate OSA aircraft recapitalization to modernize the Fleet so that it meets current and future needs, and prescribes a minimum quantity of 27 aircraft of four basic aircraft types:

1. The C-9B is out of production, and is now 35 years old. A suitable replacement will provide an increase in capabilities, a reduction in operating costs, and must have the ability to transport larger payloads across longer distances.
2. The C-20G is a Gulfstream G-IV aircraft, manufactured in Savannah, GA. Efforts to install ASE are underway.
3. The UC-35C/D is manufactured by Cessna Aircraft in Wichita, KS.
4. The UC-12F/M, manufactured by Beechcraft Corporation, in Wichita, KS, averages 27 years of age. The UC-12W (a King Air 350ER), will replace the UC-12F/M. In FY10, we received six UC-12Ws. Integrated Developmental Test was completed in August 2010, IOC was achieved IOC in 2010, and the procurement objective is 12 aircraft.

RECEIVING UNITS
- 1 MEF
- 2 MEF

DEVELOPER/MANUFACTURER
Beechcraft Corporation, Wichita, KS

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CH-53K HEAVY LIFT HELICOPTER

DESCRIPTION
The CH-53K is critical to sea-based expeditionary maneuver warfare for our Corps. As MAGTF equipment gets heavier, demand for vertical heavy lift assets increase. Heavier equipment, such as up-armored HMMWVs, the future JLTV, and the LAV eliminate medium-lift assets as lift platforms and increase demand for the heavy lift CH-53K.

The CH-53K provides our Corps with the ability to transport 36,000 lb of external cargo and is specifically designed to lift 27,000 lb of cargo up to 110 nautical miles in support of future warfighting concepts.

The CH-53K generates nearly three times the external lift capability of the CH-53E under the same environmental conditions, while fitting within the same shipboard footprint. Performance improvements enable vertical insertion of dual-slung up-armored HMMWVs, the JLTV, LAV, or three individually tailored resupply loads, which are delivered to three different operating bases using the independent triple-hook external load system.

The CH-53K provides unparalleled lift and range capability under high-temperature and high altitude austere conditions, similar to those found in Afghanistan, thereby greatly expanding the commander’s operational reach. It is the only fully “marinized” helicopter that can lift 100 percent of air transportable equipment from amphibious shipping to inland objectives.

The CH-53K, has more lift capacity than present day heavy lift assets, and is the aircraft of choice to minimize the MAGTF footprint while maximizing operational efficiency.

Major system improvements include:
- more powerful engines
- increased lift capability
- enhanced drive train
- advanced composite rotor blades
• modernized digital cockpit
• improved external and internal cargo handling systems
• increased survivability and force-protection measures

The CH-53K is designed to greatly improve heavy lift performance and survivability while reducing shipboard logistical requirements, operating costs, and direct maintenance man hours-per-flight hour compared to the CH-53E.

PROGRAM STATUS
The CH-53K’s Ground Test Vehicle (GTV) had the tail rotor pylon installed on 25 September 2013 and is ready to enter the ground test phase. The GTV will execute its “Bare Head Light Off” on 6 December 2013, paving the way for the Engineering Development Models (EDM) to safely transition to initial test flight operations in 2014. All four EDM’s are currently in assembly at Sikorsky’s Florida Assembly and Flight Operations (FAFO) facility with estimated completion dates of 6 December 2013, 17 January 2014, 4 June 2014, and 18 August 2014. Milestone C is scheduled for FY16 with IOC scheduled for 1st Qtr FY19. General Electric’s GE38 is a new engine, specifically developed to power the CH-53K, and has achieved over 3,100 successful test hours. The GE38 recently completed 38 one-hour sand cycles, a two-hour sand ingestion test, and the second 1,000 hour durability test. The GE38 (required to produce 7,500 shaft-horse-power) has sustained 7,760 shaft-horse-power and peaked at a robust 8,300 shaft-horse-power.

The maintenance detachments will function as work center supervisors, training other Marines on the CH-53K, and assisting in logistics support development. These Marines will also assist in the assembly of all four EDMs and support subsequent tests. The Integrated Test Team will work hand-in-hand with their Sikorsky counterparts in test plan development and implementation.

OPERATIONAL VIEW

OPERATIONAL IMPACT
The CH-53K maintainability and reliability
enhancements decrease recurring operating costs significantly, while improving aircraft efficiency and operational effectiveness compared to the CH-53E.

Survivability and force protection enhancements significantly increase protection for aircrew and passengers. The CH-53K will transport three independent external loads tailored to individual unit requirements and provide the critical logistics air bridge to facilitate sea-based and distributed operations. The CH-53K is the only helicopter capable of carrying 463L Air Force pallets internally, which greatly shortens logistics delivery timelines from fixed wing transport aircraft.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF

PROCUREMENT PROFILE

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DEVELOPER(S)/MANUFACTURER(S)
Multiple manufacturers in Stratford, Ct

UNMANNED AIRCRAFT SYSTEMS (UAS)

DESCRIPTION
We have employed UAS since 1986 and embrace their expanding potential well beyond ISR. Since 2001, the demand for dedicated aerial reconnaissance aircraft has grown exponentially, and UASs have played a critical part in supporting the aerial reconnaissance requirement. We have refined our UAS requirements and Concept of Operations (CONOPS) and have begun the procurement and fielding of improved systems at every level of the MAGTF.

Our UAS CONOPS divides UAS requirements into three levels that coincide with the various echelons of command in the MAGTF. The larger and more capable systems support higher levels of command, whereas the smaller but more numerous systems directly support lower tactical units.

U.S. Marine Corps UAS requirements include the following:
- Marine Corps Tactical UAS (MCTUAS): RQ-7B Shadow
- Small Tactical UAS (STUAS): RQ-21A Blackjack
- Small UAS (SUAS): RQ-11B Raven

OPERATIONAL IMPACT: RQ-7B SHADOW
The RQ-7B Shadow UAS is our largest system, and supports the MEF and MEB. The first system was deployed with VMU-1 to support OIF in September 2007. Employing MCTUAS electro-optical and infrared (EO/IR) sensors and laser designators, the VMU squadron supports our Corps’ GCE with route reconnaissance, fires integration and force protection prior to, during, and throughout mission operations. Future RQ-7B initiatives include streamlining the logistical footprint and exploring upgraded payload capabilities.

PROGRAM STATUS: RQ-7B SHADOW
The RQ-7B Shadow program upgrades include Tactical Common Data Link (TCDL), improved onboard data processors, and upgraded engines to enhance air vehicle reliability.

The RQ-7B provides multiple capabilities to the MAGTF, and is procured as a near-term solution to shortfalls in the older RQ-2B program. Upgrades to the RQ-7B are planned through FY18.

These upgrades will support the transition to a larger (Group-4) UAS that will provide the MAGTF with persistent ISR, strike, and EW. This capability will be onboard a faster UAS platform with an improved endurance and payload capacity, while maintaining an expeditionary footprint.
the vulnerability of ground logistics supporting Marines stationed at remote combat outposts. Two Lockheed Martin/Kaman KMAX Cargo UASs deployed to OEF in 2011 in support of a Military User Assessment (MUA) with the VMU as a government-owned/contractor-operated cargo UAS service.

The MUA will help to form future CONOPS and a formal program of record that will provide the MAGTF with a UAS system capable of cycling five tons of supplies between a support base and remote outpost within a 24-hour period.

Electronic Attack (EA) and UAS: We will incorporate an EW capability into current and future UAS platforms, partly to address the eventual retirement of EA-6B Prowlers.

This UAS EW capability will comprise a portion of the system-of-systems approach by which electronic warfare capabilities are distributed across manned and unmanned aerial systems. This system ensures collaborative, efficient, and effective control of the EMS.

**PROCUREMENT PROFILE**

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**DEVELOPER(S)/MANUFACTURER(S)**

- RQ-7B Shadow: AAI, Hunt Valley, MD
- RQ-21A Blackjack: Insitu, Bingen, WA
- RQ-11B Raven: AeroVironment, Monrovia, CA

**EXPEDITIONARY SUSTAINMENT LIGHTING SYSTEM**

**DESCRIPTION**

The Expeditionary Airfield (EAF) Sustainment Lighting System (SLS) replaces the EAF legacy hard-wire airfield lighting system and the Minimum Operating Strip Lighting System (MOSLS). The current legacy hard-wire lighting system is based on obsolete, 1960’s-era, incandescent technology, has limited, rapidly diminishing supply support, and does not meet Category I Instrument Flight Rules (CAT I IFR) operating requirements.
This has created an operational gap between Air Traffic Control’s (ATC) existing CAT I IFR capability, and the EAF capability to provide required equivalent lighting. The MOSLS is a trailer-based system originally intended to provide a rapidly deployable airfield lighting capability for operations of 24-72 hours in length. Historically, these systems have been employed for periods exceeding six months, which severely taxes battery and generator components. The end-state is to provide the MAGTF with a single, scalable sustainment lighting system to meet the ACE’s operational requirements.

**PROGRAM STATUS**

The draft CDD is complete and submitted for signature. Industry responses to the Request for Proposal (RFP) were received in September 2013. Source selection is ongoing. In FY19, the SLS will achieve IOC which is when 1st MAW has received six Vertical Take-Off and Landing (VTOL) Modules and one Runway Module, and operators have received initial training, training products, manuals, and necessary support equipment. The SLS will achieve FOC in FY20. The requirements for FOC are that: all systems be fielded to scheduled units; all operators have received initial training, training products, and manuals; necessary training, training products, and manuals; necessary support equipment; and sufficient repair parts to support operations. The SLS will achieve FOC in FY20.

**OPERATIONAL IMPACT**

The SLS will provide the capability to launch and recover aircraft in weather conditions ranging from Visual Flight Rules (1000 foot ceiling, 3-mile visibility), down to Category I Precision Instrumented Flight Rules (200 foot ceiling, ½-mile visibility). The resulting systems will be portable, sustainable, and maintainable in an expeditionary environment and able to withstand the heat signature of all of our aircraft. Systems will be environmentally friendly by making use of current technological advancements in efficient power generation and management (solar, improved batteries, etc.). Appropriate components will be compatible with AN/AVS-9 (Class B and C) Night Vision Devices (NVD).

**OPERATIONAL VIEW**
AN/TPS-80 GROUND/AIR TASK ORIENTED RADAR (G/ATOR)

DESCRIPTION

The AN/TPS-80 G/ATOR is a highly expeditionary, three-dimensional, short to medium range multi-role radar designed to detect low-observable, low-radar cross section targets such as rockets, artillery, mortars, cruise missiles, and unmanned aircraft systems. The G/ATOR is being developed and fielded in three blocks, and will be employed by the MAGTF across the ROMOs. These blocks will cover both ground and aviation missions and will replace three in-service legacy radars and the functionality of two retired systems.

Air Defense/Surveillance Radar (AD/SR) G/ATOR Block 1 (GB1) will provide capabilities in the Short Range Air Defense (SHORAD) and Air Surveillance mission areas. GWLR G/ATOR Block 2 (GB2) will address Counterfire Targeting missions.

G/ATOR Block 3 (GB3) is a series of capabilities that will provide technical enhancements of the air missions. The Expeditionary Airport Surveillance Radar (EASR) G/ATOR Block 4 (GB4) will address ATC missions. GB3 and GB4 capabilities will be defined as part of subsequent G/ATOR acquisition planning, and are being deferred at this time.

G/ATOR consists of three major subsystems: the radar equipment group (REG), the communications equipment group (CEG), and the power equipment group (PEG). The REG is an integrated radar and trailer combination towed behind a medium-tactical vehicle replacement (MTVR). The CEG is a palletized communications and radar control systems transported by the armored M1151A1 HMMWV.

The PEG is a pallet assembly containing a tactical generator, cables, and ancillary equipment transported on the bed of the MTVR. The REG, CEG, and PEG without prime movers are considered mission-essential equipment and are rapidly deployable via heavy lift helicopters, tilt-rotor aircraft, KC-130s, or ground vehicles during the initial stages of operations. This system can augment sea-based air defense sensors and C2 capabilities. G/ATOR will provide naval and joint forces with an expeditionary radar and cruise missile detection capability that extends landward battlespace coverage. When fully fielded, the diverse capabilities of G/ATOR and the many warfighting functions it supports will make it a highly valued asset to the MAGTF.

OPERATIONAL IMPACT

G/ATOR’s expeditionary, multi-role capabilities represent the next generation of ground radar technology. This radar will provide crucial enhancements to warfighting capabilities for our Corps and joint force commanders, as it possesses greater range, accuracy, and detection capabilities against current and emerging threats. The G/ATOR will also provide increased mobility, reliability, and improved SA with the ability to act as the landward extension of sea-based sensors to enable strikes against inland targets.

PROGRAM STATUS

The AN/TPS-80 G/ATOR was designated an ACAT IC by the Under Secretary of Defense for Acquisition, Technology and Logistics in October 2011 with the DON as the lead acquisition agency for G/ATOR. G/ATOR is currently in the Production and Deployment phase of the acquisition life-cycle with a planned FY14 Milestone C. The AAO for the G/ATOR is 45 units.

RECEIVING UNITS

- I MEF
- II MEF
- III MEF

PROCUREMENT PROFILE

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DEVELOPER/MANUFACTURER

Northrop Grumman, Linthicum, MD
LEGACY AIRCRAFT

We have several significant aviation modernization programs underway to restore and enhance the capabilities of existing aircraft and systems. These modernization efforts are vital to our near to midterm combat capabilities.

F/A-18 HORNET

The F/A-18 will continue to see tactical enhancements and service life management, as it will remain active for the next 16 years. The F/A-18 A-D aircraft will require service life extensions and upgrades to bridge the gap to the complete fleet of fifth-generation jets, the F-35 JSFs. In 2013, the legacy Hornet was limited to 8,000 flight hours. Scheduled high flight hour inspections will increase the life span by 1,000 hours, while further inspections and maintenance through a SLEP will allow the legacy Hornet to achieve 10,000 flight hours.

Through the Hornet Integrated Master Plan, individual aircraft will be monitored and placed into scheduled depot level maintenance in order to allow fleet squadrons to maintain their required aircraft on the flight line throughout the year. Although wing-root life expectancy, landings, catapults, and traps are all concerns, increasing aircraft flight hours is now the most critical aspect of ensuring specific F/A-18 A-D aircraft remain operational to scheduled sundown in FY30.

Legacy Hornets remain relevant for future engagements. In order to ensure responsive Marine aviation strike-fighter capability, the baseline Hornet needs to be equivalent to the Lot XXI F/A-18.
During the H6.0 Operational Test, Harrier flight tests validated the AIM-120 A/B Advanced Medium Range Air to Air Missile (AMRAAM) in order to expand the envelope with the 21X radar tape, and permanently added to the inventory of air-to-air weapons. AMRAAM allows the AV-8B to engage enemy air threats at a much greater range than the AIM-9M Sidewinder missile and provides a potent deterrent.

The upgrades to the LITENING pod continue to improve the AV-8B’s lethality and survivability, and include the G4 forward-looking infrared (FLIR); dual field-of-view television seeker; and infrared marker, which provides enhanced target recognition, identification, and precision targeting capability.

In addition to the DITER, the U.S. Marine Corps upgraded the AV-8B to include the APG-65 21X radar tape and received a fully integrated ALE-47 countermeasures system. The follow on OFP, H6.1, implements a Future Airborne Capability Environment (FACE) application to the mission systems computer processor. This provides a common operating environment that supports less expensive integration of common applications. H6.1 will also introduce: JDAM in Weapon Launch Acceptability Region (IWL); a self-lase capability for the AGM-65E Laser Maverick air-to-ground missile; an integrated 4th generation LITENING targeting pod and LITENING Common OFP; and a Joint Mission Planning System update.

The addition of the MV-22 Osprey to the ACE and the limited defense capability of the amphibious task force cemented the requirement for a beyond-visual-range missile for the AV-8B.

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Plug and Play II pods also have a digital video recorder to replace the obsolete 8 mm tape recorder. Our Corps continues to develop new radios and waveforms within the pod that will pave the way for an advanced airborne data link, allowing the pod to act as a digital node in a larger network and to transmit stored images and streaming video over greater distances.

**EA-6B PROWLER**

EA-6B Prowlers remain an essential, combat-proven element of the MAGTF and joint force. The Prowlers’ primary mission is EW, which includes electronic attack (EA), electronic support (ES), and electronic protection (EP). Marine Tactical Electronic Warfare Squadrons (VMAQs) have completed the transition to the Improved Capabilities III (ICAP-III) weapon system.
The core of the ICAP-III is the ALQ-218 digital receiver system, the same system flown on the U.S. Navy’s EA-18G Growlers. This is the first significant receiver upgrade to the Prowler since its fleet introduction in 1971, and makes advanced signal targeting possible. The new receivers and the additional computing capacity in ICAP-III enable improved aircrew SA, more precise and effective jamming, increased readiness and availability, and a reduction in life-cycle costs. We received our first ICAP-III in April 2010 and completed the transition to an all ICAP-III force in 2012.

We will execute a phased decommissioning of our four VMAQs between FY16 and FY19. VMAQ-1, which formally re-designated as VMAQT-1 in June 2013, has assumed EA-6B Fleet Replacement Squadron (FRS) responsibilities. VMAQT-1 will function as the EA-6B FRS until it decommissions at the end of FY16. The remaining squadrons will decommission at a rate of one per year until the Marine The EA-6B fleet is fully retired by the end of FY19: VMAQ-4 at the end of FY17, VMAQ-3 at the end of FY18, and VMAQ-2 at the end of FY19. No single platform will replace the EA-6B. Rather, EW capabilities for the MAGTF will be provided from numerous airborne and ground-based systems. The vision of MAGTF EW is a composite of manned and unmanned surface, air, and space-based assets, which are fully networking and collaborating to provide the MAGTF with the ability to control the EM spectrum.

The EA-6B ICAP-III is still the cornerstone of our EW, but is rapidly being augmented by capabilities such as IT-2 on fixed wing, rotary wing, and unmanned aircraft. The unique capabilities of the JSF and ground-based systems resident in the Radio Battalions are vital contributors to the MAGTF EW approach.

AH-1W SUPER COBRA

The AH-1W “Super Cobra” is a combat-proven force multiplier for the MAGTF. The Super Cobra provides the following in support of MAGTF operations:

- CAS
- Strike Coordination and Reconnaissance
- Armed Reconnaissance
- Escort
- Forward Air Controller Airborne
- Air Interdiction services

Our Corps has been flying the AH-1W since 1986, with the last AH-1W delivery occurring in 1998. The AH-1W will be replaced by the AH-1Z as part of the H-1 Upgrades Program combined with the UH-1Y.

Although the AH-1Z achieved IOC in 2011, the AH-1W will remain in service until 2021.

The AH-1W employs the Night Targeting System (Upgrade) and an airborne fire control system used to designate targets for Precision Guided Munitions (both Hellfire and laser guided 2.75 in rockets). In addition, the Super Cobra has a 20 mm cannon that can be fixed forward or slaved to the aircraft sensors and helmet, and AIM-9 Sidewinder missiles for air to air engagements.

To maintain future relevance and battlefield performance, the Super Cobra has implemented several mid-life improvements including the Helmet Display and Tracking System, Tactical Video Data Link, and a Moving Map.

AH-1Ws are fielded in Marine Light Attack Helicopter Squadrons (HMLA) alongside the UH-1Y, and currently deploy as full squadrons and/or MEU detachments.
**CHAPTER 3: PROGRAMS**

**P-19 AIRCRAFT RESCUE AND FIRE FIGHTING (ARFF) VEHICLE REPLACEMENT**

**DESCRIPTION**

The P-19 ARFF Vehicle Replacement is intended to replace the A/S32 P-19A Aircraft Crash and Structure Fire Fighting Truck, known as the P-19A. The P-19A was introduced into service in 1984, with an intended service life of 12 years but has been in service in excess of 28 years.

The legacy P-19A cannot be economically upgraded to meet the standards mandated in the 2012 National Fire Protection Association - 414. A variety of crew safety-related upgrades are predominantly absent on the P-19A including three-point crew restraints, anti-lock braking, and roll-over warnings.

The primary mission of the P-19R is fighting aircraft fires and crew rescue. The secondary mission of the vehicle is to fight other types of fires, such as brush and structural fires.

The P-19R ARFF vehicle will meet both the 2012 NFPA-414 standards and the expeditionary firefighting and aircraft rescue requirements of our Corps.

This program will replace P-19A’s at both Operational Force (OPFOR) units and Garrison Mobile Equipment (GME) Air Facilities located at the Bases and Stations.

The P-19R will have functional capabilities to minimize the consequences of fire and emergency incidents including: fire suppression and extinguishment on aircraft and structures, and crew extrication and rescue.

The P-19R’s capabilities also include the ability to seat a four person crew and meet U.S. Marine Corps mobility and transportability requirements at bases, stations, and forward operation bases.

To successfully accomplish each rescue mission, the P-19R is equipped with the following: fire suppression compounds and extinguishing agents; handheld extinguishers; and specialized rescue tools to extinguish aircraft fires, protect rescue personnel, cool explosive ordnance, extract aircrews, and successfully accomplish each rescue mission.
OPERATIONAL IMPACT

The P-19R can be transported to the area of operations via strategic airlift (C-17 (Threshold) and C-5 (Objective) aircraft) or surface platforms. The legacy P-19A fleet is undergoing critical readiness issues stemming from reliability and electrical failures due to the age of the vehicles. The current P-19A is a maintenance challenge to station and wing mechanics, resulting in less than 75 percent material readiness levels.

PROGRAM STATUS

The P-19R CDD has been signed by the DC, CD&I, and the program should receive its Milestone C decision in the 2d Qtr FY15.

A Firm Fixed Price (FFP) contract was awarded to manufacture the P-19R. The P-19R IOC is planned for June 2017 and is achieved when one MWSS has received a complete issue of P-19Rs; the assigned mechanics and crews have received initial training at the operator/crew, field, and sustainment levels; and sufficient repair parts are in place to support operations. We are pursuing P-19R FOC by December 2018 to meet the AAO of 164 vehicles.

DEVELOPER/MANUFACTURER

Oshkosh Corporation, Oshkosh, WI

MARINE AVIATION LOGISTICS

DESCRIPTION

Marine Aviation is reshaping our Corps’ aviation logistics element to enable more timely, accurate, and relevant combat support for future conflicts, while meeting today’s readiness needs. Marine aviation logistics provides organizational and intermediate levels of aviation maintenance, supply, ordnance, and avionics in support of the ACE as a key component of the MAGTF.

The Naval Aviation Enterprise’s (NAE) continuous process improvement strategy – AIRSpeed – is a key enabler to improving the efficiency and effectiveness of the time-tested Marine Aviation Logistics Support Program (MALSP) and the foundation for improving current readiness (CR).

Current Readiness (CR): Our aviation commanders and leaders, in concert with the NAE, are responsible for aligning and managing the key processes supporting the manning, equipping, and training to readiness levels that are necessary to generate core competent units for warfighting missions.

The process management decisions implemented by the T/M/S team lead through CR, with detailed analysis, support attainment and sustainment of near and long-term Marine aviation readiness goals and institute best practices that provide effective training, qualified personnel, and efficient maintenance. The CR process links all decision-makers horizontally for problem solving.

MALSP II: The modernization program for the legacy MALSP developed in the late 1980s. MALSP II will enable the transformation of expeditionary logistics by leveraging modern IT and global transportation. MALSP II will support the full ROMO through the tailoring of deployable support packages for specific combat operations. MALSP II will consist of two parallel lines of effort (sub-programs): Marine Aviation Logistics – Enterprise Information Technology (MAL-EIT) and Contingency Support Package (CSP) Redesign.

PROGRAM STATUS

NAVAIR established MAL-EIT as a formal AAP in May 2013. The Expeditionary Pack-up Kit (EPUK), the first of four IT capabilities within MAL-EIT, will begin delivery to the fleet in the 1st Qtr FY14. All Marine Aviation Logistics Squadrons (MALS) should receive EPUK by the end of FY15.
Section 4:
Fire Support
Introduction

Fire support systems shape the battlespace with lethal, non-lethal, kinetic and non-kinetic effects throughout the ROMO. The diversity of fires available to the MAGTF affect the enemy not only physically, but also morally and mentally. Throughout history, our Corps’ air-ground combined arms teams proved unmatched in answering the Nation’s call to arms across the spectrum of operations from crisis response to major combat operations. Today, we endeavor to sustain our Corps’ advantages that made that possible – in both the technological and human dimensions. Our challenge is to remain engaged operationally while sustaining the force and executing the transition strategy for the future. We look beyond the horizon to incorporate force structure changes to balance tactical and operational fire support capability, and augment that force structure capability with equipment that enables our Marines. Our Corps’ transition strategy can be separated into two challenging efforts: to sustain the force and current fire support systems and to modernize those fire support systems.
CHAPTER 3: PROGRAMS

RECEIVING UNITS

- I MEF
- II MEF
- III MEF

DEVELOPER/MANUFACTURER

General Dynamics, St. Petersburg, FL

TARGET HAND-OFF SYSTEM (THS)

DESCRIPTION

The THS is a modular joint fires and combined arms man-portable equipment suite that provides our Corps with the capability to quickly and accurately acquire targets in day, night, and near all-weather visibility conditions. It allows Marines to control Close Air Support as well as artillery and naval fire support missions on a single system using digital communications.

OPERATIONAL IMPACT

THS enables Marines to conduct target acquisition and target hand-off to fire support agencies using existing and planned communications equipment to support maneuver elements of the MAGTF. Marines are able to accurately determine and designate a target’s location and then digitally transmit (hand-off) target data to supporting arms elements. The THS employs a laser designator for precision-guidance munitions and laser spot trackers, and generates accurate coordinates for GPS-guided weapons, including Excalibur rounds and JDAM.

The primary operators are forward air controllers (FACs), Joint Terminal Attack Controllers (JTACs), forward observers (FOs), and Joint Fires Observers (JFOs). These Marines reside in the fire support teams of infantry battalions, firepower control teams of the Air and Naval Gunfire Liaison Companies, teams within MARFORSOC, and supporting training commands such as the artillery regiments, the Field Artillery School at Fort Sill, OK, and the Expeditionary Warfare Training Groups Atlantic and Pacific.

THS is interoperable with several systems, including AFATDS, Naval Fire Control System, Joint Tactical Common Operational Picture Workstation Gateway, Common LRF, the PRC-117 Tactical Combat Net Radio, and the PRC-152 Tactical Handheld Radio. Tactical Air Control Parties often employ THS in conjunction with ISR assets.

EXPEDITIONARY FIRE SUPPORT SYSTEM (EFSS)

DESCRIPTION

The EFSS is the third and final system of the land-based fire support triad that also includes the M777A2 Lightweight 155 mm Howitzer and the HIMARS. Accompanying the MAGTF in all types of expeditionary operations, EFSS is the primary IDF-support system for the vertical assault element of the ship-to-objective maneuver force for our Corps.

The EFSS consists of a M327 120 mm Rifled Towed Mortar, two ITV’s, and an ammunition trailer. The EFSS and its crew are internally transportable in two MV-22 Ospreys or two CH-53E helicopters and possess the flexibility and range required to execute operational maneuver from the sea.

OPERATIONAL IMPACT

Our Corps’ EFSS expands the MAGTF’s fire support options and provides increased flexibility in tailoring our fire support systems to support the scheme of maneuver. The current EFSS rifled high explosive ammunition is effective against area and point targets, to include motorized, light armored, and dismounted personnel; C2 systems; and IDF systems. EFSS-equipped MAGTFs are particularly well suited for missions requiring speed, tactical agility, and vertical transportability.

PROGRAM STATUS

The EFSS is in the operations and support phase. EFSS achieved IOC in March 2009 and FOC in 2013. The program continues to procure munitions in support of operations and sustainment.

PROCUREMENT PROFILE

Fully fielded for FY14 and FY15.
CHAPTER 3: PROGRAMS

PROGRAM STATUS

THS Block II is in sustainment. A scheduled Block III increment was delayed indefinitely due to reduced funding levels. The main hardware component of THS – the Military Ruggedized Tablet-B (MRT-B) – is supported through FY16. An upgrade of the software component – STRIKELINK v 1.2 – is in final development and will be fielded in 4th Qtr FY14.

STRIKELINK Ancillary Equipment (SLATE), a more lightweight, user-wearable hardware set, will be fielded to selected users upon successful completion of a Field User Evaluation in 1st Qtr FY14.

FY16 will bring a complete hardware refresh of MRT-B and SLATE systems with a lightweight solution that incorporates current advancements in handheld technology and encryption.

RECEIVING UNITS

• I MEF
• II MEF
• IV MEF

PROCUREMENT PROFILE

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DEVELOPER/MANUFACTURER

Stauder Technologies, Saint Peters, MO

MISSION PAYLOAD MODULE – NON-LETHAL WEAPON SYSTEM (MPM-NLWS)

DESCRIPTION

The MPM-NLWS will allow our forces to conduct counter-personnel missions by providing a new vehicle mounted, non-lethal tube launched munitions delivery system capable of suppressing human targets (e.g., the ability to degrade one or more functions or capabilities of a human target to render them ineffective) with minimal RSI.

MPM-NLWS will enable the tactical commander to employ non-lethal capabilities across the full range of the EoF continuum from early warning, to dispersion, to non-lethal suppression, thus enhancing the tactical commander’s capability to provide a tailored response to threats. The MPM-NLWS will mount to the Gun Shield of the HMMWV or its replacement.

Increment one of the MPM-NLWS will deliver an enhanced pyrotechnic munition from a tube-launch system. Future increments of the MPM-NLWS may include the capability to mount the system on additional vehicles (e.g., Light Armored Vehicle, Medium Tactical Vehicle Replacement, JLTV, and naval vessels).

Future increments may also include additional munitions, including obscuration, illumination, and other rounds to provide a more flexible response capability and enable the system to address future capability gaps.

OPERATIONAL IMPACT

The MPM-NLWS will provide significant improvements primarily in range, standoff distance, duration of effects, area coverage, volume of fire, and non-lethal effects when compared to current non-lethal weapon systems. MPM-NLWS munitions is designed to suppress personnel with a minimal RSI and is selectively employed in order to provide a graduated response option to scenarios involving crowd control, access or area denial, convoy operations, or lethal threat engagement.

PROGRAM STATUS

The program is currently in the EMD phase of the acquisition process, after receiving a favorable Milestone B decision and approval to release the RFP for an EMD contract in May 2012. During this phase, the contractor will complete the system design and provide systems (launchers and munitions) to our Corps for formal system qualification testing.
A Milestone C decision is planned for the 3d Qtr FY16. A contract option will be awarded for the production of the LRIP quantities for initial OT&E based on a favorable Milestone C decision. Operational testing is planned for the 4th Qtr FY16. IOC is planned for 4th Qtr FY17 and FOC for 4th Qtr FY18. The AAO is 312 systems.

DEVELOPER/MANUFACTURER
General Dynamics, St. Petersburg, FL

OCULAR INTERRUPTION SYSTEM (OIS)

DESCRIPTION
The OIS is a permanent replacement for the GLARE MOUT 532P-M and LA-9/P Green Beam Laser Systems, which were fielded to our units in the CENTCOM AOR in response to an Urgent Universal Need Statement.

The OIS is a weapons-mounted or handheld dazzling laser employed during our missions where EoF TTPs are employed to provide a non-lethal, force protection, and force application capability. The device will use bright coherent light to cause a visual field obscuration to warn and suppress targeted personnel at ranges from 10 to 500 m. The risk of inadvertent lasing from the OIS is mitigated through the use of automatic engineering controls. Additionally, the OIS will possess an inherent capability to visually suppress targeted individuals as the range from operator to target decreases.

OPERATIONAL IMPACT
The OIS is employed by our forces across the ROMO to provide a visual warning to personnel approaching lethal force authorized zones. The OIS will allow Marines engaged in combat, stability and security, and force protection operations to employ an intense visual cueing device to hail and warn personnel and vehicle operators at safe standoff distances.

The effective range of the OIS and its ability to automatically regulate dazzling laser energy to keep it below hazardous levels will allow us to challenge potential threats at greater distances than currently available while minimizing fatalities and limiting collateral damage.

OPERATIONAL VIEW
DPT is a next generation untethered personnel incapacitation system that permits Marines to acquire targets during both day and night operations at extended ranges.

The ability to engage point targets and disable individuals with reversible non-lethal effects at standoff ranges provides an enhanced capability for warfighters to safely engage targets.

**PROGRAM STATUS**
The DPT program is pending a Milestone decision and will begin the Technology Development phase in FY14.

**OPERATIONAL IMPACT**
DPT will provide operating forces with a non-lethal capability to disable point targets at desired ranges; and provide increased standoff and capability when executing EoF missions. Adequate standoff range increase decision-making and target engagement time, which reduces risk as warfighters are able to appropriately assess and engage targets.

The capability to engage and disable point targets with precision accuracy is applicable, in varying degrees, to our missions (crowd control, perimeter security, entry control point, vehicle checkpoint, etc.) where EoF TTPs apply. DPT will complement, not replace, lethal weapons in the use of force continuum.

**PROGRAM STATUS**
The DPT program is pending a Milestone decision and will begin the Technology Development phase in FY14.
The Disable Point Target (DPT) capability is intended to supplement the United States Marine Corps Escalation of Force Mission Modules with a non-lethal capability to disable single or multiple personnel point targets (sequentially) from beyond the range of thrown objects.
Section 5:
Command and Control/
Situational Awareness (C2/SA)
Introduction

Our Corps’ C2 ICD, approved by the Joint Requirements Oversight Council in 2008; our Corps’ Functional Concept for C2, approved in 2009; and the Marine Air Ground Task Force Command and Control Systems Concept of Operations (MAGTF C2 CONOPS), approved in 2013 incorporate joint integrating concepts and C2 mandates. Together, they articulate our goal of delivering end-to-end, fully integrated, cross-functional capability, including forward deployed and reach-back functions. They emphasize that C2 must be leader-centric and network-enabled, and that individual Marines must understand their commander’s intent and be able to support complex operations.

The C2 ICD, Functional Concept, C2 Systems CONOPS, and the MCIENTs will enable MAGTFs to exercise effective C2 and combine all warfighting functions into an effective fighting force. In addition, these programs support the ability of the MAGTFs to function in an integrated naval environment and participate in, or lead joint and multi-national operations.
CHAPTER 3: PROGRAMS

MARINE AIR GROUND TASK FORCE (MAGTF) COMMAND AND CONTROL (C2) VISION STATEMENT

MAGTF C2 focuses on the simple premise of getting the right information to the right Marines at the right time in order to make timely and informed decisions. MAGTF C2 is leader-centric, network-enabled, and is intended to support the continuous decision-making cycle of commanders at every level to ensure they are positioned to best plan, direct, coordinate, and control.

Networked C2 capabilities will connect all elements of the 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.

Commanders will have the ability to command and control disaggregated forces across great distances, which allows Enhanced MAGTF Operations (EMO) down to the company level and below.

MAGTF C2 has, at its core, the following ideas:
- commander/leader centric
- network-enabled
- information assurance (IA)
- collaborative
- shared situational understanding
- performed by all echelons
- can be performed anywhere in the operational environment

CE ROADMAP

As the CE Advocate, the DC, CD&I has published the CE Roadmap for FY14. Our Corps must envision and embrace emerging domains and opportunities, such as cyber and space, and fully integrate related capabilities into our combined arms toolkit.

The commander’s arsenal will enable the defeat of the enemy, whether the enemy is hunger in a humanitarian relief operation, insurgents in regional stabilization operations, or enemy attack aircraft during a forcible-entry operation. It is on this canvas that we will plan and integrate CE capabilities to promote agile, adaptive, and integrated skills to support a commander’s ability to command and control the MAGTF.

C2 serves as the commander’s primary weapon system to execute the art and science of expeditionary maneuver warfare in the air, on land and sea.

This Roadmap is intended to provide an evolutionary path forward for the CE while also sustaining linkages to the FY12 and FY13 MAGTF C2 Roadmaps.

MARINE CORPS INFORMATION ENTERPRISE (MCIENT) STRATEGY

MCIENT is our Corps’ information resources, assets, services, and processes, which are required to achieve decision and execution superiority. MCIENT also allows us to share information and knowledge across our Corps and with mission partners.

The MCIENT Strategy prepares us for the future by establishing a vision for our Corps as an information enterprise and by providing the objectives necessary for enhancing Service core competencies, defeating adversaries, supporting allies and mission partners, and performing our legislated role.

VISION

Our Corps will continue to meet the challenges of a complex security environment, fight and win the Nation’s battles, and endure as the Nation’s Expeditionary Force in Readiness.

To ensure these imperatives, we must evolve into a knowledge-based force that leverages seamless enterprise capabilities across the spectrum of conflict in order to enhance decision-making, achieve knowledge superiority, and gain tactical, operational, and strategic advantage over the Nation’s adversaries.

STRATEGY

Achieving our vision requires the development of improved mobile, communications, and IT services which are seamless and secure across the MCIENT. Communications and services with these characteristics facilitate collaboration, coordinated actions, and instant or NRT access to mission-critical data, information, and knowledge.

Investments in core MCIENT components are crucial for our Corps to evolve into a knowledge-based force that achieves decision and execution superiority in traditional warfighting domains, cyberspace, and business mission areas.
Investments for the MCEN and the Marine Corps Information Technology Environment (MCITE) will focus on ensuring their ability to more effectively deliver, display, and manage data, information, and knowledge across the enterprise.

Investments will also emphasize better ways to rapidly infuse emerging technologies that enhance C2, extend the reach of forward deployed forces, and improve organizational and tactical agility. Planned investments will ensure that bandwidth-limited Marines and missions partners will have improved access to mission-critical data, information, and knowledge, wherever and whenever needed, and in an understandable format.

Enterprise investments will focus on workforce education, training, and professionalization programs. Such initiatives will be designed to ensure Marines, Civilian Marines, and support contractors know how to use improved enterprise governance tools, policies, and technological capabilities to create an advantage in a dynamic strategic landscape.

Finally, the MCIENT will embody an institutional sense and practice for leveraging, protecting, and defending data, information, and knowledge as decisive strategic assets. To this end, we will infuse within our cyberspace capabilities an institutionalized IA practice for ensuring data, information, and knowledge yield decisive advantage to our Corps and the Nation, but not the enemy.

**CHARACTERISTICS**

**Focus on Deployed Forces:** In the future, the location of the MAGTF – or our other forward deployed forces – will vary depending upon: the operating context, mission, and the extent to which Marines interact with internal and external organizations, and individual mission partners. MCIENT components will support these Marines by facilitating the development and fielding of communications and IT services that are: mobile, seamless, secure, and provide modern collaboration tools, and instant or NRT access to mission-critical data, information, and knowledge.

**Attune to the Strategic Environment:** The MCIENT facilitates the development and fielding of tools, which help Marines, Civilian Marines, and contractors better assess, adapt to, and influence change in a dynamic strategic landscape. Attuning the enterprise to the strategic environment requires a special emphasis on leveraging intelligence, including cyber-intelligence, network attack, network protection, and for successful execution across the full spectrum operations.

**Grounded in Effective Governance:** MCIENT achieves effective governance by ensuring mechanisms are in place to ensure our capabilities are developed and fielded in support of our goals and objectives. The MCIENT Conceptual Model Diagram (pg. 220) provides a framework for integrating common functional requirements, which are applicable to MCIENT components, into Information Enterprise objectives.

The MCIENT Strategy is thus the mechanism for leveraging the MCIENT model to influence enterprise Force Development priorities. The MCIENT strategy provides us with single, top-level Information Enterprise objectives used to inform future capability decisions, supporting plans, concepts, and programming initiatives.

**Secure and Seamless Marine Corps Information Environment (MCIE):** MCIENT core components enhance the ability for Marines and their mission partners to access the information they need in austere and distributed environments, whenever they need it. Our Director C4/Chief Information Officer will coordinate with other organizations to define the implementations required for ensuring information is visible, accessible, discoverable, and understandable in a way consistent with the effective use of constrained bandwidth.

Additionally, through PoR and our IT regionalization practices, information will be distributed to deployed forces and staged as far forward as required to ensure availability in a bandwidth-constrained environment. Structured and unstructured data spanning all functional areas will support the distribution, forward staging, and sharing among all command echelons. Finally, creating a secure and seamless Information Environment requires an Enterprise Architecture (EA) that integrates all of our Corps’ components who manage segment architectures within the MCIENT (e.g., Battlespace Awareness and Force Application).

**IA Institutionalization:** To institutionalize IA across our Corps, our Marines and systems must embody a sense and capability for valuing information as a strategic asset. IA requires a total force approach that ensures IA skills sets and proficiencies are codified
and ingrained through doctrine, policy, education, and training. IA ensures the confidentiality, integrity, availability, authenticity, and non-repudiation of enterprise information and the information system on which the information resides.

Our Corps can better leverage enterprise information to help negotiate and succeed in a dynamic security environment. We will also continue to use existing development processes and continue to refine certification and accreditation processes to ensure IA requirements are identified and included early in a systems design project. We will ensure IA controls are inherent to the system, providing superior and transparent threat protection across a wide range of missions through the incorporation of emerging policies and guidance from the IA and acquisitions communities.

**MCIENT Core Components**

**MCEN:** At the foundation of the MCIENT model (pg. 220), is the MCEN, which is our network-of-networks and approved interconnected network segments, which comprise people, processes, logical and physical infrastructure, architecture, topology, and cyberspace operations.

The MCEN is characterized at a minimum to include: (1) PoRs that provide network services to forward deployed forces (e.g., the Support Wide Area Network) operating in the U.S. Marine Corps.mil namespace and in U.S. Marine Corps routable Internet Protocol (IP) addresses; and (2) O&M functions that provide data transportation, enterprise IT, network services, and boundary defense (e.g., Marine Corps Enterprise IT Services [MCEITS]).

Additionally, the MCEN’s physical infrastructure is similar to the Defense Information System Network (DISN) and the Local Exchange Carrier (LEC), as it enables the MCITE and the flow of data, information, and knowledge across the MCIE. The MCEN interfaces with external networks to provide information and resource sharing, as well as access to external services.

Finally, when end-user devices, sensors, applications, and appliances are connected to the MCEN, they become part of the network through a relationship established at an interface point. Interfaces, as indicated by the circular arrows connecting the MCEN and MCITE in the Conceptual Model Diagram, represent an important feature of the model that must be managed effectively to ensure component layer integration. Each MCIENT component layer contributes to the next higher layer by providing services through an approved interface.

**Regionalization of the MCEN:** The Marine Corps Regionalization Strategy describes the consolidation, operation, oversight, and management of the MCEN by defining and assigning regions and sub-regions of responsibility. Conceptually and functionally, these regions form the backbone of all net-centric operations for the MCIENT.

MCNOSC provides enterprise-wide operational oversight; the Regional Network Operations and Security Centers (RNOSC) provide policy and regional oversight to Marine Forces Reserves, Command, Pacific and the National Capital Region.

The MAGTF IT Support Centers (MITSC) are located to provide optimal support. The MITSCs serve as support centers for the bases, posts, and stations within their region by providing IT services and support, help desk services, and enforcing established IT policies. The MCNOSC, Alternate Network Operations Center (AltNOC), MCEITS, and ALT MCEITS are classified as enterprise data centers MITSCs primarily employ a regional data center.

A key tenant of regionalization is the unification and synchronization of disparate MCEN elements to ensure the MCEN’s ability to securely and rapidly deliver robust and seamless Marine Corps Information Technology and Information Environment. Unification also involves aligning the MCEN to the Joint Information Environment (JIE) using enforceable standards, specifications, and common TTPs.

The Next Generation Enterprise Network (NGEN) is an acquisition facilitator for unification contracts in the government-owned and government operated contractor supported environment of the MCEN. The NGEN contract will enable us to order IT services in the form of full time equivalent contractor support for the MCEN. MCEN must support Unified Capabilities (UC) defined as the integration of voice, video, and data services delivered across an interoperable, secure, and highly available network infrastructure in the future.

**MCITE:** The MCIENT Conceptual Model Diagram depicts the MCEN and MCITE as inextricably linked, but distinguishes the MCITE layer
CHAPTER 3: PROGRAMS

MCIENT CONCEPTUAL MODEL DIAGRAM

Information, knowledge, and understanding for the management processes. These processes ensure situational awareness across our Corps and with mission partners.

The MCIE often leverages, but does not always depend upon, technology and communications systems to facilitate the flow of data, information, and knowledge across the enterprise. Therefore, the MCIE represents a broad domain in which all communication takes place (e.g., explicit and implicit communications). Within the MCIE, situational understanding is achieved and decisions are made.

COMMERCIALSATELLITE(COMSAT) SERVICES

DESCRIPTION

The purpose of this program is to purchase Commercial SATCOM Bandwidth for training and operations that support OCO.

OPERATIONAL VIEW

Our forces require access to portable and scalable worldwide Commercial SATCOM Bandwidth. Commercial SATCOM Bandwidth mitigates current and projected limited access to Military Satellite Communications (MILSATCOM) to meet our requirements.
OPERATIONAL IMPACT

COMSAT services are an essential enabler of intra-MAGTF communications training that supports Communications-on-the-Move (COTM), Beyond Line Of Sight (BLOS), and At the Halt (ATH) down to battalion/company level that facilitates Non-classified Internet Protocol Router Network (NIPRNET), SIPRNET, Voice over Internet Protocol (VoIP), and Cyber Security defense in depth.

COMSAT services are also a critical enabler for conducting HA/DR, Tactics, Techniques, and Procedures (TTP), PTP, within the OPFOR, MAWTS, and MCTOG in order to support training, operations and deployments for OCO requirements.

PROGRAM STATUS

Commercial SATCOM bandwidth is currently funded via OCO through FY15. Baseline budgeting will begin in FY16.

RECEIVING UNITS

- I MEF
- II MEF

PROCUREMENT PROFILE

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DEVELOPER/MANUFACTURER

Undisclosed, Ft. Meade, MD

GLOBAL COMBAT SUPPORT SYSTEM – MARINE CORPS (GCSS-MC)

GCSS-MC is our Corps’ web-enabled, deployable logistics information system that provides the backbone for the logistics information exchanges required to effectively request, distribute, and maintain critical battlefield equipment and supplies. The system is an Acquisition Category (ACAT-IAM) program, also known as a MAIS.

To achieve this level of designation, a program must exceed $365 million in research and development funding and procurement funding and be designated as “Special Interest” by Congress. GCSS-MC is designed to initially replace three legacy based systems: Marine Corps Integrated Maintenance Management System; Asset Tracking for Logistics, and Supply; and Supported Activities Supply System.

As the primary technology enabler our Corps’ Expeditionary Logistics strategy, the core of GCSS-MC is a modern, COTS enterprise resource planning software package based on Oracle’s e-Business Suite. GCSS-MC enables the warfighter to operate both in garrison and while deployed, providing logistics chain “reach-back” from the battlefield.

OPERATIONAL IMPACT

Marines in combat require a rapid and flexible logistics capability responsive to the 21st century battlefield. GCSS-MC answers this critical operational imperative. GCSS-MC introduces cutting edge enabling technology in support of logistics operations by providing a deployable, single point-of-entry for retail logistics transactions, while facilitating modernization of aged logistics processes and procedures.

The key to sustaining deployed logistics operations is the enhancement of asset visibility and supply accountability. Critical performance objectives include reduced logistics response, reduced customer wait time, and decreased dependence on forward positioned stocks. Commanders will benefit from GCSS-MC due to increased Logistics Chain intelligence vital to effective C2 functions.

Marines in supply, maintenance, and distribution will experience increased efficiency in planning, accountability, and expedited delivery of supplies and equipment to supported units. GCSS-MC Increment 1 will ride on our existing TDN, and contains Release 1.1 and Release 1.1.1. Release 1.1 provides for basic supply, maintenance, and asset tracking functionalities. Release 1.1.1 centers on the introduction of three capabilities that enhance system functions in deployed environments.
OPERATIONAL IMPACT (CONT.)

Release 1.1.1 will deliver: Enterprise Automated Task Organization (EATO) to improve the composition and decomposition of the MAGTF by providing batch processing of equipment and personnel between organizations; Mobile Field Service (MFS) to support limited supply and maintenance transactions while disconnected from the enterprise system; and the Riverbed Steelhead Appliance (RSA) capability to support network acceleration for improved connectivity in a tactical, shipboard, and garrison network.

PROGRAM STATUS

Increment 1: The fielding of Release 1.1 to all operational units, bases, and stations was completed in early 2013. Development of Release 1.1.1 capability is ongoing, with fielding expected to begin during 2015. Metrics collection is a strong component of GCSS-MC. Initial post-implementation metrics indicate improvements in order ship time, repair cycle time, and time to first status (initial supply system status notification after submission of requisition).

The full impact of these logistics enhancements will take time to assess and interpret, but initial data indicates positive results.

Future Increments: Future development efforts will be directed towards advancements that will achieve increased interoperability between GCSS-MC and other logistics information systems to provide the Operating Forces a holistic view of the logistics chain. Other future capabilities currently being explored include:

- solutions that enable expeditionary logistics operations in austere environments with limited to no network availability;
- key system enhancements for warehouse management;
- functionality for transportation and distribution, enterprise maintenance management, logistics chain management and integration, engineering services, and medical support.

DEVELOPER/MANUFACTURER

Oracle USA, Inc., Redwood Shores, CA
TACTICAL COMMUNICATIONS MODERNIZATION (TCM)

DESCRIPTION
TCM was initially established to procure interim radio systems to bridge the gap between legacy systems and JTRS hardware deliveries. The program schedule and budget profile for TCM procures multiple families of radio systems to support the primary operational voice and data communications requirements for mounted and dismounted forces.

TCM procurements enable a joint networking capability and support NSA Communications Security (COMSEC) Modernization.

OPERATIONAL IMPACT
Provide Tactical Communications Systems (TCS) and life-cycle support that provide voice and data communications capabilities to the warfighter in order to facilitate C2 from the MEF to Squad Level.

DEVELOPER(S)/MANUFACTURER(S)
- Harris Corporation, Tampa FL
- Motorola Solutions, Schaumburg, IL
- Thales Raytheon, Fullerton, CA

NETWORKING ON-THE-MOVE (NOTM)

NOTM is a transformational C2 capability for all elements of the MAGTF. NOTM specifically targets urgent CENTCOM requirements but the program is envisioned to address broader requirements in an incremental approach. NOTM leverages expertise and lessons learned from developing Mobile Modular Command and Control (M2C2) systems, which have been operating in OEF since 2009.

NOTM is also an Urgent Statement of Need (USON) based rapid acquisition and fielding program, which provides robust C2 on-the-move by utilizing wideband SATCOMs and terrestrial data links. NOTM consists of four subsystems: Point of Presence Vehicle Kit (POP); Staff Vehicle Kit (SV Kit); Staff Kit (SK); and Tactical Entry Point (TEP) Modem Kit (TMK).

NOTM provides access to three network enclaves, SIPRNET; NIPRNET and Mission Specific while incorporating Full Motion Video (FMV), VoIP, and other data centric capabilities integrated onto our Corps’ tactical vehicles.

NOTM SKs comprise ruggedized laptops with a full suite of Joint Common Tactical Workstation (JCTW) software to access the CTP and tactical data systems extending C2 capabilities from the rear COC to units on-the-move at the tactical edge.

OPERATIONAL IMPACT
NOTM extends C2 capabilities from rear COCs to commanders and their staff while they are on-the-move and BLOS in tactical vehicles. Wideband satellite communications and redundant transmission paths enable mobile forces, across the MAGTF to collaborate, access information, and to exchange voice, video, email, chat, and COP information in a dynamic environment while on-the-move.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF

PROGRAM STATUS
NOTM was designated an ACAT IV (M) in January 2012 and obtained IOC on March 2013. The Program is in FRP and fielding of NOTM HMMWV/ Mine Resistant Ambush Protected All-Terrain Vehicle variants.

The NOTM AAV variant design is underway with testing scheduled for 2d Qtr FY14. Fielding is scheduled for completion in 4th Qtr FY14 in response to Urgent Statement of Needs requirements.
CHAPTER 3: PROGRAMS

OPERATIONAL VIEW

The AN/TRC-170 is a transportable BLOS, terrestrial, self-enclosed troposcatter terminal (multi-channel) capable of transmitting and receiving digital data over varying distances. The AN/MRC-142 consists of the AN/MRC-142B (ship to shore) and C variants to provide LOS, two-way, secure voice and data communications. The WPPL-D is an integrated communications system, which consists of COTS radios, antennas, and IP networking equipment that provides data connectivity, voice, and video services.

The Tactical Elevated Antenna Mast System (TEAMS) has a telescopic mast system, extending support to various organic LOS systems (AN/MRC142C, EPLRS, TAOM, and TSSR) by increasing operational reach by overcoming obstacles to communications.

TERRESTRIAL WIDEBAND TRANSMISSION SYSTEM (TWTS)

DESCRIPTION

TWTS is a capabilities portfolio of terrestrial based wideband transmission systems (formerly known as the TRC-170 MCPC). The portfolio includes BLOS system (i.e., AN/TRC-170V3/V5), Line of Sight (LOS) systems (i.e., AN/MRC-142 B/C), Troposcatter Support Radio (TSSR), and Wireless Point-to-Point-Link version D (WPPL-D).

PROCUREMENT PROFILE

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DEVELOPER(S)/MANUFACTURER(S)

- Undisclosed, San Diego, CA
- Undisclosed, Charleston, SC
- Pelatron, Inc., Honolulu, HI

OPERATIONAL IMPACT

The TWTS provides the MAGTF with connectivity into the GIG via: Standardized Tactical Entry Point (STEP) sites/teleports; connectivity for tactical circuit switched (i.e., Digital Switch Backbone); packet switched data networks (i.e., TDN, Transition Switch Module (TSM), Data Distribution System variants
(DDS, DDS-M, DDS-R), and the Digital Technical Control (DTC)). TWTS is also used to establish connectivity between JTF CEs and the MEF CE; and internally between MSC CEs (i.e., GCE and ACE) of the MEF; Wireless LAN extension of NIPRNET, SIPRNET and voice services.

COMPOSITE TRACKING NETWORK (CTN)

DESCRIPTION
CTN is an adaptation of the U.S. Navy’s Cooperative Engagement Capability (CEC) for our sensors, weapons, and C2 systems. CTN distributes composite tracking data and fire control quality data to C2 nodes and weapon systems in the network. IOC was achieved in March 2011 with the fielding of two systems to Marine Air Control Squadron Two. We plan to procure a total of 27 systems. FOC is projected to occur between 1st Qtr FY16 and 3d Qtr FY16.

OPERATIONAL IMPACT
The CTN system currently interfaces with the AN/TPS-59, to provide MAGTF and JTF commanders a ground-based sensor netting solution that correlates sensor measurement data (target velocity and position) from local and remote radars. This data will effectively increase SA by providing accurate, composite, real-time surveillance tracks to the warfighter.

DEVELOPER/MANUFACTURER
Undisclosed, Crane, IN

JOINT BATTLE COMMAND PLATFORM (JBC-P)

DESCRIPTION
JBC-P FoS is a primary C2 capability for U.S. Marine Corps Battalion and below echelons within MAGTF Command, Control, and Communication (MAGTF C3). It provides tactical input and output of battlefield digitized position location information and SA at the company, squad, and platform level. JBC-P FoS supports the full ROMOs, enables enhanced combat effectiveness of friendly forces, populates the CTP, and supports development of the COP.
JBC-P builds on the experience of evolutionary development of digital battle command information systems and provides integrated, on-the-move, timely, and relevant C2/SA information to tactical combat, combat support, and combat service support commanders, leaders, and key C2 nodes.

JBC-P FoS provides mounted (vehicle platforms), dismounted, Tactical Operations Center (TOC) kit, and will become the cornerstone of the Joint Blue Force SA envisioned to support the joint warfighter.

**DEVELOPER/MANUFACTURER**
Undisclosed, Huntsville, AL

**TACTICAL NETWORKING SYSTEMS**

**DESCRIPTION**
Tactical Networking Systems is a portfolio of core baseband networking hardware and software configured as a family of services that facilitates end-user services requirements of multiple security enclaves for MAGTF tactical communications networks.

The portfolio comprises the:

- Joint Enhanced Core Communications System (JECCS);
- the TDN, which includes the DDS-M Core, and Expansion modules;
- the DTC;
- the TSM.

JECCS is the Joint Task Force Enabler (JTFE), a “first-in” integrated, processor controlled communications and management system that provides C2 capabilities to support a deployment by a larger CE, such as a the MAGTF or JTF commander’s mission into an area of operations.

The DDS-M is the G4 product within the TDN FoS, and replaces all preceding legacy systems. The modular packaging of the TDN DDS-M provides a ‘take what the mission needs’ employment concept within the MAGTF.

The TDN DDS-M provides the backbone data communications infrastructure to the MAGTF in the form of an integrated data network. TDN DDS-M provides the capability to authenticate users and equipment, send and receive electronic mail, share and store files, perform required IA functions, and transparently route and switch digital messages between the LAN, circuit switch, and Tactical Wideband Networking Radios sub networks.

The DTC supports MAGTF C2 communications mission objectives by providing circuit switching/multiplexing, transmission multiplexing, network management, electronic data security, and manual patching capability for deployed Marine forces.

The DTC is the primary communications hub for the interface between deployed, Joint, Coalition and MAGTF Command, Control, Communications, and Computers (C4) nodes, terrestrial and satellite systems, and the DISN employed at the MSC and MEF Headquarters.

The DTC integrates COTS/GOTS equipment within a mobile S280 tactical shelter transportable via a Government Furnished Equipment (GFE) vehicle when fielded. The TSM is a modular Integrated Services Digital Network (ISDN) circuit switch capable system that combines multiplexing, transmission encryption, group modem, and Uninterruptable Power Supply (UPS) capabilities in one system.

The TSM system serves three purposes:

1. replace legacy switching equipment
2. provide switching connectivity internal to the MAGTF
3. provide switching connectivity to joint, coalition, and host nation telephone networks

TSM consists of three functional suites:

1. the Deployable End Office Suite (DEOS)
2. the Remote Subscriber Access Module (RSAM)
3. the Deployable Integrated Transport System (DITS)

**OPERATIONAL IMPACT**
JECCS meets the JTFE mission requirements with a “first-in” backbone connectivity capability that accesses the Defense Information Network STEP, NIPRNET/SIPRNET, Video Teleconference, and Defense Switch Network.

JECCS augments current and some planned communications architectures and provides technical control and network management services for a broad range of switching and radio connectivity requirements.
From the MEF user’s perspective, the DTC provides the multi-plexing and link management of four general categories of information. The DTC manages voice/circuit switches, data switches, and dedicated circuits.

TSM is employed at all levels of the MAGTF to effect voice and limited data switching capability. The modular design allows units to implement the system according to the mission needs.

The equipment is operated and maintained by: MSC, MEU, MEB, and MEF communications personnel. The number of TSM packages deployed to a theater will be equal to the size of the operation/contingency. The TSM equipment is fielded to all levels of the MAGTF.

**DEVELOPER(S)/MANUFACTURER(S)**
- Undisclosed, Charleston, SC
- Undisclosed, Patuxent River, MD

**OPERATIONAL VIEW(S)**

The TSM provides voice and data switched system subscriber service for command, control, administrative, and logistic communications support for all Marine Air Ground Task Force (MAGTF) command echelons down to the regimental, group, and battalion/squadron. TSM facilitates secure and non-secure voice, circuit switching functions, and network routing and management functions with current fielded tactical systems of the military services. TSM is able to interoperate with joint, coalition, and host nation networks, and operates in unclassified and classified environments.
CHAPTER 3: PROGRAMS

OPERATIONAL VIEW (JECCS)

This OV-1 illustrates the use of the Joint Enhanced Core Communication System (JECCS) supporting a MEU (or other MAGTF CE) operating under a Joint Task Force (JTF). The JECCS is a network and communications management system designed to primarily provide secure and non-secure voice, data, and video teleconferencing (VTC) support to the Marine Expeditionary Unit (MEU) headquarters. The JECCS will interface with currently fielded tactical systems of the Army, Navy, Air Force, as well as the Defense Information Systems Network (DISN).

OPERATIONAL VIEW (TDN DDS)
CHAPTER 3: PROGRAMS

OPERATIONAL VIEW (DTC)

Digital Technical Control (DTC)
High-Level Operational Concept Graphic (OV-1)

The DTC facility provides a technical control function for the MAGTF Commander. The DTC performs control and management functions over expanding digital communications systems integrating the communications assets of a node into an efficient system that provides the MAGTF commander with seamless communications while making efficient use of limited bandwidth and equipment. The DTC is the central management facility, terminating all terrestrial links and switch circuits for major commands. Data circuits and miscellaneous subscriber circuits are interconnected, as required.

INFORMATION OPERATIONS (IO)

The past decade has witnessed fundamental changes in the information environment, which makes availability and access to information more prevalent than in the past. For this reason, we must develop and maintain the ability to influence the content and flow of information to potential adversaries, as well as foreign civilian audiences in the area of operations.

Marines overcome uncertainty and adversity through the innovative application of combined arms. IO is a natural extension and evolution of our Corps’ combined arms mind-set and maneuverist tradition of taking the initiative embodied within MCDP-1 Warfighting.

IO seeks to integrate and synchronize information related capabilities with maneuver to target the enemy’s decision-making cycle while enhancing our own, whether applied in shaping the operational environment to deter conflict or in enabling decisive maneuver.

The targeting means is secondary to the deliberately induced lethal or non-lethal effects that produce operational advantages for the commander. Ultimately, the focus is always upon creating exploitable operational conditions which lead to the accomplishment of the unit’s mission. Our Corps’ Operating Concept for IO is intended to promote discussion and to serve as the catalyst for innovative planning throughout our Corps, while focused within the MAGTF. ¹

MARINE CIVIL INFORMATION MANAGEMENT SYSTEM (MARCIMS)

DESCRIPTION

MARCIMS consists of two main entities, a mobile collection device and a semantic-wiki. The semantic-wiki is an authenticated and protected website for information collaboration purposes. The mobile device is a COTS product with a MARCIMS application. Operating in the civil military environment, collectors can input civil information into the application via standardized forms.

The completed forms are transmitted wirelessly over the internet to the MARCIMS database for publishing on the MARCIMS website. This password

protected site allows approved JIM partners to access the information, as well as the ability to compile data for presentation to commanders at any level.

OPERATIONAL IMPACT
One of the many lessons learned from the numerous humanitarian assistance operations conducted in the past five years is that U.S. Government Agencies and their inter-governmental and multi-national partners do not have processes to allow the sharing of unclassified civil information. In a Humanitarian crisis, being able to share civil information in a timely matter with the appropriate organizations can mean life or death to thousands of civilians, and the success or failure of our Corps’ response.

MARCIMS allows unclassified information to be shared with approved partners operating on the ground around our Corps’ forces. MARCIMS spearheads the way for the automated sharing of unclassified Civil Information as we continue to improve its interoperability with Joint and Interagency partners.

PROGRAM STATUS
MARCIMS originated from a development program in the MARFORPAC Experimentation Center. In January 2014, it transitioned out of an S and T project into a Program of Record managed by MCSC. It has been used as part of Civil Military Operations objectives in overseas training exercises such as Balikatan and Cobra Gold in 2012 and 2013. Following testing in February 2014, MARCIMS will reach IOC in July 2014, and subsequently FOC in June of 2015.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF

DEVELOPER/MANUFACTURER
- MILCORD, Boston, MA
- Samsung, San Jose, CA

OPERATIONAL VIEW
CHAPTER 3: PROGRAMS

PUBLIC AFFAIRS SYSTEMS (PAS)

DESCRIPTION

The PAS AAP identifies and fields materiel solutions required to research and plan communication initiatives, acquire still and video visual information, produce and disseminate communication products, and assess the effects of communication initiatives within the information environment. The program maintains an evolutionary approach to acquisitions, and leverages commercial industry standard NDIs to provide the best value to our Corps, while keeping Public Affairs (PA) Marines appropriately equipped to understand and affect the information environment.

OPERATIONAL IMPACT

PA provides the MAGTF and our broader Corps with the capability to research, understand and affect the information environment. PAS enables commanders at all levels and across the ROMOs to engage domestic and foreign publics whose trust, confidence, and understanding are mission-critical.

PROCUREMENT PROFILE

The PAS program is in the operations and support phase and is supporting a three or five-year life-cycle and refresh schedule. PA Video Editing System, PA Still Acquisition System, and PA Video Acquisition Systems are refreshed on a three-year life-cycle; PA News Link System is refreshed on a five-year life-cycle. Software upgrades and updates are completed in accordance with the PA Systems IA Strategy and IA Vulnerability Alert Management Plan.

OPERATIONAL VIEW

PA Marines conduct information environment research, provide command counsel, support crisis communication, issue mitigation, and acquire, produce, transmit, and disseminate multimedia communication products, which support integrated communication strategies to engage key domestic and foreign publics. PA Marines also create non-kinetic effects at the tactical level through key leader, community, media, and social media engagement. At the operational level and strategic levels, PA Marines create a higher level of understanding and confidence by using unique capabilities of the MAGTF.
PROGRAM STATUS
The PAS program evolved from statements of need and urgent need statements to an AAP with official designation at MCSC on 3 January 2013. The program achieved FOC in 2008, and is currently fielding, refreshing, and sustaining all material requirements for the PA field across the ROMOs; to include the supporting establishment.

PAS has supported the PA mission in current conflicts, exercises, and humanitarian response operations. The program is working on processes, and establishing adequate funding to ensure our Corps’ PA capability can keep pace with rapidly evolving technologies, in order to maintain its relevance in the information environment, and to sustain conversation with global publics.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF
- IV MEF

PROCUREMENT PROFILE
The PAS program is in the operations and support phase and is supporting a three or five-year life-cycle and refresh schedule.

PA Video Editing System, PA Still Acquisition System, and PA Video Acquisition Systems are refreshed on a three-year life-cycle; PA News Link System is refreshed on a five-year life-cycle.

Software upgrades and updates are completed in accordance with the PA Systems IA Strategy and IA Vulnerability Alert Management Plan.

MANUFACTURER
- Tampa Microwave, Tampa, FL
- Panasonic, Newark, NJ
- Canon, Melville, NY
- Dell, Round Rock, TX

COMBAT CAMERA SYSTEMS (CCS)

DESCRIPTION
Combat Camera Systems (CCS) FoS provides users with an enhanced capability to:
- plan, acquire, process, edit, develop, print, and transmit HD digital imagery and HD video;
- develop and produce multimedia productions and products;
- provide a printing capability;
- support the MAGTF and SE commander’s communication synchronization requirements.

CCS is comprised of various scalable systems, and accessory equipment, which supports the full ROMOs, and the rapidly changing information environment. CCS provides users with the required systems to support commanders in combat operations, on land or afloat, with visual information. This capability includes COTS HD still cameras, HD video cameras, accessories for low light imagery acquisition, high performance computer systems for imagery editing, product development, and mass printing reproduction.

The following equipment is included in the CCS FoS:
- Combat Imagery Scalable Archive Database (CISAD): Fills the requirement for hardware and software capable of importing, cataloging, archiving and retrieving video and still digital imagery, and to make imagery available to commanders via a web based searchable database.
- Combat Still Acquisition System (CSAS): Fills the requirement for high resolution digital still imagery acquisition.
- Combat Video Acquisition System (CVAS): Fills the requirement for high resolution digital video imagery acquisition.
- Night Vision System, Camera (NVSC): Fills the requirement to acquire still and video imagery in low light.
- Visual Information Imagery Editing System (VIES): Fills the requirement for still and video imagery editing, product development and transmission.
- Tactical Imagery Production System (TIPS): Fills the requirement for high speed printing, video and photo duplication; editing, product development, printing, and dissemination.

RECEIVING UNITS
- I MEF
- II MEF

OPERATIONAL IMPACT
Combat Camera (COMCAM): provides Marines with digital HD imagery, video, and graphic design and reproduction capabilities in order to acquire, develop,
and mass produce visual information products for the MAGTF, commanders, and Joint and coalition forces. As with all combat operations, relative speed and concentration of effort are paramount to both commanders and their staffs. Imagery is used to plan missions, identify critical information, and develop information objectives, themes, and messages. Images are also used to counter disinformation programs in support of sensitive operations.

COMCAM footage is often the only imagery of key events. Operating forces require speed of dissemination to ensure visual information is passed and viewed as soon as possible after acquisition.

Imagery acquired by COMCAM personnel helps facilitate expedient decision-making. COMCAM imagery supports operational requirements, and significantly enhances/influences intelligence activities, MISO, Military Deception (MILDEC), PA requirements, and historical records.

For this reason, COMCAM provides photography, video, graphic design, and mass reproduction capabilities in order to develop and mass produce visual information products.

Print reproduction supports missions by giving the commander high output reproduction capabilities, which are critical to the commander when dealing with mission needs that require multiple reproductions of official documents, pamphlets, IO handbills, mass information dissemination, and other mass production of printed material.

**PROGRAM STATUS**

Major components of the CCS FoS include cameras, computers, and reproduction equipment. These components are COTS equipment, which use industry standard specifications and interfaces. The TIPS shelters, the Tactical Quiet Generators and the Environmental Control Units, which are GOTS items.

**DEVELOPER(S)/MANUFACTURER(S)**

- Canon, Melville, NY
- Dell, Round Rock, TX
- B.E. Meyers, Redmond, WA
- CCS Parts, Communications-Electronics Research Division, Aberdeen, MD
COMMON AVIATION COMMAND AND CONTROL SYSTEM (CAC2S)

DESCRIPTION

CAC2S will provide a complete and coordinated modernization of MACCS equipment. CAC2S will eliminate current dissimilar systems and provide the MAGTF Combat Element with the hardware, software, and facilities to effectively command, control, and coordinate air operations integrated with naval, joint, and/or combined 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.

CAC2S Phase 1 successfully completed its initial OT&E in 2011. Subsequently, Phase 1 received its full deployment decision in the 4th Qtr FY11 and limited deployment capability in February 2012.

Phase 2 is currently in the EMD phase with a Milestone C decision anticipated in the 4th Qtr FY14. CAC2S Phase 1 successfully completed its initial OT&E in 2011. Subsequently, Phase 1 received its full deployment decision in the 4th Qtr FY11 and limited deployment capability in February 2012. Phase 2 is currently in the EMD phase with a Milestone C decision anticipated in the 4th Qtr FY14.

OPERATIONAL IMPACT

CAC2S has been restructured with an approved revised acquisition strategy. Increment I requirements will be achieved in two phases. Phase 1 accommodates rapid fielding of operationally relevant capabilities to include mobility, SA, 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 establish an initial product baseline Processing and Display Subsystem (PDS) and Communications Subsystem (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 C2 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.

DEVELOPER(S)/MANUFACTURER(S)

• Raytheon-Solypsis, Fulton, MD
• General Dynamics, Fulton, MD

OPERATIONAL VIEW
Section 6: Intelligence, Surveillance, and Reconnaissance (ISR)
Introduction

MCISR-E REQUIREMENTS AND ACQUISITION STRATEGY

The MCISR-E is the synergistic integration of all Service ISR elements into a single capability or system networked across all echelons and functional areas, which includes the operating forces, supporting establishment, systems, and personnel in order to achieve superior decision-making and enhance mission success.

The MCISR-E acquisition strategy exploits technological advances and creates efficiencies in acquisition by leveraging the Information System construct and utilizing common hardware/software to the maximum extent. The end-state is a lighter, more adaptable family of ISR systems capable of supporting the MAGTF and Joint Commanders across the ROMOs. Through our enterprise capabilities, ISR also leverages national, joint, and CSA capabilities to address MAGTF requirements, while serving as a contributing partner to those agencies.

MCISR-E is comprised of the personnel, doctrine, policies, organizations, training, education, equipment, and facilities, which provide the ways and means to enable ISR support to the MAGTF, joint forces, and the Supporting Establishment. The MCISR-E strategy continues to implement an enterprise solution in which all ISR functions, sources, and methods across the total force, leverage and share for operational success. The equipment acquisition strategy initially focuses on the intelligence processing, exploitation, analysis, and production systems within the Distributed Common Ground/Surface System Marine Corps (DCGS-MC).
Other functions of the MCISR-E include persistent ISR and intelligence dissemination and utilization. Persistent ISR provides the means for tasking, directing, and collecting, while intelligence dissemination and utilization addresses the systems associated with dissemination, use, and feedback of intelligence. Through persistent ISR, our Corps seeks 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.

For our Corps’ Intelligence to remain effective, it must evolve and adapt to the changing demands of the modern battlefield and the capabilities offered by advances in technology. Through our enterprise capabilities, Marine Corps ISR also leverages national, joint, and CSA capabilities to address MAGTF requirements, and serves as a contributing partner to those agencies. The MCISR-E acquisition strategy will focus on providing an adaptive and flexible ISR framework that supports the intelligence requirements of a multi-capable MAGTF as it executes expeditionary operations against hybrid threats in a complex environment. The equipment transition plan must establish business processes for combat development and acquisition for MCISR-E, and includes: architecture, development of a Common Computing Environment (CCE) between elements, and streamline requirements for document protection.

The programs discussed in the Intelligence, Surveillance, and Reconnaissance section will enable the MAGTFs to exercise effective C2 and conduct ISR operations. In addition, these programs support the ability of the MAGTFs to participate in or lead joint and multi-national operations.
UNMANNED AIRCRAFT SYSTEMS (UAS) SENSOR PAYLOADS

DESCRIPTION

The UAS Sensor Payload program provides our Corps with the means to: identify, fund, develop, integrate, field, and sustain sensor payloads across the U.S. Marine Corps UAS FoS.

These sensor payloads will support organic intelligence collection efforts to achieve persistent intelligence, surveillance, and reconnaissance (PISR) and provide enhanced battlespace awareness.

OPERATIONAL IMPACT

This program will provide multi-intelligence sensor payloads for U.S. Marine Corps UAS FoS focused on:

- RQ-21A Small Tactical UAS (STUAS)
- Family of Small UAS (SUAS)
- Group 1 Family of Small UAS, WASP IV, RQ-11B Raven B, RQ-20 Puma

These capabilities greatly enhance intelligence collection capabilities, provision of battlespace awareness, and intelligence of the MAGTF.

PROGRAM STATUS

UAS Sensor Payloads is a pre-acquisition POR.

RECEIVING UNITS

- VMU-1
- VMU-2
- VMU-3

PROCUREMENT PROFILE

UAS Sensor payloads has an initial funding profile of $2M R&D per year across the FYDP beginning in FY15.

Additional funding (R&D, PMC, and OMMC) will be requested during development of the U.S. Marine Corps build for its POM16 submission.

OPERATIONAL VIEW
COMMUNICATIONSEMITTHERSENSING AND ATTACK SYSTEMS II (CESAS II)

DESCRIPTION
The Communication Emitter Sensing and Attack Systems (CESAS) II is our sole high power, ground mobile EA asset and provides the MAGTF with the capability to detect, deny, and disrupt threat communications. Radio Reconnaissance Equipment Man Packable Electronic Attack System (RREMPEAS) is the CESAS II man packable EA capability.

OPERATIONAL IMPACT
CESAS II provides the MAGTF with its only organic high power, ground mobile EA capability to deny, disrupt, or degrade detected enemy communications and is employed in general support of the MAGTF. CESAS is a force multiplier that enhances the Radio Battalion’s ability to support and execute the MAGTF Information Warfare Plan. RREMPEAS is our only man packable EA system.

PROGRAM STATUS
CESAS II is an Abbreviated Acquisition Program (AAP) currently in the EMD Phase. During FY14, development, integration and test activities are planned. Milestone C is anticipated to occur in November 2014. RREMPEAS is in production and expected to be fielded in 2d Qtr FY14.

RECEIVING UNITS
- I MEF
- II MEF
- III MEF

PROCUREMENT PROFILE

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DEVELOPER(S)/MANUFACTURER(S)
- SPAWAR, Charleston SC
- Naval Air Warfare Center, Point Mugu, CA
- Sierra Nevada Corporation, Los Gatos, CA

OPERATIONAL VIEW

CESAS II Electronic Attack (EA) missions provide depth to the total fires available to a commander. EA denies, degrades, and disrupts threat communications and can be used singularly or in combination with lethal fires, as mission, situation, and threat dictate. As part of fires support to MAGTF operations, CESAS II can be employed in several configurations (dependent on tasking from the CEWCC).
CHAPTER 3: PROGRAMS

21ST CENTURY MARINE EXPEDITIONARY INTELLIGENCE ANALYSIS (MEIA-21)

DESCRIPTION

MEIA-21 is a non-material analysis modernization program aimed at improving intelligence analysis from the Company Level Intelligence Cell to the Service Intelligence Center. The program is led by the Center for Marine Expeditionary Intelligence Knowledge (CMEIK), which achieved initial operating capability in FY11. CMEIK’s mission is to develop, capture and refine, promulgate, and review standards and approaches in order to improve intelligence analysis throughout the Marine Corps Intelligence Enterprise.

CMEIK employs experts in diverse aspects of analytic tradecraft who regularly develop and refine foundational tradecraft. CMEIK also captures and refines solutions to intelligence problems that Marines have confronted during military operations in conjunction with analytic methodologists throughout our Marine Corps Intelligence Enterprise.

In addition, CMEIK transforms the otherwise perishable practices into Structured Models Approaches and Techniques (SMATs) of new applied analytic tradecraft by working with experienced scholars, practitioners, and experts. As it is developed, the foundational and applied analytic tradecraft is promulgated digitally across the enterprise for intelligence analysts to use in addressing a wide range of operational requirements. Analytic methodologists in tradecraft groups at intelligence formations across the Enterprise use the accompanying instructional material to train analysts in their organizations.

OPERATIONAL IMPACT

MEIA-21 provides Marine intelligence analysts with dependable foundational analytic tradecraft and reliable applied analytic tradecraft that is based on social and physical science principles and is applicable across the MAGTF and Intelligence Enterprise.

Enhanced tradecraft allows analysts to reliably and accurately answer complex intelligence questions, by providing actionable intelligence that reduces uncertainty and informs decision-making for commanders. The Intelligence Community (IC), international partners, and academia, and MEIA-21 helps analysts describe, explain, and anticipate an increasingly complex operational environment with rigor and transparency by collecting analytic best practices from our analysts. The MEIA-21 Program will standardize intelligence practices and lead to increased intelligence analysis professionalism across the Marine Corps Intelligence Enterprise.

PROGRAM STATUS

In 2011, Marine Intelligence collected, improved, and disseminated 27 individual elements of applied analytic tradecraft for training and operational use.

In 2012, CMEIK refined and validated 23 SMATs with an external Social Science Board; created nine new SMATs; produced a handbook of social science theories applicable to SMATs; and developed a framework for foundational SMATs to support and/or feed into other, more complex SMATs.

CMEIK conducted five training sessions targeted at developing tradecraft facilitators at intelligence units throughout the Marine Corps Intelligence Enterprise. In addition, CMEIK collaborated with Advanced Analytics tool developers to automate some processes associated with SMATs.

In 2013, CMEIK added three SMATs to the inventory and developed instructional material for Analytic Tradecraft Standards, Socio-Cultural Analysis, Crafting Advanced Analytic Arguments, and Advanced Briefing. CMEIK experts conducted over 25 training sessions to an increasingly varied audience including Intelligence Battalions, MLGs, Marine Air Wings, Radio Battalions, Marine Corps IO Center, MARFORCYBER Command, MCIA, and 5-eye and other foreign partners. CMEIK also produced 10 Tradecraft Notes, which is a new product line focused on various aspects of analytic tradecraft. In addition, CMEIK began publishing a Quarterly Newsletter to spread tradecraft news throughout the Enterprise.

UNDERWATER RECONNAISSANCE CAPABILITY (URC)

DESCRIPTION

URC is a family of programs that provide the ground reconnaissance community with the ability to conduct underwater operations in support of the five core capabilities of Expeditionary Ground Reconnaissance (EGR): C2 of Reconnaissance Operations, Amphibious Reconnaissance, Ground Reconnaissance, Battlespace Shaping Operations, and Raids.
Two primary programs under the URC family include the Diver Propulsion Device (DPD) and the Tactical Hydrographic Survey Equipment (THSE). URC also includes numerous smaller programs required by the Marine Combat Diver to include small boats, dive masks, vests, oxygen tanks, and ancillary equipment for successful dive operations.

THE DIVER PROPULSION DEVICE (DPD)

The DPD is an underwater motorized device that provides long-range underwater delivery of a combatant dive pair to conduct amphibious reconnaissance missions in support of the MAGTF. The new integrated system is expected to be called the Diver Reconnaissance Vehicle (DRV) consisting of navigation, diver propulsion, and sonar capabilities.

The DPD provides the MAGTF with pre-assault reconnaissance information, including hydrographic cartography, beach analysis, technical examination of beach exits, and nearby landing places as well as estimates of weather, terrain, and enemy dispositions. The DPD improves diver range, payload, and speed. An additional battery can be added to increase mission endurance.

TACTICAL HYDROGRAPHIC SURVEY EQUIPMENT (THSE)

The THSE is a handheld, underwater mapping system with Global Positioning System (GPS) oriented known point capability which will be employed by combatant divers to conduct the hydrographic surveying portion of Confirmatory Beach Report missions.

The THSE integrates sonar and navigation technology to provide swimmers and combatant diver pairs the ability to conduct tactical submerged hydrographic reconnaissance and electronically chart bottom conditions of the seaward approach to potential amphibious landing beaches in support of the MAGTF.

OPERATIONAL IMPACT

Reconnaissance Marines employing URC provide unique advantages during Advance Force Operations (AFO) of an Amphibious Assault or Landing. The MAGTF requires reconnaissance Marines early in operations to collect intelligence, control shaping fires, and conduct raids in support of operations.

Without URC, MAGTF is limited to air and surface insertion methods for reconnaissance teams, which adds risk to mission accomplishment depending on enemy detection capabilities.

PROGRAM STATUS

The DPD is currently fielded to the Marine Reconnaissance community and is in the Operations and Support Phase of the Integrated Defense Acquisitions, Technology, and Logistics Life-cycle Management System. The DPD was an AAP and reached Milestone C in February 2005. The current Approved Acquisition Objective (AAO) is 208 systems. The DPD will reach its service life in 2020.

The THSE is currently in the EMD Phase of the Integrated Defense Acquisition, Technology, and Logistics Life-cycle Management System. It reached Milestone B in July 2011 and is planned to be fielded to reconnaissance battalions in FY15.

The current acquisition strategy for THSE is to procure a COTS system. Efforts are also underway to integrate this capability in to the next generation of DPD for better operational suitability and overall cost reduction.

RECEIVING UNITS

- I MEF
- II MEF
- III MEF
- IV MEF

PROCUREMENT PROFILE

The DPD is fully fielded. The THSE is still in the EMD phase and will begin fielding in FY15.

DEVELOPER/MANUFACTURER

Systems Incorporated, Greenport, NY
TACTICAL EXPLOITATION OF NATIONAL CAPABILITIES (TENCAP)

DESCRIPTION
The Tactical Exploitation of National Capabilities (TENCAP) program is an R&D activity designated by the Director of Intelligence (DIRINT) to exploit the current and future tactical potential of national intelligence systems and to integrate these capabilities into operational military decision-making as rapidly as possible.

TENCAP leverages technologies to provide tactical users better access to national data. Additionally, TENCAP helps support a persistent, distributed, and evaluated environment that addresses critical tactical intelligence capability gaps and delivers sustainable solutions to the operating forces and MCSC through rapid delivery of emerging technologies. The TENCAP program includes multiple projects supporting the spectrum of intelligence disciplines.

OPERATIONAL IMPACT
TENCAP ensures emerging national intelligence and C2 capabilities and enhancements reach our tactical users. TENCAP enables new imagery production techniques, wider access to imagery, improved utilization of SIGINT and HUMINT data, national-to-tactical sensor integration, access to intelligence broadcasts, and conducts integration with other C2 systems.

PROGRAM STATUS
Funding for FY14 and FY15 includes the following capabilities:

- imagery analysis tools to support mission planning for amphibious and littoral area operations;
- imagery tools to rapidly identify suitable areas for landing zones to support tilt-rotor and helicopter operations;
- a tool kit to support flight safety in low level flight by indentifying vertical obstructions.

RECEIVING UNITS
- I MEF
- II MEF

DEVELOPER/MANUFACTURER
Various developers are utilized to support TENCAP R&D efforts, to include research labs, academia, and private industry.

REMOTE VIDEO VIEWING TERMINAL (RVVT)

DESCRIPTION
The RVVT allows an operator to view and exploit video and metadata from multiple UAS and manned LITENING pod-equipped aircraft. This program sustains the VideoScout Remote Video Exploitation Terminal (RVET) and Soldier ISR Radio (SIR) 2.5 Man Portable Video Downlink (MPVDL) systems and is developing the next generation of system for operations centers both ashore and afloat.

OPERATIONAL IMPACT
RVVT provides the MAGTF with a more complete view of the battlefield by allowing Marines to view video from various theater and organic ISR assets within the MAGTF area of operations in a compact, portable form. RVVT allows FACs, JTACs, and commanders at the regimental level and below to view real-time video, capture and exploit the data, and receive platform metadata for precision targeting, which increases battlespace awareness and enables the warfighter to characterize and engage threats more effectively. As a need was identified for a more portable VDL system, the SIR 2.5 was fielded to forward deployed units providing them with a lightweight system more suitable for a dismounted environment. The VideoScout Marine Corps Version 3 (MC/3) upgrade will also be fielded to deployed units, and includes Type I encryption to protect the system’s data from enemy exploitation.

PROGRAM STATUS
Funding for FY14 and FY15 includes the following capabilities:

- imagery analysis tools to support mission planning for amphibious and littoral area operations;
- imagery tools to rapidly identify suitable areas for landing zones to support tilt-rotor and helicopter operations;
- a tool kit to support flight safety in low level flight by indentifying vertical obstructions.

RECEIVING UNITS
FACs and JTACs serving in:
- I MEF - III MEF
- Marine Forces Reserve
- various schools within TRNGCMD

PROCUREMENT PROFILE
System fully fielded. Software upgrades to be fielded as appropriate.

DEVELOPER(S)/MANUFACTURER(S)
- L-3 Interstate Electronics, Anaheim, CA
- L-3 Communications Systems West, SLC, UT
CHAPTER 4: ALMANAC
Introduction

The Almanac section provides a brief snapshot of our Corps, and a description of our manpower resources. It is arranged according to appropriate demographics such as Military Occupational Specialty (MOS), age, gender, race, and rank. The Almanac compilation presents a synthesis of demographics, and allows for allocation analysis during the annual budget processes of the U.S. Government and of the U.S. Marine Corps. While the allocation of monies focuses on dollars, this information allows for further refinement within areas requiring assignments according to need of duties or positions. The Almanac provides insight into the resources that our Corps fuses together to create the world’s premier fighting force.
### ACTIVE DUTY OFFICER AGE DISTRIBUTION

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<td>4,505</td>
<td>20.60%</td>
</tr>
<tr>
<td>36-40</td>
<td>4,215</td>
<td>19.30%</td>
</tr>
<tr>
<td>41+</td>
<td>3,851</td>
<td>17.60%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>21,822</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
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### ACTIVE DUTY OFFICER GENDER DISTRIBUTION

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
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<tr>
<td>Female</td>
<td>1,325</td>
<td>6.10%</td>
</tr>
<tr>
<td>Male</td>
<td>20,497</td>
<td>93.90%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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</tr>
</tbody>
</table>

### ACTIVE DUTY OFFICER GRADE DISTRIBUTION

<table>
<thead>
<tr>
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<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO</td>
<td>2,076</td>
<td>9.50%</td>
</tr>
<tr>
<td>2ndLt</td>
<td>2,785</td>
<td>12.80%</td>
</tr>
<tr>
<td>1stLt</td>
<td>3,841</td>
<td>17.60%</td>
</tr>
<tr>
<td>Capt</td>
<td>6,509</td>
<td>29.80%</td>
</tr>
<tr>
<td>Maj</td>
<td>3,915</td>
<td>17.90%</td>
</tr>
<tr>
<td>LtCol</td>
<td>1,915</td>
<td>8.80%</td>
</tr>
<tr>
<td>Col</td>
<td>693</td>
<td>3.20%</td>
</tr>
<tr>
<td>Gen</td>
<td>88</td>
<td>0.40%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>21,822</strong></td>
<td><strong>100%</strong></td>
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**ACTIVE DUTY OFFICER GRADE BY GENDER**

<table>
<thead>
<tr>
<th>Rank</th>
<th># Male</th>
<th>% Male</th>
<th># Female</th>
<th>% Female</th>
<th>Total</th>
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<tr>
<td>WO1</td>
<td>248</td>
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<td>10</td>
<td>.80%</td>
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<tr>
<td>CWO2</td>
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<td>888</td>
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<tr>
<td>CWO3</td>
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<td>545</td>
</tr>
<tr>
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<td>11</td>
<td>.80%</td>
<td>282</td>
</tr>
<tr>
<td>CWO5</td>
<td>96</td>
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<td>7</td>
<td>.50%</td>
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<tr>
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<td>12.30%</td>
<td>259</td>
<td>19.50%</td>
<td>2,785</td>
</tr>
<tr>
<td>1stLt</td>
<td>3,549</td>
<td>17.30%</td>
<td>292</td>
<td>22.00%</td>
<td>3,841</td>
</tr>
<tr>
<td>Capt</td>
<td>6,091</td>
<td>29.70%</td>
<td>418</td>
<td>31.60%</td>
<td>6,509</td>
</tr>
<tr>
<td>Maj</td>
<td>3,726</td>
<td>18.20%</td>
<td>189</td>
<td>14.30%</td>
<td>3,915</td>
</tr>
<tr>
<td>LtCol</td>
<td>1,876</td>
<td>9.20%</td>
<td>39</td>
<td>2.90%</td>
<td>1,915</td>
</tr>
<tr>
<td>Col</td>
<td>672</td>
<td>3.30%</td>
<td>21</td>
<td>1.60%</td>
<td>693</td>
</tr>
<tr>
<td>Gen</td>
<td>87</td>
<td>0.40%</td>
<td>1</td>
<td>.10%</td>
<td>88</td>
</tr>
<tr>
<td>Total</td>
<td>20,497</td>
<td>100%</td>
<td>1,325</td>
<td>100%</td>
<td>21,822</td>
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**ACTIVE DUTY OFFICER MARINE FAMILIES**

<table>
<thead>
<tr>
<th>Civilian Spouses</th>
<th>Military Spouses</th>
<th>Guard/Reserve Spouses</th>
<th>Children/Other Dependents</th>
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</thead>
<tbody>
<tr>
<td>14,046</td>
<td>888</td>
<td>62</td>
<td>23,346</td>
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**ACTIVE DUTY OFFICER RACIAL AND GENDER DISTRIBUTION**

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<thead>
<tr>
<th>Rank</th>
<th>Black Female</th>
<th>Black Male</th>
<th>Hispanic Female</th>
<th>Hispanic Male</th>
<th>White Female</th>
<th>White Male</th>
<th>Other Female</th>
<th>Other Male</th>
<th>Total</th>
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<tbody>
<tr>
<td>WO/CWO</td>
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<td>237</td>
<td>21</td>
<td>214</td>
<td>59</td>
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<td>6</td>
<td>138</td>
<td>2,076</td>
</tr>
<tr>
<td>2ndLt</td>
<td>19</td>
<td>89</td>
<td>20</td>
<td>119</td>
<td>163</td>
<td>1,964</td>
<td>57</td>
<td>354</td>
<td>2,785</td>
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<tr>
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<td>134</td>
<td>22</td>
<td>179</td>
<td>234</td>
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<td>27</td>
<td>263</td>
<td>3,841</td>
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<td>Capt</td>
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<td>276</td>
<td>40</td>
<td>353</td>
<td>321</td>
<td>5,082</td>
<td>31</td>
<td>380</td>
<td>6,509</td>
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<tr>
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<td>223</td>
<td>128</td>
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<td>22</td>
<td>215</td>
<td>3,915</td>
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<td>30</td>
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<td>119</td>
<td>1,167</td>
<td>953</td>
<td>16,723</td>
<td>149</td>
<td>1,445</td>
<td>21,822</td>
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### ACTIVE DUTY OFFICER OCCUPATIONAL FIELD DISTRIBUTION

<table>
<thead>
<tr>
<th>MOS Code</th>
<th>Description</th>
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<th>Male Officer</th>
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<tbody>
<tr>
<td>01</td>
<td>Personnel &amp; Administration</td>
<td>188</td>
<td>563</td>
<td>751</td>
</tr>
<tr>
<td>02</td>
<td>Intelligence</td>
<td>82</td>
<td>1,335</td>
<td>1,417</td>
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<tr>
<td>03</td>
<td>Infantry</td>
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<td>2,590</td>
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<tr>
<td>04</td>
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<td>1,765</td>
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<td>Communications</td>
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<td>1,188</td>
<td>1,270</td>
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<td>1,077</td>
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<td>09</td>
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<td>3</td>
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<td>11</td>
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<td>695</td>
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<td>Tank &amp; AAV</td>
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<td>374</td>
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<td>21</td>
<td>Ordnance</td>
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<td>139</td>
<td>142</td>
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<tr>
<td>23</td>
<td>Ammunition &amp; EOD</td>
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<td>138</td>
<td>140</td>
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<td>26</td>
<td>Signals Intelligence</td>
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<td>39</td>
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<td>28</td>
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<td>105</td>
<td>109</td>
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<tr>
<td>30</td>
<td>Supply Administration &amp; Operations</td>
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<td>758</td>
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<td>26</td>
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<td>33</td>
<td>Food Service</td>
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<tr>
<td>34</td>
<td>Financial Management</td>
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<td>35</td>
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<td>102</td>
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<td>161</td>
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<td>44</td>
<td>Legal Services</td>
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<td>608</td>
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<td>21</td>
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<td>48</td>
<td>Recruiting &amp; Career Planning</td>
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<td>15</td>
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<td>Music</td>
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<td>23</td>
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<td>120</td>
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<td>Military Police and Corrections</td>
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<td>297</td>
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<td>59</td>
<td>Electronics Maintenance</td>
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<td>75</td>
<td>76</td>
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<td>473</td>
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<td>133</td>
</tr>
<tr>
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<td>Aviation Ordnance</td>
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<td>91</td>
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<td>66</td>
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<td>68</td>
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<tr>
<td>70</td>
<td>Airfield Services</td>
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<td>Navigation Officer</td>
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<td>12</td>
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<tr>
<td>75</td>
<td>Pilot/NFOs</td>
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<td>5,365</td>
<td>5,559</td>
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<td>Miscellaneous Requirements</td>
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<td>1,457</td>
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<td></td>
<td><strong>1,325</strong></td>
<td><strong>20,497</strong></td>
<td><strong>21,822</strong></td>
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### ACTIVE DUTY OFFICER ACCESSIONS

<table>
<thead>
<tr>
<th>Type</th>
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<th>Percent</th>
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<td>MECEP/ECP/MCP</td>
<td>218</td>
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</tr>
<tr>
<td>NROTC</td>
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<td>Officer Candidate Course</td>
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<tr>
<td>Platoon Leader Course</td>
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<tr>
<td>Military Academies</td>
<td>267</td>
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<tr>
<td>Warrant Officer Program</td>
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<tr>
<td>Other</td>
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<td>0.70%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>1,922</strong></td>
<td><strong>100%</strong></td>
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### ACTIVE DUTY ENLISTED AGE DISTRIBUTION

<table>
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<tr>
<td>20</td>
<td>18,724</td>
<td>10.40%</td>
</tr>
<tr>
<td>21</td>
<td>22,921</td>
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</tr>
<tr>
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<td>19,441</td>
<td>10.80%</td>
</tr>
<tr>
<td>23</td>
<td>14,322</td>
<td>8.00%</td>
</tr>
<tr>
<td>24</td>
<td>11,950</td>
<td>6.70%</td>
</tr>
<tr>
<td>25</td>
<td>11,199</td>
<td>6.20%</td>
</tr>
<tr>
<td>26-30</td>
<td>31,368</td>
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</tr>
<tr>
<td>31-35</td>
<td>13,577</td>
<td>7.60%</td>
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<tr>
<td>36-40</td>
<td>8,089</td>
<td>4.50%</td>
</tr>
<tr>
<td>41+</td>
<td>3,496</td>
<td>2.00%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179,335</strong></td>
<td><strong>100%</strong></td>
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</table>
## Active Duty Enlisted Grade Distribution

<table>
<thead>
<tr>
<th>Rank</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pvt</td>
<td>12,864</td>
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</tr>
<tr>
<td>PFC</td>
<td>20,361</td>
<td>11.40%</td>
</tr>
<tr>
<td>LCpl</td>
<td>46,866</td>
<td>26.10%</td>
</tr>
<tr>
<td>Cpl</td>
<td>37,409</td>
<td>20.90%</td>
</tr>
<tr>
<td>Sgt</td>
<td>30,047</td>
<td>16.70%</td>
</tr>
<tr>
<td>SSgt</td>
<td>16,916</td>
<td>9.40%</td>
</tr>
<tr>
<td>GySgt</td>
<td>9,245</td>
<td>5.20%</td>
</tr>
<tr>
<td>1stSgt/MSgt</td>
<td>4,026</td>
<td>2.20%</td>
</tr>
<tr>
<td>SgtMaj/MGySgt</td>
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<td>0.90%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179,335</strong></td>
<td><strong>100%</strong></td>
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</table>

## Active Duty Enlisted Marine Families

<table>
<thead>
<tr>
<th>Civilian Spouses</th>
<th>Military Spouses</th>
<th>Guard/Reserve Spouses</th>
<th>Children/Other Dependents</th>
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</thead>
<tbody>
<tr>
<td>75,757</td>
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<td>441</td>
<td>86,971</td>
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## Active Duty Enlisted Grade by Gender

<table>
<thead>
<tr>
<th>Rank</th>
<th># Male</th>
<th>% Male</th>
<th># Female</th>
<th>% Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pvt</td>
<td>12,091</td>
<td>7.20%</td>
<td>773</td>
<td>6.30%</td>
<td>12,864</td>
</tr>
<tr>
<td>PFC</td>
<td>18,681</td>
<td>11.20%</td>
<td>1,680</td>
<td>13.60%</td>
<td>20,361</td>
</tr>
<tr>
<td>LCpl</td>
<td>43,422</td>
<td>26.00%</td>
<td>3,444</td>
<td>27.90%</td>
<td>46,866</td>
</tr>
<tr>
<td>Cpl</td>
<td>34,836</td>
<td>20.90%</td>
<td>2,573</td>
<td>20.80%</td>
<td>37,409</td>
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<tr>
<td>Sgt</td>
<td>27,998</td>
<td>16.80%</td>
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<td>16.60%</td>
<td>30,047</td>
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<td>535</td>
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<td>1stSgt/MSgt</td>
<td>3,819</td>
<td>2.30%</td>
<td>207</td>
<td>1.70%</td>
<td>4,026</td>
</tr>
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### ACTIVEDUTYENLISTEDGENDERDISTRIBUTION

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### ACTIVEDUTYENLISTEDRACIALANDGENDERDISTRIBUTION

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### RESERVE OFFICER AGE DISTRIBUTION

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### RESERVE OFFICER GRADE DISTRIBUTION

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### Reserve Enlisted Age Distribution

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<th>Age</th>
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<td>17-18</td>
<td>755</td>
<td>1.95%</td>
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<tr>
<td>19</td>
<td>2,681</td>
<td>6.91%</td>
</tr>
<tr>
<td>20</td>
<td>3,810</td>
<td>9.82%</td>
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<tr>
<td>21</td>
<td>4,269</td>
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<tr>
<td>22</td>
<td>4,127</td>
<td>10.60%</td>
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<tr>
<td>23</td>
<td>4,186</td>
<td>10.79%</td>
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<tr>
<td>24</td>
<td>3,922</td>
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<tr>
<td>25</td>
<td>3,177</td>
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<td>26-30</td>
<td>7,465</td>
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<td>31-35</td>
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<td>36-40</td>
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<td>2.85%</td>
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<td>41-45</td>
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<tr>
<td>46-50</td>
<td>227</td>
<td>0.59%</td>
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<tr>
<td>51-55</td>
<td>52</td>
<td>0.13%</td>
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<tr>
<td>56-60</td>
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<tr>
<td>60+</td>
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<td>Total</td>
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### Reserve Enlisted Grade Distribution

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<td>Cpl</td>
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<td>SSgt</td>
<td>1,988</td>
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<td>GySgt</td>
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<tr>
<td>1stSgt/MSgt</td>
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<tr>
<td>SgtMaj/MGySgt</td>
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<td>0.52%</td>
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<td>Total</td>
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## Reserve Enlisted Occupational Field Distribution

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<td>46</td>
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<td>48</td>
<td>Recruiting &amp; Career Planning</td>
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<td>934</td>
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<td>393</td>
<td>432</td>
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<td>61</td>
<td>Aircraft Maintenance (Rotary Wing)</td>
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<td>335</td>
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<td>62</td>
<td>Aircraft Maintenance (Fixed Wing)</td>
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<td>Organizational Avionics Maintenance</td>
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<td>212</td>
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<td>64</td>
<td>Intermediate Avionics Maintenance</td>
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<td>65</td>
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<td>192</td>
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<tr>
<td>66</td>
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<td>198</td>
<td>240</td>
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<td>68</td>
<td>Meteorology &amp; Oceanography</td>
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<td>30</td>
<td>34</td>
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<td>70</td>
<td>Airfield Services</td>
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<td>337</td>
<td>365</td>
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<td>72</td>
<td>Air Control, Support, &amp; Anti-Air</td>
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<td>162</td>
<td>177</td>
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<tr>
<td>73</td>
<td>Navigation Officer</td>
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<tr>
<td>89</td>
<td>Sgt/Maj/1stsgt</td>
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<td>217</td>
<td>226</td>
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<tr>
<td>99</td>
<td>Miscellaneous Requirements</td>
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**Total**  
1,636 | 37,168 | 38,804
CHAPTER 5: RESOURCES

Photo Courtesy of Headquarters, U.S. Marine Corps
Introduction

The Resource section provides a brief snapshot of our Corps’ equipment, age, and forecasted lifecycles. This data also provides a snapshot of budgetary allocation for further synthesis of global operations funding, procurement cycles, personnel force structure, operational maintenance, investments, and housing. The decisions made in the budget process affect the Marine Corps as a whole, and our ability to remain ready to respond at the right time, in the right place, and with the right resources, which ultimately affects individual Americans. Many budget decisions have worldwide significance.

Resources are designed to keep the Marine Corps alert to shifting financial needs, in order to remain the best prepared to face down unexpected threats that arise globally. As such, the overview provides further detail during decision analysis in some of the more important budget concepts. Resources also include summary dollar amounts to illustrate major areas of concentration necessary for operational support.
CHAPTER 5: RESOURCES

FISCAL RESOURCE OVERVIEW

FISCAL LANDSCAPE
CHAPTER 5: RESOURCES

TOTAL BASELINE TOTAL OBLIGATION AUTHORITY (TOA)

FISCAL APPROPRIATIONS
CHAPTER 5: RESOURCES

PROCUREMENT SUMMARY

GROUND EQUIPMENT AGE
AIRCRAFT EQUIPMENT AGE

SERVICE LIFE DESCRIPTIONS:

» Once aircraft reach their service life, the Service Life Assessment Program (SLAP) is initiated to ascertain the material condition of the aircraft.

» The Service Life Extension Plan (SLEP) will extend service life where applicable.

Source: NAVAIR 6.0
ACRONYM GLOSSARY
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Glossary</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAO</td>
<td>Approved Acquisition Objective</td>
</tr>
<tr>
<td>AAV</td>
<td>Assault Amphibious Vehicle</td>
</tr>
<tr>
<td>ABV</td>
<td>Assault Breacher Vehicle</td>
</tr>
<tr>
<td>AC</td>
<td>Active Component</td>
</tr>
<tr>
<td>AC2</td>
<td>Aviation Command and Control System</td>
</tr>
<tr>
<td>ACA</td>
<td>All Community Approach</td>
</tr>
<tr>
<td>ACAT</td>
<td>Acquisition Categories</td>
</tr>
<tr>
<td>ACE</td>
<td>Aviation Combat Element</td>
</tr>
<tr>
<td>ACO</td>
<td>Airspace Control Order</td>
</tr>
<tr>
<td>ACV</td>
<td>Amphibious Combat Vehicle</td>
</tr>
<tr>
<td>AD</td>
<td>Active Duty</td>
</tr>
<tr>
<td>ADAL</td>
<td>Authorized Dental Allowance List</td>
</tr>
<tr>
<td>AE</td>
<td>Assault Echelon</td>
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<tr>
<td>AFATDS</td>
<td>Advanced Field Artillery Tactical Data System</td>
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<tr>
<td>AFCYBER</td>
<td>Air Force Cyberspace Command</td>
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<tr>
<td>AFRICOM</td>
<td>U.S. Africa Command</td>
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<tr>
<td>AIM</td>
<td>Advanced Imagery Module</td>
</tr>
<tr>
<td>AIS</td>
<td>Automated Information System</td>
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<tr>
<td>AMAL</td>
<td>Authorized Medical Allowance List</td>
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<tr>
<td>AMRAAM</td>
<td>Advanced Medium Range Air to Air Missile</td>
</tr>
<tr>
<td>AOR</td>
<td>Area of Responsibility</td>
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<tr>
<td>APC</td>
<td>Armor Personnel Carrier</td>
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<td>ARCYBER</td>
<td>Army Cyberspace Command</td>
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<td>ARDEC</td>
<td>Armament Research Development and Engineering Center</td>
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<tr>
<td>ARFF</td>
<td>Aircraft Rescue and Fire Fighting</td>
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<tr>
<td>ARG</td>
<td>Amphibious Readiness Group</td>
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<td>ASD(NII)</td>
<td>Assistant Secretary of Defense for Networks and Information Integration</td>
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<tr>
<td>ASE</td>
<td>Aircraft Survivability Equipment</td>
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<td>ASN (RDA)</td>
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<td>Air Tasking Order</td>
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<td>Armored Vehicle Launched Bridge</td>
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<td>U.S. Central Command</td>
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<td>CERP</td>
<td>Commander's Energy Readiness Program</td>
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<td>Commanding General, Fleet Marine Forces Atlantic</td>
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<td>Commanding General, Training and Education Command</td>
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<td>High Bandwidth Special Intelligence Palletized Terminal</td>
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<tr>
<td>HBSI–TT</td>
<td>High Bandwidth Special Intelligence Team Terminal</td>
</tr>
<tr>
<td>HIMARS</td>
<td>High Mobility Artillery Rocket System</td>
</tr>
<tr>
<td>HMLA</td>
<td>Marine Light Attack Helicopter Squadrons</td>
</tr>
<tr>
<td>HMMWV</td>
<td>High Mobility Multi-Purpose Wheeled Vehicle</td>
</tr>
<tr>
<td>HQMC</td>
<td>Headquarters, U.S. Marine Corps</td>
</tr>
<tr>
<td>HSMI</td>
<td>HMMWV Sustainment and Modification Initiative</td>
</tr>
<tr>
<td>IA</td>
<td>Information Assurance</td>
</tr>
<tr>
<td>IAS</td>
<td>Intelligence Analysis System</td>
</tr>
<tr>
<td>IC</td>
<td>Intelligence Community</td>
</tr>
<tr>
<td>ICD</td>
<td>Initial Capabilities Document</td>
</tr>
<tr>
<td>IDF</td>
<td>Indirect Fire</td>
</tr>
<tr>
<td>IED</td>
<td>Improvised Explosive Device</td>
</tr>
<tr>
<td>IMM</td>
<td>Individual Marine Management</td>
</tr>
<tr>
<td>INLS</td>
<td>Improved Navy Lighterage System</td>
</tr>
</tbody>
</table>

**G**  
G/ATOR: Ground/Air Task Oriented Radar  
GCC: Geographic Combatant Command  
GCCDR: Geographic Combatant Commander  
GCCS-TCO: Global Command and Control System-Tactical Combat Operations  
GCE: Ground Combat Element  

**F**  
FACE: Future Airborne Capability Environment  
FAFO: Florida Assembly and Flight Operations  
FDC: Fire Direction Center  
FFME: Family of Field Medical Equipment  
FFP: Firm Fixed Price  
FID: Foreign Internal Defense  
FLIR: Forward-Looking Infrared  
FOC: Full Operational Capability  
FO: Forward Observer  
FoS: Family of Systems  
FOTS: Follow on to Shoulder Launched Multi-Purpose Assault Weapon  
FoV: Family of Vehicles  
FRP: Full-Rate Production  
FRS: Fleet Replacement Squadron  
FSM: Facilities Sustainment Model  
FTAS: Family of Target Acquisition Systems  
FYDP: Full Year Defense Plan  

**H**  
HA/DR: Humanitarian Assistance/Disaster Relief  
HAWK: Hercules Airborne Weapons Kit  
HBSI-PT: High Bandwidth Special Intelligence Palletized Terminal  
HBSI–TT: High Bandwidth Special Intelligence Team Terminal  
HIMARS: High Mobility Artillery Rocket System  
HMLA: Marine Light Attack Helicopter Squadrons  
HMMWV: High Mobility Multi-Purpose Wheeled Vehicle  
HQMC: Headquarters, U.S. Marine Corps  
HSMI: HMMWV Sustainment and Modification Initiative  

**I**  
IA: Information Assurance  
IAS: Intelligence Analysis System  
IC: Intelligence Community  
ICD: Initial Capabilities Document  
IDF: Indirect Fire  
IED: Improvised Explosive Device  
IMM: Individual Marine Management  
INLS: Improved Navy Lighterage System
<table>
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<tr>
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<tbody>
<tr>
<td>ACRO NYM</td>
<td>ACRO NYM GLOSSARY</td>
</tr>
<tr>
<td>IO</td>
<td>Information Operations</td>
</tr>
<tr>
<td>IOC</td>
<td>Initial Operational Capability</td>
</tr>
<tr>
<td>ISR</td>
<td>Intelligence, Surveillance, and Reconnaissance</td>
</tr>
<tr>
<td>IT</td>
<td>Information Technology</td>
</tr>
<tr>
<td>ITV</td>
<td>Internally Transportable Vehicle</td>
</tr>
<tr>
<td>IVC</td>
<td>Intra-Vehicle Communications</td>
</tr>
<tr>
<td>IW</td>
<td>Irregular Warfare</td>
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<tr>
<td>IWESC</td>
<td>Irregular Warfare Executive Steering Committee</td>
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<tr>
<td>IWL</td>
<td>Weapon Launch Acceptability Region</td>
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**J**

<table>
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<tr>
<th>Abbreviation</th>
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<tbody>
<tr>
<td>JBC-P</td>
<td>Joint Battle Command - Platform</td>
</tr>
<tr>
<td>JDAM</td>
<td>Joint Direct Attack Munitions</td>
</tr>
<tr>
<td>JHSV</td>
<td>Joint High Speed Vessel</td>
</tr>
<tr>
<td>JIM</td>
<td>Joint, Interagency, and Multi-National</td>
</tr>
<tr>
<td>JLTV</td>
<td>Joint Light Tactical Vehicle</td>
</tr>
<tr>
<td>JLVCE</td>
<td>Joint Live, Virtual, and Constructive</td>
</tr>
<tr>
<td>JNGLD</td>
<td>Joint Non-Lethal Weapons Directorate</td>
</tr>
<tr>
<td>JNTC</td>
<td>Joint National Training Capability</td>
</tr>
<tr>
<td>JOA</td>
<td>Joint Operating Area</td>
</tr>
<tr>
<td>JP</td>
<td>Joint Publication</td>
</tr>
<tr>
<td>JS</td>
<td>Joint Staff</td>
</tr>
<tr>
<td>JSF</td>
<td>Joint Strike Fighter</td>
</tr>
<tr>
<td>JTEN</td>
<td>Joint Training Enterprise Network</td>
</tr>
<tr>
<td>JTF</td>
<td>Joint Task Force</td>
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<tr>
<td>JTRS</td>
<td>Joint Tactical Radio System</td>
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**L**

<table>
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<tr>
<td>LAV</td>
<td>Light Armored Vehicle</td>
</tr>
<tr>
<td>LCAC</td>
<td>Landing Craft Air Cushions</td>
</tr>
<tr>
<td>LCE</td>
<td>Logistics Combat Element</td>
</tr>
<tr>
<td>LCMR</td>
<td>Lightweight Counter Mortar Radar</td>
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**M**

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<td>Modeling and Simulations</td>
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<td>Marine Air Command and Control System</td>
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<td>MACG</td>
<td>Marine Air Control Groups</td>
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<tr>
<td>MAGID</td>
<td>Magnetic Detector</td>
</tr>
<tr>
<td>MAGTF</td>
<td>Marine Air Ground Task Force</td>
</tr>
<tr>
<td>MAGTFTP</td>
<td>Marine Air Ground Task Force Training Program</td>
</tr>
<tr>
<td>MAIS</td>
<td>Major Automated Information System</td>
</tr>
<tr>
<td>MAL-EIT</td>
<td>Marine Aviation Logistics - Enterprise Information Technology</td>
</tr>
<tr>
<td>MALS</td>
<td>Marine Aviation Logistics Squadrons</td>
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<tr>
<td>MALSP</td>
<td>Marine Aviation Logistics Support Program</td>
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<tr>
<td>MAP</td>
<td>Marine Expeditionary Unit Augmentation Program</td>
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<tr>
<td>MARFOR</td>
<td>U.S. Marine Corps and Regional Marine Force</td>
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<tr>
<td>Acronym</td>
<td>Glossary</td>
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<tr>
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<tr>
<td>MARFORCOM</td>
<td>U.S. Marine Forces Command</td>
</tr>
<tr>
<td>MARFORCYBER</td>
<td>U.S. Marine Corps Forces, Cyberspace Command</td>
</tr>
<tr>
<td>MARFORNORTH</td>
<td>U.S. Marine Corps Forces Northern Command</td>
</tr>
<tr>
<td>MARFORPAC</td>
<td>U.S. Marine Corps Forces, Pacific</td>
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<tr>
<td>MARFORRES</td>
<td>U.S. Marine Corps Forces, Reserve</td>
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<tr>
<td>MARFORSOC</td>
<td>U.S. Marine Corps Forces, Special Operations Command</td>
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<tr>
<td>MAS</td>
<td>MTVR Armor System</td>
</tr>
<tr>
<td>MBT</td>
<td>Main Battle Tank</td>
</tr>
<tr>
<td>MCAMP</td>
<td>Marine Corps Air Mission Planner</td>
</tr>
<tr>
<td>MCB</td>
<td>Marine Corps Base</td>
</tr>
<tr>
<td>MCDLP</td>
<td>Marine Corps Distance Learning Program</td>
</tr>
<tr>
<td>MCEITS</td>
<td>Marine Corps Enterprise IT Services</td>
</tr>
<tr>
<td>MCEN</td>
<td>Marine Corps Enterprise Network</td>
</tr>
<tr>
<td>MCFPPS</td>
<td>Marine Corps Facilities Planning and Programming System</td>
</tr>
<tr>
<td>MCIA</td>
<td>Marine Corps Intelligence Activity</td>
</tr>
<tr>
<td>MCICOM</td>
<td>Marine Corps Installations Command</td>
</tr>
<tr>
<td>MCIENT</td>
<td>Marine Corps Information Enterprise</td>
</tr>
<tr>
<td>MCISR-E</td>
<td>Marine Corps Intelligence, Surveillance, and Reconnaissance Enterprise</td>
</tr>
<tr>
<td>MCITE</td>
<td>Marine Corps Information Technology Environment</td>
</tr>
<tr>
<td>MCLOG</td>
<td>Marine Corps Logistics Operations Group</td>
</tr>
<tr>
<td>MCNOSC</td>
<td>Marine Corps Network Operations and Security Center</td>
</tr>
<tr>
<td>MCOIS</td>
<td>Marine Corps Operational Intelligence Support</td>
</tr>
<tr>
<td>MCOTEA</td>
<td>Marine Corps Operational Test and Evaluation Activity</td>
</tr>
<tr>
<td>MCPP</td>
<td>Marine Corps Pre-Positioning Program</td>
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<tr>
<td>MCRC</td>
<td>Marine Corps Recruiting Command</td>
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<tr>
<td>MCRJSS</td>
<td>Marine Corps Recruiting Information Support System</td>
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<tr>
<td>MCRP</td>
<td>Marine Corps Reference Publication</td>
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<tr>
<td>MCSB</td>
<td>Marine Corps Cryptologic Support Battalion</td>
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<tr>
<td>MCSC</td>
<td>Marine Corps Systems Command</td>
</tr>
<tr>
<td>MCSCG</td>
<td>Marine Corps Security Cooperation Group</td>
</tr>
<tr>
<td>MCTIM</td>
<td>Marine Corps Training Information Management System</td>
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<td>MCTOG</td>
<td>Marine Corps Tactics and Operations Group</td>
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<tr>
<td>MCTUAS</td>
<td>Marine Corps Tactical UAS</td>
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<tr>
<td>MCU</td>
<td>Marine Corps University</td>
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<tr>
<td>MCWAR</td>
<td>Marine Corps War College</td>
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<tr>
<td>MDA</td>
<td>Milestone Decision Authority</td>
</tr>
<tr>
<td>MDD</td>
<td>Material Development Decision</td>
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<tr>
<td>MDMC</td>
<td>Marine Depot Maintenance Command</td>
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<tr>
<td>MEB</td>
<td>Marine Expeditionary Brigade</td>
</tr>
<tr>
<td>MEF</td>
<td>Marine Expeditionary Force</td>
</tr>
<tr>
<td>MERS</td>
<td>Marine Expeditionary Rifle Squad</td>
</tr>
<tr>
<td>MET</td>
<td>Mission Essential Task</td>
</tr>
<tr>
<td>MEU</td>
<td>Marine Expeditionary Unit</td>
</tr>
<tr>
<td>MFOM</td>
<td>Multiple-Launch Rocket System Family of Munitions</td>
</tr>
<tr>
<td>MIC</td>
<td>Marine Expeditionary Force Intelligence Center</td>
</tr>
<tr>
<td>MIR</td>
<td>Multi-Sensor Imagery Reconnaissance</td>
</tr>
<tr>
<td>MISO</td>
<td>Military Information Support Operations</td>
</tr>
<tr>
<td>MLG</td>
<td>Marine Logistics Group</td>
</tr>
<tr>
<td>MLI</td>
<td>MAGTF Logistics Integration</td>
</tr>
<tr>
<td>MOS</td>
<td>Military Occupational Specialty</td>
</tr>
<tr>
<td>MOSLS</td>
<td>Minimum Operating Strip Lighting System</td>
</tr>
<tr>
<td>MPF</td>
<td>Maritime Pre-Positioning Force</td>
</tr>
<tr>
<td>MPM-NLWS</td>
<td>Mission Payload Module - Non-Lethal Weapon System</td>
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<td>MPS</td>
<td>Maritime Pre-Positioning Ships</td>
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<tr>
<td>MPSRON</td>
<td>Maritime Pre-Positioning Ship Squadrons</td>
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<tr>
<td>MR2V</td>
<td>Maintenance Release 2 Virtualized</td>
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<tr>
<td>MRAP</td>
<td>Mine Resistant, Ambush Protected</td>
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<td>MRT-B</td>
<td>Military Ruggedized Tablet-B</td>
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<tr>
<td>MS</td>
<td>Milestone</td>
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ACRONYM GLOSSARY

MSIDS: Marine Air Ground Task Force Secondary Imagery Dissemination System
MSOB: Marine Special Operations Battalion
MSOC: Marine Special Operations Companies
MSOR: Marine Special Operations Regiment
MSOS: Marine Special Operations School
MSOSG: Marine Special Operations Support Group
MSOT: Marine Special Operations Team
MTS: Mobile Tactical Shelter
MTVR: Medium Tactical Vehicle Replacement

N
NAVAIR: U.S. Naval Air Systems Command
NDI: Non-Developmental Item
NEPA: National Environmental Policy Act
NETOPS: Network Operations
NLI: Naval Logistics Integration
NL-IDFM: Non-Lethal Indirect Fire Munition
NMMC: National Museum of the Marine Corps
NORTHCOM: U.S. Northern Command
NRL: Naval Research Laboratory
NROTC: Naval Reserve Officer Training Corps
NRT: Near Real Time
NSS: National Security Strategy
NSWC: Naval Surface Warfare Center
NTV: Non-Tactical Vehicles and Equipment
NVD: Night Vision Devices

O
OCC: Officer Candidates Class
OCO: Offensive Cyberspace Operations
OEF: Operation Enduring Freedom
OFP: Operational Flight Program
OIS: Ocular Interruption System
OODA: Observation, Orientation, Decision, and Action
OPCON: Operational Control
OPFOR: Operational
OPR: Office of Primary Responsibility
OSD: Office of the Secretary of Defense
OSO: Officer Selection Officer
OSS: Officer Selection System
OT&E: Operational Test and Evaluation
OTTP: Operations and Tactics Training Program

P
PACOM: U.S. Pacific Command
PDSS: Post-Deployment Software Support
PEG: Power Equipment Group
PERM: Precision Extended Range Munition
PLC: Platoon Leaders Class
PME: Professional Military Education
PSR: Prior Service Recruiting
PTP: Pre-Deployment Training Program

R
RAM/RS: Reliability, Availability, Maintainability/Rebuild to Standard
RAWS: Remote Analysis Workstation
RC: Reserve Component
RCLF: Regional, Culture, and Language Familiarization
REG: Radar Equipment Group
RM/T: Range Modernization/Transformation
ROMO: Range of Military Operations
RPDA: Ruggedized Personal Digital Assistant
RREP: Radio Reconnaissance Equipment Program
RSI: Risk of Significant Injury
RSS: Recruiting Sub-Station
RSSC: Reserve Senior Staff Course

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<thead>
<tr>
<th>ACROnym</th>
<th>Glossary</th>
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<tbody>
<tr>
<td>S&amp;T</td>
<td>Science and Technology</td>
</tr>
<tr>
<td>SATCOM</td>
<td>Satellite Communication</td>
</tr>
<tr>
<td>SAW</td>
<td>School of Advanced Warfighting</td>
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<tr>
<td>SC</td>
<td>Security Cooperation</td>
</tr>
<tr>
<td>SCI COMMS</td>
<td>Sensitive Compartmented Information Communications</td>
</tr>
<tr>
<td>SCIK</td>
<td>SCI Kit</td>
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<tr>
<td>SCMR</td>
<td>Strategic Choices and Management Review</td>
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<tr>
<td>SEO</td>
<td>System Enterprise Office</td>
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<td>SEV</td>
<td>Student Evaluation</td>
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<td>SFA</td>
<td>Special Force Assistance</td>
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<td>SHORAD</td>
<td>Short Range Air Defense</td>
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<td>SIGINT</td>
<td>Signals Intelligence</td>
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<td>SIPRNET</td>
<td>Secret Internet Protocol Router Network</td>
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<td>SITE</td>
<td>Squad Immersive Training Environment</td>
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<tr>
<td>SLATE</td>
<td>STRIKELINK Ancillary Equipment</td>
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<td>SLEP</td>
<td>Service Life Extension Program</td>
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<tr>
<td>SLS</td>
<td>Sustainment Lighting System</td>
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<td>SMAW</td>
<td>Shoulder Launched Multi-Purpose Assault Weapon</td>
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<td>SMG</td>
<td>Sensor Monitoring Group</td>
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<td>SMI</td>
<td>Sustainment Modification Initiative</td>
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<tr>
<td>SNCO</td>
<td>Senior Non-Commissioned Officer</td>
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<td>SNCOIC</td>
<td>Staff Non-Commissioned Officer in Charge</td>
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<td>SOCOM</td>
<td>Special Operations Command</td>
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<td>SOF</td>
<td>Special Operations Forces</td>
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<td>SOTF</td>
<td>Special Operations Task Force</td>
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<td>SOUTHCOM</td>
<td>U.S. Southern Command</td>
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<td>SPACES</td>
<td>Solar Portable Alternative Communications Energy System</td>
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<td>SPMAGTF</td>
<td>Special Purpose Marine Air Ground Task Force</td>
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<tr>
<td>SR</td>
<td>Special Reconnaissance</td>
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<tr>
<td>SSC</td>
<td>Ship to Shore Connector</td>
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<td>SST</td>
<td>SIGINT Support Teams</td>
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<td>STOVL</td>
<td>Short Take-Off Vertical Landing</td>
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<td>STRATCOM</td>
<td>U.S. Strategic Command</td>
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<td>STS</td>
<td>Squad Thermal System</td>
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<td>SuITE</td>
<td>Small Unit Integrated Training Environment</td>
</tr>
<tr>
<td>T&amp;R</td>
<td>Training and Readiness</td>
</tr>
<tr>
<td>TACC</td>
<td>Tactical Air Command Center</td>
</tr>
<tr>
<td>TACON</td>
<td>Tactical Control</td>
</tr>
<tr>
<td>TBMCS</td>
<td>Theater Battle Management Core System</td>
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<tr>
<td>TBS</td>
<td>The Basic School</td>
</tr>
<tr>
<td>TCAC</td>
<td>Technical Control and Analysis Center</td>
</tr>
<tr>
<td>TCDL</td>
<td>Tactical Common Data Link</td>
</tr>
<tr>
<td>TDS</td>
<td>Tactical Data Systems</td>
</tr>
<tr>
<td>THS</td>
<td>Target Hand-Off System</td>
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<tr>
<td>TMIC</td>
<td>Tactical MAGTF Integration Course</td>
</tr>
<tr>
<td>TPCS</td>
<td>Team Portable Collection System</td>
</tr>
<tr>
<td>TPS</td>
<td>Target Processing Set</td>
</tr>
<tr>
<td>TRG</td>
<td>Translational Research Group</td>
</tr>
<tr>
<td>TRHS</td>
<td>Tray Heating Rotation System</td>
</tr>
<tr>
<td>TRL</td>
<td>Technology Readiness Level</td>
</tr>
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<td>TRSS</td>
<td>Tactical Remote Sensor Systems</td>
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<td>Technical Surveillance Countermeasures</td>
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<td>TSCS</td>
<td>Tactical Signals Intelligence Collection System</td>
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<td>TWS</td>
<td>Transportable Workstation</td>
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<td>UAS</td>
<td>Unmanned Aircraft Systems</td>
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<td>USASOC</td>
<td>U.S. Army Special Operations Command</td>
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<tr>
<td>USFFC</td>
<td>U.S. Fleet Forces Command</td>
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<td>USFK</td>
<td>U.S. Forces Korea</td>
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<tr>
<td>USNA</td>
<td>U.S. Naval Academy</td>
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</table>
USSOCOM: U.S. Special Operations Command

UTM: Unit Training Management

UW: Unconventional Warfare

VTOL: Vertical Take-Off and Landing

WARCOM: Warfare Command

WIN-T: Warfighter Information Network-Tactical

WTI: Weapons Tactics Instructor
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