DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATED MARINE CORPS
3000 MARINE CORPS PENTAGON
WASHINGTON, DC 20350-3000

MCO 8000.7A
C13
07 Feb 2013

MARINE CORPS ORDER 8000.7A

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE CORPS MUNITIONS REQUIREMENTS PROCESS (MCMRP)

Ref: (a) DoD Instruction 3000.04 of 24 September 2009
(b) OPNAVINST 8011.9B of 26 September 2012
(c) SECDEF memo, "Guidance for Development of the Force (GDF)"
(d) SECDEF memo, "Guidance for Employment of the Force (GEF)"
(e) SECNAV M-5210.1

Encl: (1) Marine Corps' Munitions Requirements Process
(2) Ammunition Working Group
(3) Class V(W) Combat Planning Factors
(4) Glossary

1. Situation. The Department of Defense (DoD) established the Munitions Requirements Process (MRP) published as reference (a). This Order establishes policy, assigns responsibilities, and prescribes procedures for the Marine Corps' Munitions Requirements Process (MCMRP) for Class V(W) ground ammunition. Aviation ammunition (Class V(A)) combat requirements are developed as part of the Navy's Non-Nuclear Ordnance Requirements process described in reference (b).

2. Cancellation. This Order cancels MCO 8000.7 and MCO 8010.1E.

3. Mission. The Deputy Commandant for Combat Development and Integration (DC CD&I) is the Marine Corps executive agent for MCMRP and is responsible for Marine Corps policy, direction and coordination of the MCMRP as well as providing representation for the process to the Office of the Secretary of Defense (OSD), the Department of the Navy, and the Joint Chiefs of Staff.

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4. Execution.

a. Commander's Intent and Concept of Operations

(1) Commander's Intent. Produce a single ground ammunition Total Munitions Requirement (TMR) for programming, acquisition, logistics and operational planning, using the process described in enclosure (1).

(2) Concept of Operations. Every even calendar year, DC CD&I conducts a War Reserve Munitions Requirement (WRMR) study; which along with the Training and Testing Requirement (TTR) determines the ground ammunition TMR. Figure 1 below shows the different components of the TMR.

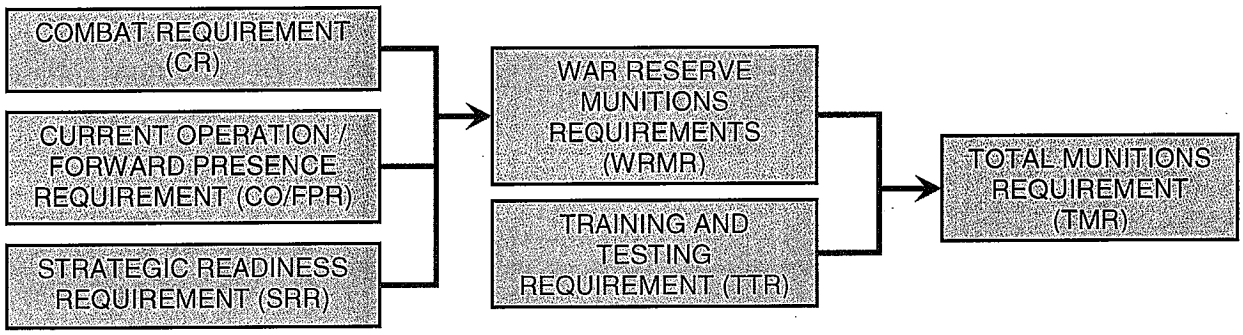

Figure 1. TMR Components

(a) The WRMR Study models capabilities against threat-specified scenarios to produce munitions requirements in support of the Combat Requirement (CR), Current Operation/Forward Presence Requirement (CO/FPR) and Strategic Readiness Requirement (SRR).

(b) The TMR provides the Approved Acquisition Objective (AAO) for the procurement of munitions in support of all Marine Corps ground weapon systems. The TMR, minus the projected serviceable inventory, provides the basis for the development of Program Objective Memorandum (POM) submissions for ground munitions.

(c) DC CD&I manages these functions through the Capabilities Development and Integration Board (CDIB) and the Ammunition Working Group (AWG). The specific function and composition of the AWG is contained in enclosure (2).

(d) An odd-year TMR shall be produced as required by DoD MRP policy or when changes to Marine Corps data have

occurred causing significant impact to munitions requirements and/or POM submissions.

b. Responsibilities

(1) Deputy Commandant for Combat Development and Integration (DC CD&I)

(a) Develop the Class V(W) TMR in accordance with reference (a).

(b) Conduct sufficiency assessments in accordance with reference (a) and current year inventories.

(c) Provide the TMR and sufficiency assessments, in accordance with reference (a), to the Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics, the Chairman of the Joint Chiefs of Staff and appropriate Combatant Commanders (COCOM).

(d) Develop Class V(W) Combat Planning Factors (CPFs) for use in operational planning as outlined in enclosure (3).

(e) Develop the Class V(W) Procurement of Ammunition, Navy & Marine Corps (PANMC), Operation and Maintenance Marine Corps (OMMC) and Research Development Test & Evaluation Navy (RDTEN) funding profiles for submission during each POM cycle and coordinate the support of Class V(W) PMC funded munitions.

(f) Provide the Chair to the AWG.

(2) Deputy Commandant for Plans, Policies, and Operations (DC PP&O)

(a) Provide the priorities of procurement and subsequent support of munitions to the operating forces.

(b) In coordination with Deputy Commandant for Installation and Logistics (DC I&L), determine the post-hostilities combat capability required for forces committed to the threat-specified scenarios and determine the capability of Marine Corps forces not committed to support combat operations (CO/FPR and SRR).

(c) Provide assessment of COCOM Near Year (NY) Phased Threat Distribution (PTD) in order to identify USMC

concerns and ensure accurate PTD assignment for NY deliberate planning.

(c) Provide assessment of the Out Year (OY) PTD produced by Joint Chiefs of Staff J8 in order to identify USMC concerns and ensure accurate PTD assignment for OY deliberate planning.

(d) Provide representation to the AWG.

(3) Deputy Commandant for Programs and Resources (DC P&R)

(a) Provide initial programming guidance, and support MCMRP as the conduit for submission of program initiatives.

(b) Provide representation to the AWG.

(4) Deputy Commandant for Aviation (DC AVN). Provide Marine Corps aviation data and support MCMRP as the conduit of support for Class V(A) munitions requirements process in accordance with reference (b).

(5) Deputy Commandant for Installation and Logistics (DC I&L).

(a) In coordination with PP&O, provide equipment repair data in support of WRMR modeling.

(b) In coordination with DC PP&O, determine the post-hostilities combat capability required for forces committed to the threat-specified scenarios and determine the capability of Marine Corps forces not committed to support combat operations (CO/FPR and SRR).

(c) Provide representation to the AWG.

(6) Commanding Generals, Marine Corps Forces

(a) Provide input to the COCOM for development of the NY PTD, and review for completeness and accuracy.

(b) Provide guidance (to include Phase alignment data and timeline) and Time-Phased Force Deployment Data (TPFDD) for Operation Plan(s) (OPLAN[s]) to the munitions development process.

(c) Provide DC CD&I with U.S. Code Title 10, Developing Country Combined Exercise Program training ammunition requirements (DCCEP).

(d) Validate Landing Force Operational Reserve Material (LFORM) Class V(W) requirements and provide updates/changes as required.

(e) Provide Subject Matter Experts (SMEs) in order to validate input data and to support development of the MCMRP.

(f) Provide operational assessment of the Marine Corps NY-Constrained TMR to COCOM for NY Pre-POM Munitions Assessment that assesses risk to warfighting success.

(g) Provide representation to the AWG.

(7) Commander, Marine Corps Systems Command (COMMARCORSYSCOM)

(a) Provide weapon characteristics for fielded and to-be-fielded weapon systems, and associated ammunition items.

(b) Provide developmental and testing requirements for program manager support.

(c) Provide ammunition inventories, production and delivery data.

(d) Provide representation to the AWG.

(8) Director, Marine Corps Intelligence Activity

(a) Provide threat force weapon employment information and characteristics, threat force information, and terrain analysis as required.

(b) Participate in the Joint Country Force Assessment process used by the Defense Intelligence Agency to develop Threat Reports (TRs), and review the reports for completeness and accuracy.

(9) Commanding General, Training and Education Command (CG TECOM)

(a) Provide an annual Consumption Based Budgetary Submission (CBBS) in support of training no later than 15 November of each fiscal year.

(b) Provide representation to the AWG.

(10) Director, Operations Analysis Division. Provide analytical support throughout the development of munitions requirements.

(11) Director, Total Force Structure Division. Provide table of organization and table of equipment data through the Total Force Management Support System.

c. Coordinating Instructions

(1) The Marine Corps Munitions Requirements Process is a complex undertaking. First, it occurs over an extended timeframe, meaning change in nearly every aspect (be it source data, methodologies, tools or participants) is to be expected. Second, it involves multiple players, with geographical and organizational distances making communications difficult. Finally, it involves nested processes wherein any problems and misunderstandings are compounded as they pass between supporting and supported activities and eventually cascade through the results.

(2) The MCMRP is by design, a collaborative process that achieves effectiveness through the full participation of Headquarters Marine Corps organizations and the operating forces. All stakeholders (those commands identified in paragraph 4.b) will participate in all phases of the MCMRP by providing input to DC CD&I for use in identifying and developing requirements. This input may be provided through a combination of means, to include participation in MRP and AWG-related forums.

5. Administration and Logistics. Records created as a result of this Order shall be managed according to National Archives and Records Administration approved dispositions per reference (e) to ensure proper maintenance, use, accessibility and preservation, regardless of format or medium.

a. Correspondence concerning the MCMRP shall be directed to the DC CD&I.

Commanding General
Marine Corps Combat Development Command
3300 Russell Road
Quantico, VA 22134-5001

b. This Order is published electronically and can be accessed online via the Marine Corps home page at http://www.usmc.mil.

6. Command and Signal

a. Command. This Order is applicable to the Marine Corps Total Force.

b. Signal. This Order is effective the date signed.

RICHARD P. MILLS
Deputy Commandant for Combat
Development and Integration

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Marine Corps' Munitions Requirements Process

1. Department of Defense Munitions Requirements Process. Department of Defense Instruction 3000.04, *DoD Munitions Requirements Process (DoD MRP)*, is the governing document that specifies how munitions requirements should be calculated by the military services. This Instruction implements policy, assigns responsibilities, and prescribes procedures for the DoD MRP under current Guidance for Development of the Force. The performance goal of the process is to take a given force structure, armed for its assigned military mission and estimate the quantity of munitions required to defeat a specific threat in accordance with the National Military Strategy and COCOM OPLANs. The WRMR is developed by conducting a WRMR Study biennially which models capabilities against threat specified scenarios. Figure 2 below illustrates the MCMRP cycle. The POM-16 cycle is used in this example.

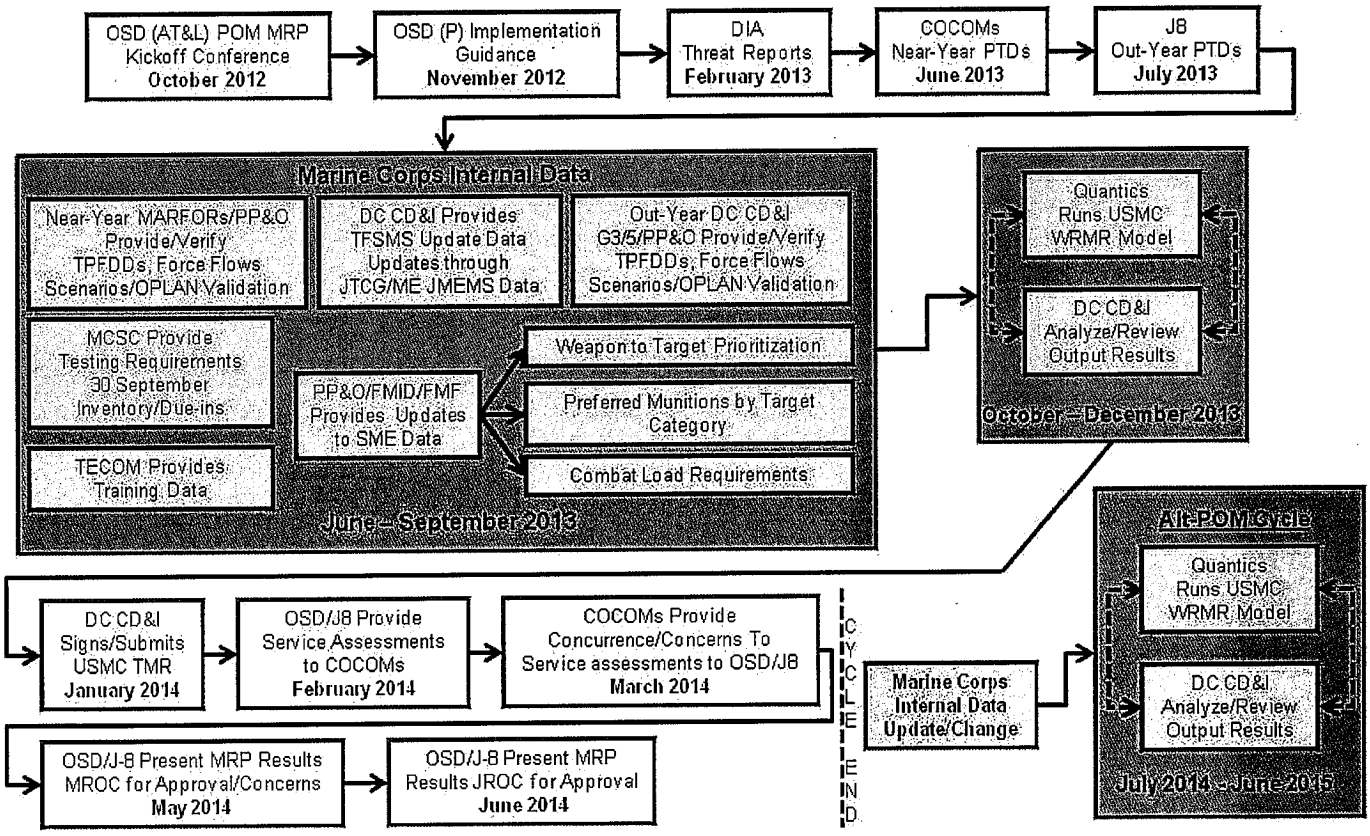

Figure 2. MCMRP Cycle

2. USMC WRMR Model.

a. The USMC WRMR model is a decision support tool used to generate a list of munitions required by the Marine Corps to conduct its assigned missions as outlined in references (c) and (d). The model incorporates specific Threat Report (TR) data, PTD, TPFDD, weapons effectiveness data, weapon systems and their associated ammunition types when determining ammunition requirements.

b. The WRMR model produces an unconstrained munitions requirement for war reserve munitions based on the above inputs. The WRMR model provides computed munitions requirements for each fiscal year spanning the Future Years Defense Plan (FYDP) that takes into account equipment modernization and changes to force structure. Additionally, the WRMR model has the ability to operate in a constrained mode, meaning that it will not expend more of any munitions type than are available in the inventory and will use alternative means as necessary when preferred munitions inventories are exhausted.

c. When modifications are made to the WRMR model, regression testing must be performed to ensure that the modifications are implemented correctly, they continue to accurately represent real world activities, and the model remains valid for use in determining the munitions requirement.

3. Developing the War Reserve Munitions Requirement (WRMR). Generation of the WRMR requires three sub-processes: determining the CR, determining CO/FPR, and determining the SRR. The results from these processes are combined to produce the WRMR. WRMR modeling requires multiple data inputs and must be flexible enough to accommodate changes (i.e., changes to GEF, TRs, the National Military Strategy, tactics, doctrine, weapons platforms, etc.).

4. Combat Requirement (CR).

a. The CR consists of that quantity of munitions required to equip a specified force structure to its designed military capability and to meet the Combatant Commander requirements for decisive defeat of the enemy. This includes Level of Effort Munitions which do not generate requirements based upon system to target engagement.

b. The following relevant data is required before determining the CR:

(1) OSD (AT&L) DoD MRP Implementation Guidance

(2) DIA Threat Report

(3) COCOM NY PTD data

(4) J8(WAD) OY PTD data

(5) OPLAN alignment

(6) TPFDD

(7) Total Force Structure Management System data

(8) Joint Munitions Effectiveness Manuals data

(9) SME data

c. The CR is developed by modeling capabilities against threat-specified scenarios, as directed by the OSD, by determining the total consumption plus one Combat Load (CL) for one win-decisively (WD) scenario and the total consumption plus one CL for each of two swiftly-defeat (SD) scenarios'. The implementation guidance provides specific instructions regarding which scenario combinations are to be utilized in calculating the CR. The more stressing of the scenario combination requirements, by ammunition type, determines the CR.

5. Combat Planning Factor (CPF). Once the requirements for the threat-specified scenarios are determined, the consumption data is utilized to determine a daily CPF, by ammunition type and weapon system. Each day of the scenarios are analyzed to determine high intensity days and low intensity days. The average of the high intensity days provides the daily assault rate and the average of the low intensity days provides the sustain rate. CPFs are utilized to determine the CO/FPR, SRR and are provided to Marine Corps units for use in deliberate planning.

6. Current Operations/Forward Presence Requirement (CO/FPR).

a. The CO/FPR consists of the quantity of munitions required to arm forces to conduct current operations and meet

forward presence obligations in accordance with the GEF. Forward presence includes Global Naval Force Presence Policy and operations that the President and/or Secretary of Defense direct.

b. DC PP&O (in coordination with DC I&L) is responsible for determining the capacity required to conduct current operations and meet forward presence obligations. This data, the size of the force, and its required sustainment capability, shall be provided to the DC CD&I for computing the CO/FPR within the first 120 days of the WRMR Study.

c. DC CD&I is responsible for computing munitions requirements to meet the determined CO/FPR capability. This will include LFORM for Marine Expeditionary Units (MEUs), requirements for Air Contingency Marine Air-Ground Task Force (MAGTF), and other requirements. The CO/FPR consist of a CL supporting the structure of the associated force Table of Organization and Equipment (TO&E) with sustainment computed utilizing the CPF developed during the modeling of the CR.

7. Compute Strategic Readiness Requirement (SRR).

a. The SRR is the quantity of munitions needed to arm forces not committed to support combat operations in the assigned major combat operations, as well as those in the strategic reserve. Includes any additional munitions requirements generated from treaties or statutory obligations to allies.

b. DC PP&O (in coordination with the DC I&L) is responsible for determining the capacity of Marine Corps forces not committed to support combat operations in the GEF. When determining this capability, the DC PP&O must consider forces required by treaty and/or statutory requirements, forces involved in peacetime operations, and forces available for mobilization from the reserves. The current GEF shall be reviewed for applicability of specific assets that must be addressed during this process. This data, the size of the force, and its required sustainment capability, shall be provided to the DC CD&I for computing the SRR within the first 120 days of the WRMR Study.

c. DC CD&I is responsible for computing the munitions requirement necessary to meet the identified GEF. The SRR consist of a CL supporting the structure of the associated force Table of Organization and Equipment (TO&E) with sustainment

computed utilizing the CPF developed during the modeling of the CR and other guidance as stated by treaty or statutory requirements.

8. War Reserve Munitions Requirements (WRMR). DC CD&I is responsible for computing the WRMR, which is the sum of the CR, CO/FPR and SRR. The output shall be used for computing the TMR.

9. Training and Testing Requirement (TTR). DC CD&I is responsible for compiling the TTR identifying the munitions procurement levels required to support consumption during training and ensuring munitions consuming systems are capable of meeting the intended effectiveness. The TTR is the sum of the Consumption Based Budgetary Submission, the Pipeline Requirement, and the Testing Requirement.

a. Consumption Based Budgetary Submission (CBBS). CG TECOM develops the munitions training requirements utilized as the foundation to produce an annual CBBS in support of training based upon the highest annual consumption rate during the previous 5 fiscal years (High 5) for each munitions item to be utilized in training. This submission establishes procurement objectives to replenish training ammunition expended annually while allowing commanders to train without fiscal constraint. Changes to the CBBS shall be submitted through the chain of command via CG TECOM C462(UC) to CMC WASHINGTON DC CDI LID(UC).

b. Pipeline Requirements. DC CD&I is responsible for computing the munitions requirement necessary to meet the logistical pipeline for training-unique items (i.e., those munitions items that do not have a WRMR). The pipeline requirement is determined as 313/365 of the CBBS. 313 days is the weighted average of how long it takes training-unique munitions to be delivered, once the procurements action is initiated with the Single Manager for Conventional Ammunition or similar activity. The pipeline requirement allows the Marine Corps to maintain an adequate inventory of training-unique munitions, to ensure uninterrupted training is realized.

c. Testing Requirements. COMMARCORSYSCOM is responsible for compiling testing requirements. Testing of weapons systems continues after initial development and production for various reasons including shelf-life extensions, reliability, maintenance, product improvements, surveillance testing, and inventory rotation.

10. Total Munitions Requirement (TMR)

a. DC CD&I is responsible for computing the TMR, which is the sum of the WRMR and the TTR for both the NY and OY of the POM process. DC CD&I will:

(1) Provide the NY "constrained" munitions requirements and the methodology used to the Chairman of the Joint Chiefs of Staff (OSD AT&L) and the COCOM.

(2) Provide NY and OY "unconstrained" munitions requirements and the methodology used to OSD(AT&L).

(3) Provide the NY and OY "unconstrained" munitions requirements to COMMARCORSYSCOM for use in NY TMR supportability analysis and determining procurement based upon the approved acquisition objectives defined by the OY TMR.

b. The format for this report is defined in reference (a). The report contains the total requirement for each munitions item, with each TMR component (CR, CO/FPR, SRR, and TTR) itemized separately. For each item, the requirements are analyzed against the annual projected inventory across the span from the current year through the last year of the current FYDP. Because the requirements themselves are not static, evolving year-to-year as weapon systems are fielded and retired, the USMC Class V(W) WRMR model generates a separate version of this report for each fiscal year it considers.

11. Sufficiency Assessments (SA). DC CD&I is responsible for providing sufficiency assessments as defined in reference (a).

(a) Pre-POM SA by January 1 of every even-numbered calendar year to the Chairman of the Joint Chiefs of Staff, the Under Secretary of Defense for Acquisition, Technology and Logistics (USD(AT&L)), and the Director, Cost Assessment and Program Evaluation (CAPE); post-POM assessments shall be submitted 21 days after POM submission to OSD.

b. SA shall be used to inform programmers and DoD leaders during POM deliberations.

c. Military Services may collaborate with appropriate COCOM and the Joint Staff in developing the pre-POM and post-POM SA.

Ammunition Working Group

1. Mission. The AWG serves as the principal forum for developing and evaluating new approaches for improving the processes and procedures within the MCMRP and to identify, review, and resolve ammunition issues. The primary AWG responsibility is establishing a common understanding of munitions requirements development, helping to build consensus among the advocates, and reviewing and making recommendations to DC, CD&I through the CDIB.

2. Organization and Membership. To promote consensus and integration across the Marine Corps, AWG membership shall consist of representatives from DC PP&O, DC I&L, DC P&R, COMMARCORSYSCOM (Program Manager for Ammunition), TECOM G3, and the Marine Corps Forces G3's. The DC CD&I Ammunition Requirements Officer serves as the Chairman of the AWG and may task-organize the AWG, as deemed appropriate to the issues being discussed and/or reviewed.

3. Responsibilities and Accountability. At a minimum, the AWG will review and make recommendations to DC CD&I through the CDIB concerning all munitions requirements development issues at the following points within the MCMRP:

a. Following MRP Implementation Guidance from OSD for any given POM cycle.

b. Prior to submission of TMR to OSD.

c. For any unresolved issue that requires a Marine Requirements Oversight Council decision.

Class V(W) Combat Planning Factors

1. Background. The operational needs and requirements of the Marine Corps are dynamic, based in part on the National Military Strategy, current SPG, and ever-changing tactics, techniques and procedures. To keep pace with these changes, the Class V(W) Combat Planning Factors (CPFs) are updated in conjunction with WRMR adjustments and published at the Marine Corps Ammunition Requirements website, https://www.mccdc.usmc.mil/CDD/Ammo/index.html.

2. Action. Guidance and direction for the use of CPFs is provided in this enclosure. CPFs that reflect current weapons systems and associated ammunition items are provided at the Ammunition Requirements website. These CPFs are developed to support both current OPLAN/Contingency Plan development and the CO/FPR and SRR munitions requirements described in reference (a).

a. CPFs reflect anticipated expenditures of ground ammunition over designated time periods of combat/contingency operations and represent unconstrained requirements. The process used to derive and develop the CPFs is described on page 3 of Enclosure (1) of this Order.

b. The CPFs are to be used for combat/contingency operations initial planning. CPFs when used in conjunction with a force structure, weapons mix, combat intensity, and scenario durations provides an anticipated requirement and aids in planning effective use of limited transportation resources. Anticipated requirements developed from the CPFs must be validated by the operating force planners to ensure they both meet and not exceed the munitions requirement necessary to execute the plan. For example, if the opposing force has only a limited armor threat, the number of anti-armor munitions generated using CPF calculations may be reduced to meet the threat.

c. Commanders at all levels shall use the CPFs to conduct Class V(W) contingency requirements planning.

d. Correspondence concerning the Class V(W) CPFs shall be directed to the DC CD&I (C13).

Commanding General
Marine Corps Combat Development Command (C13)
3300 Russell Road

Quantico, VA 22134-5001

3. Scope. DC CD&I is responsible for establishing Class V(W) planning factors for combat and/or contingency operations.

4. CPFs.

a. The tables contained at the Ammunition Requirements website provide the CPFs in Table of Authorized Material Control Number (TAMCN) sequence and CPFs in Department of Defense Identification Code (DODIC) sequence, respectively. The CPFs represent balanced requirements of a composite Ground Combat Element (GCE) or Non-Ground Combat Element (Non-GCE) intended to assist commanders in more closely matching ground ammunition requirements to specific threats.

b. The data in each column of the CPF tables is explained below:

(1) Table of Authorized Material Control Number/Organization. Identifies the weapon system, platform, TAMCN, or organization on which the rates are based.

(a) Rates based on organizations or teams represent the number of rounds to compute for each of the following:

1. INFBN, Infantry Battalion. The rates are shown as the number of rounds per Infantry Battalion, consisting of approximately 961 Marines and Sailors, in the MAGTF.

2. ENGBN, Engineer Battalion. The rates are shown as the number of rounds per Engineer Battalion in the MAGTF (applies to both Combat Engineer Battalions, consisting of approximately 648 Marines and Sailors, and Engineer Support Battalions, consisting of 1,341 Marines and Sailors).

3. NIEBN, Non-Infantry/Engineer Battalion. The rates are shown as the number of rounds per Battalion, (consisting of approximately 1000 Marines and Sailors) that are neither Infantry nor Engineer in the MAGTF.

4. ENGCO, Engineer Company. The rates are shown as the number of rounds per Engineer Company in the MAGTF, approximately 115 Marines in the GCE and 141 Marines in the Non-GCE (applies to Engineer Companies only, not Engineer Support

Companies or other companies within Combat Engineer Battalions and Engineer Support Battalions).

5. DEST1, Crypto and Document Destroyers, Large Set. The rates are shown as the number of rounds per Marine Aircraft Group and higher Headquarters (HQ) Element within the Aviation Combat Element (ACE), Regimental and higher HQ element within the GCE, Headquarters Company H&S Battalions within the Logistics Combat Element (LCE), and HQ Groups and Command Elements of the Marine Expeditionary Forces.

6. DEST2, Crypto and Document Destroyers, Small Set. The rates are shown as the number of rounds per MEU in the MAGTF.

7. EODTM, Explosive Ordnance Disposal Team. The rates are shown as the number of rounds per EOD TEAM, consisting of 9 EOD Marines, in the MAGTF.

(2) Nomenclature. Identifies the weapon system upon which the rates are based.

(3) Rates. The CPFs are presented at two rates. The first column represents the GCE. The second column represents the Non-GCE, which is comprised of the Command Element, ACE, and LCE. The rates are further divided into:

(a) Daily Assault. The rate is shown as the number of rounds per day per weapon or organization during the assault (intense) phase of combat.

(b) Daily Sustain. The rate is shown as the number of rounds per day per weapon or organization during the sustaining phase of combat.

(4) Combat Load (CL). Identifies the CL quantity of each munitions item.

5. Ancillary Items. The Ammunition Requirements website provides a table of associated ancillary items for artillery projectiles and a table of associated ancillary items for non-artillery items. Each table contains a list of prime items such as artillery projectiles or demolition materials that require one or more ancillary items matched to a list of ancillary items such as propellant, fuzes or launching cartridges. To determine

the total number of ancillary items required, multiply the quantity of prime items by the number in the "multiplier" column.

6. Combat Load(CL). The standard quantity and type of munitions to be carried in support of an individual, a weapons platform, and/or its dedicated support vehicle. Besides CPFs, a CL listing for each weapon, organization, and DODIC can be found at the Ammunition Requirements website.

7. Computing Requirements

a. To determine the munitions requirement for a single TAMCN, multiply the respective CPF by the number of days anticipated in either the assault or sustain mode and add that result to the CL, and round up. An example is provided below for an E0942, Light Armored Vehicle Anti-Tank anticipated to be engaged for 15 days in the assault and 5 days in a sustain mode:

DODIC	ASSAULT	X	DAYS	+	SUSTAIN	X	DAYS	+	CL		TOTAL
A131	(589.268	X	15)	+	(9.974	X	5)	+	1,480	=	10,369
AA04	(47.427	X	15)	+	(0.611	X	5)	+	120	=	835
G826	(4.847	X	15)	+	(2.198	X	5)	+	16	=	100
PV47	(0.634	X	15)	+	(0.005	X	5)	+	5	=	15
PV82	(0.495	X	15)	+	(0.003	X	5)	+	5	=	13
WH50	(1.681	X	15)	+	(0.025	X	5)	+	8	=	34

b. To determine the munitions requirement for an organization (NIEBN, INFBN, ENGCO, etc.), follow the steps outlined above and multiply the results by the percentage of the organization employed. For example, a non-infantry non-engineer battalion, consisting of 1000 Marines and Sailors, that deploys with a force of 500 would multiply the results by a factor of .5.

8. Interchangeable Munitions. The CPFs in tabs 1 and 2 are provided for the latest (or preferred) version of each ammunition item. In some cases older versions of the item (considered interchangeable) remain in the inventory and may be issued as substitutes to support combat/contingencies. A list of preferred and interchangeable items is available via COMMARCORSYSCOM, Program Manager for Ammunition.

Glossary

PART I - Acronyms and Abbreviations

ACE	Aviation Combat Element
AWG	Ammunition Working Group
CDIB	Capabilities Development and Integration Board
CG TECOM	Commanding General, Training & Education Command
CL	Combat Load
CO/FPR	Current Operation/Forward Presence Requirement
COMMARCORSYSCOM	Commander, Marine Corps Systems Command
CBBS	Consumption Based Budgetary Submission
CPF	Combat Planning Factor
CPG	Contingency Planning Guidance
CR	Combat Requirement
DC AVN	Deputy Commandant for Aviation
DC CD&I	Deputy Commandant for Combat Development and Integration
DC I&L	Deputy Commandant for Installation and Logistics
DC PP&O	Deputy Commandant for Plans, Policies, and Operations
DC P&R	Deputy Commandant for Programs & Resources
DoD	Department of Defense
DoDI	Department of Defense Instruction

DODIC	Department of Defense Identification Code
DOD MRP	Department of Defense Munitions Requirements Process
EOD	Explosive Ordnance Disposal
FYDP	Future Years Defense Plan
High 5	The highest annual consumption rate during the previous 5 fiscal years for each munitions item utilized in training.
HQ	Headquarters
LCE	Logistics Combat Element
LFORM	Landing Force Operational Reserve Material
MAGTF	Marine air-ground task force
MCMRP	Marine Corps' Munitions Requirements Process
MEU	Marine Expeditionary Unit
MCO	Marine Corps Order
MRP	Munitions Requirements Process
OPLAN	Operation Plan
OPNAVINST	Naval Operations Instruction
OSD	Office of the Secretary of Defense
OUSD (AT&L)	Office of the Under Secretary of Defense for Acquisition, Technology, and Logistics
POM	Program Objective Memorandum
PTD	Phased Threat Distribution
SD	Swiftly Defeat
SME	Subject Matter Expert

SPG	Strategic Planning Guidance
SRR	Strategic Readiness Requirement
TAMCN	Table of Authorized Material Control Number
TMR	Total Munitions Requirement
TO&E	Table of Organization and Equipment
TPFDD	Time-Phased Force Deployment Data
TR	Threat Report
TTR	Training and Testing Requirement
WD	Win Decisively
WRMR	War Reserve Munitions Requirement

Part II. Terms and Definitions

Approved Acquisition Objective	The quantity of an item authorized for peacetime and wartime requirements to equip and sustain U.S. and Allied forces, in accordance with current DoD policies and plans. That quantity shall be sufficient to support other U.S. Government agencies, as applicable. In accordance with DoD 4140.1-R, the Total Munitions Requirement is equivalent to the approved acquisition objective.
Combat Load	The standard quantity and type of munitions carried by an individual, a weapons platform and/or its dedicated support vehicle. Also called **CL**.
Combat Planning Factor	Used in conjunction with a force structure, weapons mix, combat intensity, and scenario durations, provide an anticipated requirement. Also called **CPF**.
Combat Requirement	The quantity of munitions required to equip a specified force structure to its designed military capability and to meet combatant commander requirements for decisive defeat of the enemy. This includes munitions needed for operational flexibility during combat. Also called **CR**.
Current Operation/Forward Presence Requirement	The sum of the munitions required to arm forces to conduct current operations and meet forward presence obligations. Forward presence includes Global Naval Force Presence Policy and operations the President directs. Also called **CO/FPR**.
Landing Force Operational Reserve Material	Contingency supplies pre-positioned on amphibious warfare ships consisting of Class I (rations), Class III (petroleum , oils and lubricants), Class IV (field fortification/construction material) and Class V(W) (ground ammunition), to enhance reaction time and provide support for the embarked landing force in contingencies.

Level of Effort Munitions	Munitions that do not generate requirements based upon system to target engagement and are stocked on the basis of expected daily consumption rates, the number of days of combat, and an assumed attrition rate based upon SME data to maintain an anticipated level of combat.
Munitions	Ammunition or ordnance, including, but not limited to, rockets, missiles, projectiles, and bombs required by a given force structure to neutralize a threat.
Near-Year	The first year of the Future Years Defense Program (FYDP) for any given Program Objective Memorandum (POM) (i.e., for POM-12, the Near-Year is FY-12. Near-Year munitions requirements are used for supportability analysis and prepositioning.
Out-Year	The last year of the Future Years Defense Program (FYDP) for any given Program Objective Memorandum (POM) (i.e., for POM-12, the Out-Year is FY-17. Out-Year munitions requirements are used for procurement and acquisition decisions.
Phased Threat Distribution	The combatant commander's phased assignment of a portion of the enemy's total combat capability (i.e., forces, installations, and organizations) to DoD component commands. The distribution is a percentage by type of target (e.g., tanks and fighter aircraft) by operation plan phases. Also called **PTD**.
Preferred Munitions	Those munitions, whether threat-oriented or level of effort, that provide the desired probability of kill against a given target type, or those that significantly improve the probability of survival against the projected threat, as determined by the war fighter.
Strategic Readiness Requirement	The quantity of munitions needed to arm forces not committed to support combat operations in the assigned major operations. It also

	includes any additional munitions requirements to meet treaty, bilateral, or statutory obligations to allies. Also called **SRR**.
Substitute Munitions	Alternative munitions retained in the inventory to make up for insufficient stocks of preferred munitions, as determined by the war fighter. These alternative stocks are not used in determining projected inventory requirements of preferred munitions, but are considered as a potential trade-off factor in determining procurement objectives of preferred munitions.
Threat-Oriented Munitions	Those that are intended to neutralize a finite assessed threat and for which an agreed upon mathematical model determines the total requirement.
Threat Report	Quantitative and qualitative assumptions, estimates, and facts about the threat specified in the current Strategic Planning Guidance/Contingency Planning Guidance, that U.S. and allied forces may face during the near-year and out-year period. The report presents the Defense Intelligence Agency's estimate of enemy capabilities in three levels of detail ranging from type and numbers of weapons to an analysis of expected trends in modernization of weaponry and force structure.
Time-Phased Force Deployment Data	The Joint Operation Planning and Execution System database portion of an operation plan; it contains time-phased force data, non-unit-related cargo and personnel data, and movement data for the operation plan. Also called **TPFDD**. (Excerpt from JP 1-02)
Total Munitions Requirement	The sum of the War Reserve Munitions Requirement and the Training and Testing Requirement. The TMR is equivalent to, and synonymous with, the Approved Acquisition Objective. Also called **TMR**.
Training and Testing	Munitions requirements to train the force and to support programs, ensuring that weapons and

Requirement	platforms deliver the intended effectiveness. Surveillance testing of munitions items is accounted for in this block. Also called **TTR**.
War Reserve Munitions Requirement	The sum of Combat Requirement, Current Operation/Forward Presence Requirement, and Strategic Readiness Requirement. Also called **WRMR**.