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MARINE CORPS ORDER 3000.11D

From: Commandant of the Marine Corps
To: Distribution List

Subj: MARINE CORPS AUTOMATED READINESS EVALUATION SYSTEM (MARES)

Ref: (a) MCO P3000.13C
(b) UM 4790-5
(c) MCO 5311.1C
(d) MCO P4400.82F, w/ch 1
(e) MCO 4400.150E
(f) MCO P4790.2C, w/ch 1

Encl: (1) Resource Reporting Methodology
(2) Materiel Readiness Reporting Calculations
(3) Detailed Readiness Reporting

1. Purpose

a. To provide a realistic portrayal of a Functional Area (F/A), Table of Authorized Materiel Control Number (TAMCN), Marine Forces (MARFOR), Marine Expeditionary Force (MEF), MSC, or unit's capability to perform its assigned mission. Fifth Element organizations referred to as Bases, Posts, and Stations (BPS) also fall under the direction of this Order. The process developed for monitoring the ground equipment capability within the Marine Corps is the MARES, with the CMC (LPO-1) responsible for functional management.

b. All Commands and all levels will report Marine Corps Materiel Readiness in accordance with this MCO.

2. Cancellation. MCO 3000.11C.

3. Summary of Revision. This Order incorporates changes in terminology to support Status of Resources and Training System (SORTS) [reference (a)], as well as creating an integrated plan to identify and track equipment for use by the Joint Chiefs of Staff (JCS) operations and logistics sections (G-3 and G-4). Additionally, it includes clarification of Materiel Readiness formulas and procedures for documenting the status of new and excess equipment within the MARFORs to include some command adjustment procedures.

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4. Background

a. MARES is a command information system with an overall objective to provide information concerning ground equipment status of MARFOR units and selected commands.

b. Asset Tracking for Logistics and Supply Systems (ATLASS) and Marine Corps Integrated Maintenance Management System (MIMMS) integrate supply and maintenance information to provide status and visibility of ground equipment. MARES retrieves, integrates, and processes the unit provided data to:

(1) Reflect the current status of selected ground equipment authorized and possessed by reporting commands/units. Reportable equipment is identified annually in Marine Corps Bulletin 3000 (MCBul 3000) entitled "Table of MARES Equipment."

(2) Provide the identification of MARES tracked equipment excesses and deficiencies within the reporting unit.

(3) Present an overview of the effectiveness of the maintenance and supply systems in support of Marine Corps reportable items.

(4) Provide data that reflects information regarding the measure of an organization's equipment capability. The "S" rating indicates the availability of the equipment that a unit is authorized and the measurement of an organizations materiel on-hand posture. The "R" rating indicates the condition of the equipment an organization has on-hand, without regard to that organization's Table of Equipment. For use in SORTS reporting, see enclosure (1).

(5) MARES additionally provides an overall assessment of a unit's Materiel Readiness "MR" rating for stratification of the performance at various levels (i.e; Functional Areas / equipment type / organization, etc.) within the Marine Corps as defined by the enclosures.

5. MARES/SORTS Relationship

a. SORTS is a JCS reporting system, which provides identity and status information concerning designated military organizations. MARES reflects the actual operational status of reportable mission-essential/PEI end item ground equipment possessed (on-hand) by each reporting unit.

b. Equipment status reflected by MARES will be used to support unit equipment readiness ratings (e.g.; "S" rating - equipment/supplies on hand; "R" rating – equipment condition).

c. MARES provides supplemental data used solely within the Marine Corps to monitor the status of mission-essential equipment and selected PEI. Equipment status information can be aggregated from the battalion, squadron, and separate company level all the way up to and including a MSC.

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d. MARES data, although similar in format to SORTS, is not a part of the SORTS report. However, the aggregated percentages reflected in MARES are reported to SORTS in the form of "S" and "R" levels (e.g.; "S-1" through "S-5") for both equipment/supplies on-hand ("S") and equipment condition ("R"). The numeric percentages from MARES are also displayed in the appropriate SORTS remarks records, which serve to further clarify or amplify the category level.

6. Definition of MARES Categories

a. Reportable PEIs. Reportable PEIs are those PEIs which have been nominated by MARFORs or supporting commands (e.g.; Marine Corps Combat Development Command (MCCDC) or Marine Corps Materiel Command (MARCORMATCOM)) for MARES reporting. First, these items have been designated as "combat essential" in the Logistics Management Information System (LMIS). Secondly, these PEIs may have a combat active replacement factor (CARF). Finally, these PEIs are reported as fielded within the operating forces or as directed by Deputy Commandant, Installations and Logistics (DC I&L).

(1) Those PEIs selected for MARES reporting do not include all equipment contained in the Marine Corps' inventory. The items selected, however, are of sufficient range to provide an adequate measure of overall equipment status or capability for MARFORs.

(2) To preclude gross distortions of equipment status percentages, items whose serviceability/operational capability which undergo frequent inspection or which can be readily replaced by the unit's first source of supply, are not reportable (e.g., rifles, gas masks). Non-reparable items are also excluded from MARES reporting.

b. Mission Essential Equipment (MEE). MEE items are items of equipment whose availability is essential and indispensable for the execution of the mission of the unit. Although current directives establish what equipment is mission-essential, force commanders make the final recommendation as to whether this equipment or other items are mission-essential for their command/mission.

(1) Items designated as MEE are of such importance that they are subject to continuous monitoring and management at all levels of command. Items eligible for nomination as MEE items must be listed in the JCS Major Equipment (MEQPT) file. This JCS file is maintained by the DC, Plans, Policies, and Operations, (POR). Additionally, for an item to be listed in the MEQPT file it must be listed in the Service Mission Essential List (MEL).

(2) A Table of Authorized Materiel Control Number (TAMCN) and applicable organization Table of Equipment (T/E) Number in enclosure (1) of MCBul 3000 identify MEE items.

(3) MEE items may be classified as a critical low density piece of ground equipment. Therefore, small changes in quantities possessed or equipment condition can lead to wide fluctuations in a unit's "S" and "R" ratings in SORTS.

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7. Mission Essential Equipment (MEE) Background

a. The Marine Corps reports to the JCS the status of resources through two mediums, the Joint Quarterly Readiness Review (JQRR) and the Service MEL.

b. The JQRR is a monthly report prepared on the status of resources and presented to the JCS (J-3, Operations) based on the operations capability of a unit. This report is derived from the resource levels reported in SORTS, provided by the unit commander, and briefed by exception. The purpose is to identify shortfalls and trends affecting the ability of a unit to fulfill its assigned mission(s).

c. The Service MEL is a list of PEI and repairable items created to provide the JCS (J-4, Logistics) a baseline by area of operation and mission. The mission essential items are a function of materiel readiness, management, and acquisition. The Service MEL is the MARFORs list of "essential" equipment provided and compiled by the DC I&L (LPO). This list represents the initial "critical" items required to support the assigned "operational contingencies" for the specific MARFOR. The respective MELs form the JCS critical item list (CIL) and are provided to all Commanders in Chief (CinC) to identify those items that the CinCs considers "critical" and potentially deficient in terms of "industrial base preparedness."

8. Nomination and Review of MARES Equipment

a. The Marine Corps identifies MARES tracked equipment as:

(1) Mission-Essential Equipment (MEE)

(2) Reportable PEI

b. MARES reportable equipment is defined as an item of equipment, which is identified in MCBul 3000. Before items can be included in this Bulletin, they must meet the following criteria:

(1) PEIs are supportable through publications, fielding, and supply support and are stable in design.

(2) PEIs are nominated for MARES reportable to the DC I&L by MARFORs or supporting commands (e.g.; MCCDC or MARCORMATCOM).

(3) Final decision for inclusion (or deletion) is determined by the DC I&L.

9. MARES Reportable Modernization Fielding. To remain a Force-in-Readiness, the Marine Corps plans, programs, and budgets annually for the modernization of its equipment and capabilities. The modernization of essential equipment can have a substantial effect on MARES reporting. Accordingly, new and replacement items will be included in MARES reporting during modernization (phase in/out) of equipment, unless otherwise directed by DC I&L.

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MARES Reportable Modernization Fielding will fall into one of three categories; New equipment, Replacement Equipment same TAMCN, and Replacement Equipment with a new TAMCN.

a. New Equipment. Equipment not replacing any current MARES Reportable Item. New equipment will require visibility to ensure that a MSC's capability is reported. In those instances when the new equipment is received, the unit will use the possessed as the authorized quantities pending receipt of the unit's full allowance.

b. Replacement with same TAMCN. Equipment replacing an existing MARES Reportable Item using the same TAMCN (e.g.; HMMWVA1 being replaced by the HMMWVA2) will be added to possess quantities with the authorized quantities remaining the same. Possess quantities for items being replaced will continue to be reported until final disposition.

c. Replacement with new TAMCN. Equipment being replaced by a totally new MARES Reportable Item with new TAMCN. (e.g.; M923 Series 5-ton being replaced by the MTRV Series 7-ton). Units will report replacement items with new TAMCNs received using the possessed as the authorized quantities pending receipt of the unit's full allowance.

10. MARES Reportable Equipment Change Requirements

a. Changes (nominated additions/deletions) to the MEE item/reportable PEI equipment lists will be made on a periodic basis. A revised list will be published annually via MCBul 3000.

b. Field commands are invited to recommend changes to the MEE item/reportable end item equipment lists. Recommended changes should be submitted via the chain of command to the DC I&L (LPO) for approval.

c. Since the impact of changes to the MEE items list is far greater than that of other equipment, the proposed changes must undergo a rigorous review during the approval process. Accordingly, MARFOR Commanders will include a detailed rationale for the proposed change and will address the need for reporting the equipment in relation to the unit's mission, current and anticipated threats, current doctrine, and supportability. In addition, proposed changes will include the unit identification code (UIC) and the Table of Organization and Equipment (T/O&E) number.

11. Tracking, Computing, and Reporting Ground Equipment Status

a. MARES provides equipment status to Materiel Readiness managers in an efficient manner. Automation is used to the maximum extent to record, process, store data, and ultimately to produce management reports. This is accomplished as accurately and rapidly as possible using the optimal amount of equipment resources and personnel available. The features of this system are as follows:

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(1) Incorporates supply and equipment data generated from both manual and automated sources.

(2) Integrates data from several sources and interfaces with other systems.

(3) Provides uniform and centralized equipment capability (operational/non-operational) information at each command level.

(4) Provides timely data for commanders to use in their decision-making / risk assessment process.

b. Management reports are tailored for use at various command echelons. Reference (b) contains examples of all MARES reports, which may be produced from the MIMMS databases.

12. Logistics Systems Background and Interfaces. MARES extracts information from various sources including:

a. Stock Control System (SCS). SCS provides wholesale supply management over the PEI quantities.

b. Logistics Management Information System (LMIS). LMIS provides the unit allowance and multiples, PEI replacement cost and factors, and PEI management codes.

c. Field Maintenance Subsystem (FMSS). FMSS provides a data repository for the maintenance production and history of equipment / repair parts.

d. Headquarters Maintenance Subsystem (HMSS). HMSS is the consolidated repository for the FMSS histories.

e. Marine Air-Ground Task Force (MAGTF) Data Library (MDL). MDL provides the single source for technical reference data for the MAGTF II logistics automated information system family of systems.

13. SORTS/Resource Computations. The equipment status percentages that appear in the Unit's Resource Report are computed using the formulas and methods discussed in the enclosures. SORTS equipment percentages convert directly to resource area category levels for SORTS reporting.

14. Reporting Medium. MARES transactions are input to/generated by the FMSS and reflect the actual status of reportable items. After completion of each ATLASS/MIMMS weekly cycle, MARES transactions are automatically segregated by major command and transaction-type. Recognizing that there are currently multiple automated systems in the MSC's, each of them must establish procedures to ensure MARES data sets are transmitted to MARCORMATCOM to arrive no later than midnight Sunday of each week. Additionally, MARCORMATCOM will

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ensure non-system supported unit information, such as "stores," and non-MARFOR unit's records are updated quarterly.

15. Detailed Reporting. The modernization program for the replacement of principal end items has a substantial effect on MARES reporting. The remarks held within enclosure (3) provides examples of occasions for the reporting of MARES items.

16. Special Reporting Instructions

a. Activation of New Units

(1) The MEF Commander will request assignment of UIC for new units from the CMC (PP&O).

(2) The MEF Commander upon receipt of the UIC, will submit a request to COMMARCORMATCOM to load the new UIC to the MARES UIC standards data file. The MEF Commander will initiate this request at least 30 days prior to unit's activation.

(3) When a unit is reporting an overall SORTS rating of C-5 (service programmed, resource allocation does not permit a higher C-level) the following procedures apply:

(a) Report MARES under the assigned UIC, unit name, major command UIC, and MEF code.

(b) Use type unit code (TUC) 3

(c) Reported allowance quantities will reflect the full T/O&E authorization.

(4) Resultant MARES Reports:

(a) MARES Unit Report Materiel Readiness percentages will be reported as required by this Order.

(b) Equipment status reports do not reflect TUC 3 units and consequently, do not degrade a major command's readiness status; e.g., TUC 3 units reported data is suppressed.

(5) When the overall resource area ratings reach the C-3 level in SORTS, the MSC will submit a unit file change transaction to the supporting Maintenance Information System Coordinator Office for forwarding to COMMARCORMATCOM (e.g., former C-5 MARFOR unit is now C-3).

b. Command Adjustments and MAGTF Reporting

(1) To provide accurate on-hand visibility against the various Marine Corps allowance files (e.g., LMIS, loaded unit allowance files, mechanized allowance lists, etc.) command

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adjustments will be authorized in writing by the command directing realignment of T/O&E equipment. Examples are:

(a) Formation of a deploying MAGTF (e.g., 22d Marine Expeditionary Unit, Annual US - South American Allied Exercise (UNITAS)).

(b) Formation of a permanent or long-standing detachment (e.g., Chemical Biological Incident Response Force (CBIRF)).

(c) MARFORRES units when their T/A's are not equal to a full T/O&E.

(d) Units using a command adjustment will document using a RM4 remark transactions per enclosure (3).

(2) Accurate materiel readiness reporting for MAGTF organizations requires a coordinated effort between logistics and operations personnel. It is not recommended that MAGTF organizations report in MARES/SORTS when formed for less than 90 days. However, when the decision is made to form a MAGTF reporting unit, the unit must report the status of its reportable equipment.

(3) If MAGTF procedures are not required/initiated, asset transfers are considered a temporary loan. Temporary loan policy is contained in reference (e). The unit providing the temporary loan remains the owning unit and must reflect the status of that equipment on its MARES report. For SORTS reporting, the using unit(s) providing the temporary loan will ensure that the appropriate ATCLASS II (+)/MIMMS command adjustment procedures are followed to correctly reflect the status of the equipment on the owning unit's MARES asset report.

(4) The MARES asset changes will be closely coordinated between the supporting and task organized units to ensure that simultaneous add/delete transactions between units are accomplished.

17. Responsibilities. Responsibilities are vested in the DC I&L, CG, MCCDC, COMMARCORMATCOM, and the MARFOR Commanders as follows:

a. Deputy Commandant for Installations and Logistics (DC I&L):

(1) Approve policy for MARES.

(2) Update the table of items reported through MARES and SORTS.

(3) Evaluate resource reporting procedures used by MARFOR units.

(4) Represent the MARFORs for materiel (ground equipment) readiness inquiries to external agencies (e.g.; DoD, Congress).

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b. Commanding General, MCCDC:

(1) Review, validate, and approve changes to individual T/O&E equipment requirements through the application of the Marine Corps combat development tracking system for T/O&E Change Request.

(2) Oversee the troop list file and equipment allowance file, within LMIS, to correctly reflect up-to-date initial issue and sustainment numbers for T/O&E items of equipment.

c. MARFOR Commanders:

(1) Update Authorized Allowance files with DC, PP&O, Plans and Operations Readiness (POR) UIC files.

(2) Establish desk-top procedures/turnover files for MARES reporting.

(3) Coordinate UIC file change requests, for submission to COMMARCORMATCOM to reflect unit activations, deployments, and reorganizations.

(4) Ensure that major commands provide weekly readiness updates and reconciliation data to the COMMARCORMATCOM, to include data-set names and the last report number submitted by each major command.

(5) Establish procedures for deployed automated data support section in order to ensure adequate and timely MARES support for MARFOR units.

(6) Ensure that equipment status transactions are submitted to COMMARCORMATCOM weekly.

d. COMMARCORMATCOM

(1) Submit materiel readiness assessments as required by D/C I&L in support of the Congressional, Joint, and Department of Defense requirements. Materiel Readiness assessments will provide information using MARES data from MARFORs and PEI Stratification data for Total War Materiel Requirement (WMR). Consolidate and brief the status of ground equipment readiness problems on a quarterly basis. Materiel readiness assessments are to include but not limited to DC I&L, MARCORMATCOM (e.g.; MARCORSYSCOM, MARCORLOGBASES), I, II, and III MEFs, MARFORRES, MARFORPAC, and MARFORLANT.

(2) Host periodic Materiel Readiness Brief (MRB) – Executive Summary. The MRB Executive Summary will include but not be limited to HQMC (DC I&L), I, II, III MEFs, MARFORRES, MARFORPAC, MARFORLANT, MCCDC, etc. Working sessions will be conducted using the Materiel Readiness Assessment Module (MRAM) and MRAM Brief.

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(3) Provide and update electronically, a quarterly ground equipment capability database to the DC I&L (LPO) containing designated asset allowances, on-hand, and operational status (to include In-Stores assets defined as: Depot Maintenance Float Allowance, Net War Reserve Materiel, and MARFORRES In-Stores).

(4) Input transactions and distribute updated UIC, ID, and TAMCN standards files based on information provided by HQMC and each MSC.

(5) Conduct a reconciliation of the ATLASS/MIMMS database with each MEF's domain monthly. The MARCORMATCOM reconciliation will be announced by message at least 15 days prior to the prescribed cut-off date.

(6) Support MARES weekly reporting on Maritime Prepositioning Ships (MPS) and Norway Air-Landed Marine Expeditionary Brigade (NALMEB) assets.

e. SORTS Reporting for MARFOR Units will be conducted in accordance with Reference (a).

f. MARES Non-Reporting Units

(1) Bases, Posts and Stations (BPS). BPS are required to report MARES information and are not authorized to deviate from approved ATLASS/MIMMS directives and manuals. This includes equipment listed in MCBul 3000, which are held by BPS; (e.g.; equipment allowance pools, depots, maintenance floats, schools, etc). This policy reinforces the training of individual Marines and facilitates the total materiel requirements and equipment capability-information, when required by the CMC or higher.

(2) Cadre Units. Upon activation, cadre units will report MARES status at the battalion level. UIC's will be reported by the next maintenance management level (e.g.; Fleet Anti-Terrorism Security Team (FAST) Company has no maintenance capability and would report under Marine Security Guard Battalion's UIC). Also, a statement will be provided that identifies the unit as cadre and the authority for establishment of the cadre status.

g. Commanders are responsible for the operational materiel readiness and accuracy of reporting their equipment as stated in the Commander's T/O&E mission statement. Further, they must continually endeavor to achieve the maximum materiel readiness given the resources at their disposal. In MARFORRES units that do not possess a T/O&E mission statement, their T/O&E mission/logistics statement will reflect that of an equivalent active component unit, unless otherwise directed by higher headquarters.

(1) In the event a new/change to MCBul 3000 is published/received, or a new T/O&E is received, a reconciliation will be conducted prior to the next scheduled database update. To ensure proper reporting, the reporting unit (materiel management personnel) will perform a reconciliation to ensure that records are accurately tracked, recorded, and reported between ATLASS/MIMMS, Supported Activities Supply System (SASSY), and other agencies files.

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(2) All reporting will be reviewed prior to submission for accuracy and completeness, to include clarifying remarks. Commanders will provide procedures to clarify local requirements in equipment tracking and remarks.

18. Applicability. This Marine Corps Order is applicable to the Marine Corps Total Force.

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RESOURCE REPORTING METHODOLOGY

1. Overview. The equipment status percentages that appear in the Unit's Resource Report is computed using the formulas and methods discussed below. SORTS equipment percentages convert directly to resource area category levels for SORTS reporting.

2. The calculations for the "S" rating and "R" rating are based on the following guidance:

a. MEE item percentages are based only on those items for those T/O&E's designated in MCBul 3000.

b. Reportable PEIs percentages are based on all items listed within MCBul 3000.

c. Locally tracked items are not to affect the percentage calculations.

3. Computations for Active Forces

a. Supply/Equipment On-Hand ("S") Rating Percentages. S is the ratio between the equipment that is possessed and authorized. This rating is derived by dividing the total number of items possessed (on-hand), by the total number of items authorized (T/O&E) as demonstrated by the formula below:

$$S = \frac{\text{Possess}}{\text{Authorized}}$$

NOTE: This formula applies the quantity of equipment on-hand against the requirement determined by CG MCCDC.

b. Equipment Condition ("R") Rating Percentages. This rating is derived by subtracting the total number of deadlined items from the total number of items possessed, then dividing the difference by the total number of items possessed (on-hand) as shown below:

$$R = \frac{\text{Possess} - \text{Deadlined}}{\text{Possess}}$$

c. Materiel Readiness (MR). The measurement of an organization's materiel readiness posture. This mathematical relationship is the Measure of Effectiveness, which reflects the operational capability of Marine Corps ground materiel. MR can never be greater than S.

$$MR = \frac{\text{Possess} - \text{Deadlined}}{\text{Authorized}}$$

RESOURCE REPORTING METHODOLOGY

4. Computations for Reserve Forces. The Reserve forces will perform calculations for SORTS reporting using the unit's T/O&E, and "in-stores" assets. This reporting provides an overview of the status of procured equipment against the wartime requirement (the T/O&E), and providing MARCORMATCOM with an assessment of MARFORRES's immediate asset requirements.

a. Supply/Equipment On-Hand ("S") Rating Percentages. This rating is derived by dividing the total number of items possessed (on-hand) and augmented by "applied" in-stores assets, by the total number of items authorized (T/O&E) as demonstrated by the formula below:

$$\boxed{\mathbf{S} = \frac{\text{Possess}}{\text{Authorized}}}$$

(Possess equals T/A Equipment "On-hand" + Applied In-Stores)
Authorized equals Table of Equipment Allowance

NOTE: This formula applies the quantity of equipment on-hand and in-stores against the requirement determined by CG MCCDC.

b. Equipment Condition ("R") Rating Percentages. This rating is derived by subtracting the total number of deadlined items from the total number of items possessed, then dividing the difference by the total number of items possessed (on-hand) and augmented by total "applied" in-stores assets (RFI and not RFI); as shown below:

$$\boxed{\mathbf{R} = \frac{\text{Possess} - \text{Deadlined}}{\text{Possess}}}$$

Note: (Deadlined equals T/A Deadlined + NRFI. Possess equals T/A Equipment "On-hand" + Applied In-Stores)

MATERIEL READINESS REPORTING CALCULATIONS

1. Overview. This enclosure intends to ensure that the statistical calculations for readiness ratings (e.g.; MR, R, and S) are performed in a consistent and correct manner. This will provide a more accurate portrayal of readiness ratings by preventing loss of critical readiness rating information when Possess, Authorized, and Deadline numbers are rolled up to successively higher levels in time (e.g.; day, week, month, year) or by unit (e.g.; Battalion/Squadron, Division/Wing, MARFOR).

	A	B	C	D	E	F	G	H	I
1	Wk / Month	F/A	TAMCN	Possess	Auth	D/L	MR %	R %	S %
2	WK 1 / Month 1	30	D0000	1,430	1,422	208	86%	85%	101%
3	WK 2 / Month 1	30	D0000	1,429	1,424	175	88%	88%	100%
4	WK 3 / Month 1	30	D0000	1,416	1,412	210	85%	85%	100%
5	WK 4 / Month 1	30	D0000	1,419	1,396	228	85%	84%	102%
6	WK 1 / Month 2	30	D0000	1,418	1,384	193	89%	86%	102%
7	WK 2 / Month 2	30	D0000	1,424	1,391	208	87%	85%	102%
8	WK 3 / Month 2	30	D0000	1,434	1,409	233	85%	84%	102%
9	WK 4 / Month 2	30	D0000	1,422	1,406	264	82%	81%	101%
10									

Table 1: Raw Materiel Readiness Data

2. Table 1 above contains a compilation of two months of MARFOR wide materiel readiness (MR) data drawn from the Field Maintenance Sub-System (FMSS), for a given TAMCN. Column A contains the Week / Month of the MR data sampled every Friday from MIMMS through FMSS. Columns B and C hold the Functional Area (F/A) as defined by MC Bul 3000 and the TAMCN, within that F/A being analyzed. Columns D through F provide the sampled MR numbers for Possess, Authorized, and Deadlined for this given TAMCN. Finally, columns G through I contain the calculated readiness ratings for the given TAMCN, using the data sampled from the Friday of the given week/month.

	J	K	L	M
1	Time Period	MR %	R %	S %
2	Month 1 Avg (New)	86.195%	85.587%	100.716%
3	Month 1 Avg (Old)	86.201%	85.591%	100.712%
4	Difference	-0.006%	-0.004%	0.004%
5	Month 2 Avg (New)	85.906%	85.241%	101.678%
6	Month 2 Avg (Old)	85.891%	84.265%	101.929%
7	Difference	0.015%	0.976%	-0.251%
8	Two Month Avg (New)	86.050%	84.927%	101.324%
9	Two Month Avg (Old)	86.047%	84.928%	101.317%
10	Difference	0.004%	-0.001%	0.007%

Table 2: Statistical Averaging Comparison

MATERIEL READINESS REPORTING CALCULATIONS

3. Table 2 represents an example of comparisons between two different computational methods used to estimate average readiness ratings, for a given period of time. The **New** method (rows 2, 5, and 8 of table 2) calculates the average of the sampled ratings for a given period of time. The **Old** method (rows 3, 6, and 9 of table 2) totals all the sampled Possess, Authorized and Deadlined numbers for the specific period and then calculates the ratings using these totals as input. Contained within the shaded rows in Table 2 (rows 4, 7, and 10), you will find the difference between the two methods. These methods apply when analyzing a F/A or TAMCN rating over time as well as over a number of different units.

RESULT	
$\frac{5,693 - 820}{5653}$	= 86.201%

Figure 1: Old Method of Averaging MR Rating

a. The **Old** method used to estimate an average readiness rating, for a given TAMCN over a set period, is illustrated in figure 1. Figure 1 shows that when using the Old method to calculate an estimate of the MARFOR wide TAMCN - D0000 average MR Rating during month 1, four sample observations are totaled for the different variables of Possess, Authorized, and Deadlined. Then these totaled variables are used as input variables to the MR Rating Equation. The output of the equation estimates the MARFOR wide average MR Rating during Month 1 for TAMCN - D0000, The result shown above (e.g.; 86.201%) is indicative of the underlining computations in Column K, Row 3 of Table 2 above. The data used in our example can also be found in Table 1 as well. The Old Method causes the loss of important readiness information by totaling up the numbers before calculating a readiness rating. The New method does not total up numbers, instead, it uses readiness ratings to calculate a statistically robust estimate of the average of interest.

NEW AVERAGING CALCULATIONS	
MR Ratings 85.92% + 88.13% + 85.41% + 85.33% =	344.78%
RESULT	
$\frac{344.78\%}{4 \text{ Weeks}}$	= 86.195%

Figure 2: New Method of Averaging MR

b. The **New** method used to estimate an average rating, for a given TAMCN over a set period, is illustrated in figure 2. Figure 2 shows the **New** method to calculate an estimate of the MARFOR wide TAMCN - D0000 average MR Rating during Month 1, using the average of four sampled MR Ratings. So, we would calculate the average MR Rating by totaling the sample ratings (344.78%) and then dividing this total by the number of samples (4). The **New** method results in a average MR Rating for that period of 86.195% (Column K, Row 2 of Table 2 above),

MATERIEL READINESS REPORTING CALCULATIONS

which one might say is not that different from the rate we derived using the **Old** method, a difference of -.006 % in this case. However, the cumulative effect of these differences (Rows 4, 7, and 10 of Table 2) borne by the Old method of calculating readiness rates has and will have an impact on the accuracy of MR reporting. By using the **New** method, we do not lose important readiness information that is lost when using the **Old** method of rolling up the numbers before calculating a readiness rating. Thus, by using this **New** method, we capture all of the statistically important information, critical for use when making sound MR decisions. This method renders a statistically robust and accurate picture of readiness ratings for a given F/A or TAMCN specific to an Organization over a period of time.

DETAILED MATERIEL READINESS REPORTING

1. Detailed Reporting. Instructions for inputting transactions are contained in reference (b). Commanders at all levels will ensure strict adherence to these formats to facilitate the timely and accurate reporting of MARES items. With the limited space available on the LM2 for RM-4 remarks, it is necessary for the remarks to be prioritized. Therefore, all units will ensure that the following RM-4 remarks are entered in the priority sequence listed below:

- a. Headquarters Marine Corps (HQMC) Authorized
- b. Delta Adjustment (DELTA ADJ) (Reserves Only)
- c. Command Adjustment (CMD ADJ)
- d. Temporary Loan (T/L) of Equipment
- e. T/O&E (T/A) Deficiencies (DEF)
- f. T/O&E (T/A) Excesses (EXC)
- g. Marine Air-Ground Task Force (MAGTF) Reporting
- h. Planned Allowance (P/ALW)
- i. Special Allowance (SP/ALW)
- j. Table of Equipment Allowance File Challenges (T/E-C)
- k. Corrosion Prevention and Control (CPAC)
- l. Inter-Service Support Agreements (ISSA) (Reserves Only)

2. The following paragraphs explain why and when each of the RM-4 remarks listed in paragraph 1 above, are used and include examples of each:

- a. Headquarters Marine Corps (HQMC) Authorized

(1) This is a required RM-4 remark, and is the first entry made on the LM2:

HQMC AUTH = XXX

(2) Represents the HQMC auth T/E qty for a particular TAMCN.

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(3) This remark is required for units owning MARES equipment that apply to the unit's Table of Equipment (T/E), regardless of equipment condition, and provides the frame of reference for the total amount of equipment a unit is authorized in its T/E.

(4) The HQMC AuthQty entered in the RM-4 remark must be taken directly from the Mechanized Allowance Listing (MAL).

b. Delta Adjustment (DELTA ADJ) (Reserves Only)

(1) This is also a required RM-4 remark, and is the second entry made on the LM2:

DELTA ADJ = XXX

(2) The "DELTA" represents the amount of equipment to be sourced upon mobilization and is derived by subtracting the T/A Poss qty from the HQMC Auth qty.

c. Command Adjustment (CMD ADJ)

(1) Used to transfer MARES equipment from one command to another.

(2) The following RM-4 remarks apply for equipment transferred:

(a) From the supporting unit (the command adjustment quantity to the gaining command as applicable):

CMD ADJ QTY XXX to MXXXXXX

(b) To the gaining unit (the command adjustment qty from the supporting command as applicable):

CMD ADJ QTY XXX FM MXXXXXX

d. Temporary Loan (T/L) of Equipment

(1) From the supporting unit

T/L QTY XXX TO MXXXXXX DOR 10MAR01 IAW CG LTR 1ST MAW
4400/4SUP/1MAR01

(If a message is used, insert the message info in place of the letter info. For example: CG 1ST MAW 030400ZMAR01.) Note: Do not adjust the AUTH and POSS quantity.)

(2) To the gaining unit

T/L QTY XX FROM MXXXXXX DOR 10MAR01 IAW CG LTR 1ST MAW
4400/SUP/1MAR01.

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(If a message is used, insert the message info in place of the letter info. For example: CG 1ST MAW 030400ZMAR01.) Note: Do not adjust the AUTH and POSS quantity.

e. T/O&E (T/A) Deficiencies (DEF)

1) A command/unit will have on-hand or a valid requisition for all Table of Organization and Equipment (T/O&E) Training Allowance (T/A) reportable PEI allowances, unless otherwise directed by higher authority.

2) The MARES Unit Report will reflect MARES reportable equipment T/A or T/O&E deficiencies, and contain RM4 remarks in the following format:

T/O&E (T/A) DEF QTY XXX, DOC# /STATUS/STATUS DATE (JULIAN)/LAST KNOWN
HOLDER (LKH).

f. T/O&E (T/A) Excesses (EXC)

1) Planned Allowance to Actual Allowance. When a planned allowance is received, the receiving unit will submit a Memorandum of Agreement (MOA) to the CG MCCDC, per reference (c) requesting the "planned" allowance be made "actual."

(a) The receiving unit will increase the unit's LM2 report by the number of PEIs received to reflect:

The quantity "Possessed" will be used for "Authorized"

(b) The new equipment will be documented in the RM4 remarks as follows:

P/ALW QTY XXX FOR FY-XX, QTY XX RECV T/O&ECR DTD (JULIAN)

2) Equipment Excesses Resulting from Modernization. Should force-fed equipment cause an excess, the receiving unit will report the equipment pending resolution of the Table of Organization and Equipment Change Request (T/O&ECR) and/or receipt of disposition instructions. If the item is a replacement for a reportable item, the reporting unit will make compensatory allowance changes to reflect an excess, and current capability (e.g.; if 3 MRC-145's are received for 3 MRC-110's, the allowance for the MRC-110's would now reflect 0). Additionally, a RM4 would now reflect 0). Additionally, a RM4 remark will be submitted explaining the excess and reference the appropriate correspondence. For allowances not resolved with disposition instructions, reduce quantities to corrected amount (e.g.; authorized equal 0). Use the RM4 remark until T/O&ECR is approved or resolved.

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DISP REQUESTED QTY XXX, DATE (JULIAN)

and/or

T/O&ECR FOR QTY XXX, DATE (JULIAN)

3) Equipment Excesses Pending T/O&ECR. The receiving unit will report the equipment pending resolution of the T/O&ECR and/or receipt of disposition instructions. An RM4 remark will be submitted explaining the excess and referencing the appropriate correspondence.

4) Disposition instructions for excess MARES reportable items are requested per reference (d) after internal MSC deficiencies are screened.

5) A request for disposition instructions (WIR) does not authorize a command/unit to reduce the possessed quantities of the MARES Unit Report. When disposition instructions have been received and the appropriate action has been taken, the possessed quantities can then be reduced.

g. Marine Air-Ground Task Force (MAGTF) Reporting

1) The unit providing equipment to a MEU/MEB will first make an LM2 asset change transaction reducing both authorized and possessed quantities by a quantity equal to the number of assets provided. Then submit an RM-4 remark citing only the qty of equipment deployed (DPYD) and the Reporting Unit Code (RUC) of the MAGTF unit:

DPYD QTY XXX TO MXXXXX.

2) The MAGTF unit receiving the equipment will input an LM2 transaction increasing both the authorized and possessed quantities by a quantity equal to the number of assets received, and then submit an RM-4 remark citing only the quantity of equipment received and the RUC of the providing unit:

T/E=XXX, DPYD QTY XXX FR MXXXXX.

3) Close coordination between the unit providing equipment and the MAGTF unit receiving equipment is paramount to ensure accurate reporting.

h. Planned Allowance (P/ALW)

1) P/ALW will only be placed on the LM2 when the unit actually possesses at least one item from the P/ALW.

2) If all P/ALW items have been received, and are still identified on the EAF as a P/ALW, the unit will request the P/ALW be changed to an actual allowance.

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3) If a P/ALW item is received and is still identified on the EAF as a P/ALW, request a modification of allowance (MOA) from the appropriate unit supply office.

4) Increase the auth and poss quantity on the LM2 by the quantity received, "Poss = Auth", and submit the following RM-4 remark:

P/ALW QTY XXX FOR FYXX, QTY XXX RECV AND O/H MOA DTD (JULIAN).

5) Once the planned allowance appears as an actual allowance on the EAF, remove the above RM-4 remark.

i. Special Allowance (SP/ALW)

1) Cite the quantity of equipment authorized and the letter/message authorizing equipment in excess of your unit's T/A to be on hand using the following RM-4 remark:

SP/ALW/QTY XXX/CMC LTR LPP-4/4441/11MAR01.

2) Once the SP/ALW appears on the T/E, cite the quantity of the SP/ALW and the date of the T/E using the following RM-4 remark:

SP/ALW/QTY XXX/T/E 2MAR01.

3) Once the SP/ALW becomes part of the unit's T/E, and is no longer reported on the unit's T/E as a SP/ALW, the RM-4 remark must be removed from the LM2

j. Table of Equipment Allowance File Challenges (T/E-C)

1) When units receive new monthly EAF'S, and a T/E authorized allowance change appears (increases or decreases) for no apparent reason, the owning unit must request a T/E-C to the appropriate unit supply office.

2) Show the EAF challenge quantity and the unit letter in the LM2 using the following RM-4 remark:

T/E-C QTY XXX, MACG-xx LTR 4400/SUP/3MAR01.

3) Units will not adjust the authorized allowance on the LM2 until they have received a response to their T/E Challenge.

4) Once a response is received, and the unit has:

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(a) Won the T/E challenge, the unit must remove the T/E-C RM-4 remark, and will not adjust the auth allow quantity on the LM2.

(b) Lost the T/E challenge, the unit must replace the T/E-C RM-4 remark with an appropriate RM-4 remark, if required, and either increase or decrease the authorized quantity on the LM2 as listed on the challenged EAF.

k. Corrosion Prevention and Control Program (CPAC):

1) Units that evacuate equipment under the CPAC program for work outside a 50-mile radius of the owning unit location will report the equipment as Not Mission-Capable Maintenance (NMCM) regardless of the condition of the equipment. Furthermore, all equipment in Corrosion Category "C" (see para 8007 of this manual), regardless of distance, will be reported as NMCM. The equipment will be documented in the RM4 remarks by the following:

CPAC QTY XXX, DATE (JULIAN)

2) Upon evacuation of the equipment, use the following RM-4 Remark:

CPAC QTY XXX, SERIAL NUMBER, DATE (JULIAN) TO M66666.

3) Ensure the UIC of "M66666" is used as the holder of the equipment in the RM-4 remark to identify to all concerned (ALCON) that this equipment is undergoing CPAC repairs.

l. Inter-service Support Agreement (ISSA)

1) When an Inter-service Support Agreement (ISSA) is used, an organizational ERO must be opened by the owning unit using job status "38" (Evc-Hech) and a destination account of M66666.

2) In addition, an RM4 remark will be submitted for readiness reportable equipment stating the actual location of the item:

"QTY XXX AT MXXXXXX/LOCATION".

3. Contractor Furnished Materiel. Commands/units that hold readiness reportable equipment furnished by a contractor will not report that equipment on their MARES Unit Report.

4. Reconciliation between the Mechanized Allowance List and the MARES report will be conducted in accordance with reference (f).