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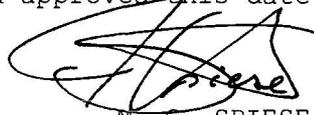
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From: Commandant of the Marine Corps  
To: Distribution List

Subj: AIRCRAFT MAINTENANCE TRAINING AND READINESS (T&R) PROGRAM (AMTRP)

Encl: (1) AMTRP Manual

1. Purpose. To publish training standards and regulations regarding the training of Marine Corps aircraft maintenance technicians.
2. Information. Significant T&R concepts included in this Manual are as follows:
  - a. Aircraft Maintenance T&R Program overview.
  - b. Aircraft Maintenance T&R definitions, policies, and processes.
  - c. Maintenance Department Current Readiness Reporting.
  - d. Aircraft Maintenance T&R Program Administration.
  - e. Aircraft Maintenance T&R Manual Syllabus Structure and Development.
3. Action. Commanders will ensure that aircraft maintenance training, qualifications, designations, and licensing are accomplished per the instructions and guidance in this Manual. CG TECOM ATB shall identify the requirements for course(s) that satisfy event training.
4. Recommendations. Recommended changes to this publication are invited, and may be submitted via the appropriate chain of command to: Commanding General, Training and Education Command, Aviation Training Branch via using standard naval correspondence or the Automated Message Handling System using the following plain language address: CG TECOM QUANTICO VA ATB.
5. Reserve Applicability. This Manual is applicable to the Marine Corps Total Force.
6. Certification. Reviewed and approved this date.

  
M. G. SPIESE  
By direction

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**AIRCRAFT MAINTENANCE  
TRAINING AND READINESS PROGRAM**

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CHAPTER 1  
AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM  
OVERVIEW

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**CHAPTER 1**  
**AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM**

1.1. PURPOSE:

1.1.1. The Training and Readiness program provides the Marine Air-Ground Task Force (MAGTF) commander with trained aircrew and maintenance Marines within the Aviation Combat Element (ACE); capable of accomplishing unit core Mission Essential Tasks (METs). The Aircraft Maintenance Training and Readiness Program (AMTRP) provides Marine aviation with a tool to construct an effective unit-level maintenance training program and establishes policy for the development, execution, and standardization of all Marine aircraft maintenance T&R manuals.

1.1.2. The AMTRP facilitates standardized training validated by subject matter experts (SMEs). Training tasks are based on specific requirements and performance standards designed to provide aircraft maintenance personnel with the skills and capabilities necessary to maintain aircraft and systems required to produce a MET-Ready unit.

1.1.3. The goal of the AMTRP is to increase maintenance department capabilities by providing commanders with standardized programs of instruction for training maintenance personnel through MOS community-specific Training and Readiness (T&R) syllabi. These syllabi are designed to facilitate the attainment and maintenance of proficiency in aircraft Systems and Subsystems as well as to standardize the attainment and sustainment of Maintenance Leadership within the department.

1.1.4. In conjunction with the Naval Aviation Maintenance Program (NAMP), the AMTRP governs T&R policies and standards for USMC aircraft maintenance Marines and shall replace the Maintenance Training Management and Evaluation Program (MATMEP). The AMTRP provides the structure, policy, and readiness metrics required to standardize maintenance training and identifies required resources to aid Marine aircraft maintenance departments in training, developing, and sustaining aircraft maintenance MOS-specific skills. These skills contribute directly to maintaining Ready Basic Aircraft and Ready for Tasking Aircraft (RBA/RFT). The AMTRP ensures like-unit maintenance departments have SME-determined syllabi that adhere to NAMP guidance and are approved by Marine Forces, Commanding General Training and Education Command (CG TECOM), and Deputy Commandant for Aviation (DC AVN). These syllabi provide standardized metrics to evaluate individual units (and detachments) through comparison of actual-to-required numbers of System Skill Proficient (SSP) Marines and Qualified/Designated/Licensed (QDL) individuals required to efficiently and effectively sustain maintenance expertise.

1.1.5. The AMTRP applies Marine Corps Training principles and the Systems Approach to Training (SAT) to satisfy the training requirements of commanders to accomplish their wartime mission. Guidance concerning unit training management and the process for establishing effective unit training management programs are contained in Marine Corps Reference Publication (MCRP) 3-0A, *Unit Training Management Guide (UTM)*, and form the basis for the development of this directive. Familiarity with MCRP 3-0A will enhance understanding of the SAT used in T&R development and Marine Corps UTM principles.

1.1.6. The remainder of this chapter provides an overview of the AMTRP, its support to the overall Marine aviation mission, and standardization policy for the structure, organization, and content of aircraft maintenance community T&R

manuals. MOS Community T&Rs shall adhere to the policy, content, sequence, and format requirements delineated herein. Aircraft maintenance MOS communities shall comply with the policies and processes of the AMTRP when developing or updating aircraft community T&R Manuals and when executing syllabus training and training management.

1.2. AIRCRAFT MAINTENANCE T&R PROGRAM:

1.2.1. General. The AMTRP implements a comprehensive, System Skills and Qualifications/Designations/Licensing (QDL)-based training system focused primarily on creating and sustaining requisite numbers of individuals who possess System Skill expertise and required QDLs necessary for sustained unit (or detachment) level maintenance operations.

a. Maintenance Department Proficiency. The AMTRP represents the collaborative effort of Marine aircraft maintenance SMEs who have considered NAMP training requirements, daily maintenance operations, and required QDLs to establish a set of standard metrics from which to measure an "average" community-specific maintenance department. These standards describe and define departmental capabilities and requirements necessary to develop and maintain like-unit proficiency in System Skills and QDLs.

b. Individual Proficiency. The AMTRP is designed to produce individual proficiency in maintenance training Tasks. These Tasks are based on specific requirements and performance standards to ensure aircraft maintenance personnel attain and maintain required knowledge and skills in MOS-specific aircraft systems.

1.2.2. Readiness:

a. Defense Readiness Reporting System (DRRS). Defense Readiness Reporting System (DRRS) is a Department of Defense (DoD) system of record for unit readiness reporting created to provide an objective, accurate, and timely assessment of unit capabilities. Reporting is based on unit capability to accomplish specific tasks, within an established Mission Essential Task List (METL) providing a common baseline for unit readiness reporting (see DoD Directive 7730.65). Each MET has one or more associated output standards which are used as reporting criteria in DRRS, at the unit level. These outputs are the key performance measures for readiness reporting. The maintenance T&R Program aligns with DoD and Joint Warfighting requirements by prescribing training standards required to produce Ready Basic Aircraft (RBA) and Ready Basic Mission Sets (RBM) for training and combat as depicted in Figure 1-01.

b. Marine Aviation Current Readiness Improvement Program. Core Competent Units require trained aircrew, ready aircraft and systems, and capable maintainers. The term, "ready for tasking" is used to describe the readiness measurement used by the USMC Current Readiness program.

(1) Ready for Tasking (RFT). RFT is not a specific aircraft configuration. RFT calculations result from combining Ready Basic Aircraft (RBA) and specific configurations of mission systems. RFT sets are defined as sets of equipment that are a combination of the ready airframe and mission systems. The following definitions apply:

(a) Ready Basic Aircraft (RBA). A Mission Capable Aircraft that is functional check flight (FCF) complete, capable of day or night

Instrument Meteorological Conditions (IMC) field operations, and has the necessary operational communication, Identification, Friend or Foe (IFF), navigation, flight and safety systems required by applicable NATOPS and FAA regulations.

(b) Ready Basic Mission Set(s) (RBM). Common mission systems that are required to support training or employment of a majority of core/mission skills in execution of all Mission Essential Tasks for each T/M/S.

(c) Ready MET Sets. Those systems, not already captured as RBA or RBM, that are required to support training or employment of a particular core/mission skill in execution of unit METs.

(2) Detailed information and guidance regarding this paragraph can be found in the Marine Aviation Current Readiness Improvement Program Guidebook.

c. Aviation Logistics Electronic Requirements Training System (ALERTS). The Deputy Commandant for Aviation (DC AVN) has developed procedures for measuring and reporting maintenance training readiness in terms of Qualifications, Certifications (Ordnance), Designations, MATMEP levels, and Licensing. System Skill Proficiency metrics shall replace MATMEP levels in this report. If a unit meets the standards set forth in the AMTRP, Maintenance Departments should be confident the unit possesses the knowledge and skills required for the unit to achieve its Ready Basic Aircraft/Ready for Tasking (RBA/RFT) goals required to achieve unit MET output standards. ALERTS will continue to be refined by each T/M/S and shall be incorporated into the approved maintenance training management system.

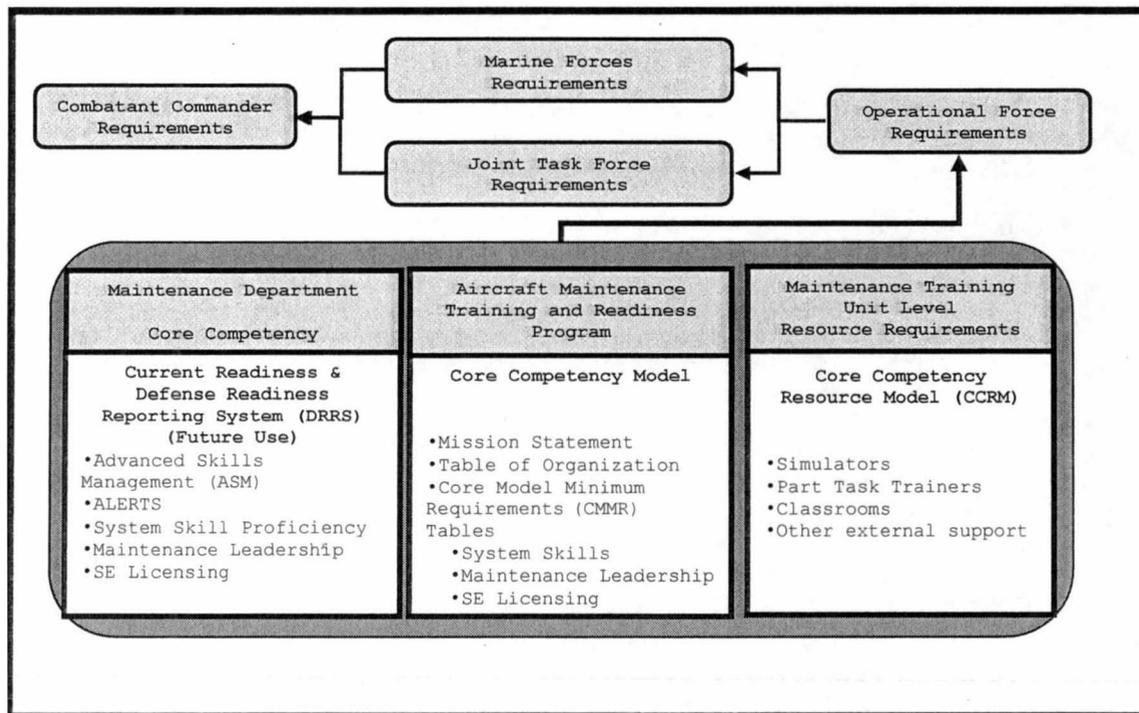


Figure 1-01.--Aircraft Maintenance T&R Program and Unit Readiness.

d. Advanced Skills Management (ASM). As of publication of this manual, Advanced Skills Management (ASM) is the approved training management system for aircraft maintenance. The AMTRP requires a web-based, state-of-the-art training management system capable of deployment and detachment operations both afloat and ashore. The ASM system must be updated and tailored to the AMTRP and must become flexible enough to account for the realities of On-the-Job Training (OJT) task logging and aircraft system updates from NALCOMIS. The ASM system must provide a capability to track task completion and must format readiness data in concert with AMTRP guidance, operating forces desires, and DC AVN requirements.

1.2.3. Resources:

a. The AMTRP provides a means for identifying external resources required to ensure training requirements can be accomplished.

b. The Core Competency Resource Model (CCRM), originally designed to support the aviation Flying Hour Program and expanded to include external resources such as ranges, ordnance, and targets, etc., shall be tailored to include AMTRP external resource requirements such as class room spaces, simulators, Part Task Trainers (PTTs), Interactive Multimedia Instruction (IMI), Marine Aviation Training Systems Site (MATSS) capabilities, etc.

1.3. T&R PROGRAM OVERSIGHT:

1.3.1. T&R Program Orders/Directives. The AMTRP shall be governed under Marine Corps Order (MCO 4790.23), one overarching Navy-Marine Corps (NAVMC) Publication (NAVMC 4790.01) titled the Aircraft Maintenance Training and Readiness Program Manual, and a series of other NAVMC Publications reflecting MOS community specific T&R syllabi that document specific MOS training requirements within the AMTRP.

a. MCO 4790.23. The Aircraft Maintenance Training and Readiness Program (AMTRP) order establishes AMTRP authority to govern the training of specified Marine Corps Aircraft Maintenance personnel in concert with the NAMP.

b. NAVMC 4790.01. The Aircraft Maintenance Training and Readiness Program (AMTRP) Manual provides the policy, processes, guidance, and standardization criteria for community aircraft maintenance MOS T&R manuals.

c. NAVMC 4790.XX (Series). Aircraft maintenance T&R manuals contain individual training syllabi for applicable MOSs within an MOS community. Communities must develop their T&Rs in accordance with the AMTRP. T&R manuals are reviewed and updated at a minimum, on a triennial basis. Training and Education Command, Aviation Training Branch (TECOM (ATB)) handles the administrative management of all aircraft T&Rs in concert with MOS syllabus sponsors (See Chapter 4).

d. MOS NAVMC Structure. Maintenance MOS T&Rs shall be structured based upon the following:

**Aircraft Specific, Non-Aircraft Specific MOSS T&R Structure**

Aircraft Community  
(if applicable)

-  
Maintenance Division

-  
MOS(s) (Aircraft; Non-aircraft specific)

1.4. AIRCRAFT MAINTENANCE T&R MOS APPLICABILITY:

1.4.1. The AMTRP applies to MOSSs that are specific to a particular aircraft and to MOSSs that apply to multiple aircraft but have differing T&R requirements. Tables 1-01 through 1-03 depict tactical aircraft community specific maintenance MOSSs with respect to T&R applicability. Shaded MOSSs are non-aircraft specific.

Table 1-01.--Fixed Wing MOSSs

Fixed Wing -- T&R Major Occupational Specialties Represented												
	PL	AF	SS	C/N	ELEC	ECM	ORD	IMRL	MA	FE	MC	QA
AV-8B	6212	6252	6282	6312	6332	-	6531	6042	6046	6048	6012	6018
F/A-18A/B/C/D	6217	6257	6287	6317	6337	-	6531	6042	6046	6048	6012	6018
EA-6B	6213	6253	6283	6313	6333	6386	6531	6042	6046	6048	6012	6018
KC-130J	6216	6256	6286	6316	6336	-	6531	6042	6046	6048	6012	6018
F-35B	6218	6258	6288	-	6338	-	6531	6042	6046	6048	6012	6018

Table 1-02.--Rotary Wing MOSSs

Rotary Wing -- T&R Major Occupational Specialties Represented											
	MECH	AF	CC	C/N/E		ORD	IMRL	MA	FE	MC	QA
CH-46E	6112	6152	6172	6322		6531	6042	6046	6048	6012	6018
CH-53D/E/K	6113	6153	6173	6323		6531	6042	6046	6048	6012	6018
H-1 (All)	6114	6154	6174	6324		6531	6042	6046	6048	6012	6018

Table 1-03.--Tiltrotor MOSSs

Tiltrotor -- T&R Major Occupational Specialties Represented											
	MECH	AF	CC	SS	C/N/E	ORD	IMRL	MA	FE	MC	QA
MV-22	6116	6156	6176	6286	6326	6531	6042	6046	6048	6012	6018

1.5. AIRCRAFT MAINTENANCE T&R CORE COMPETENCY MODEL:

1.5.1. Core Competency Model. The T&R program Core Competency Model, sometimes referred to as the Core Model, establishes the basic structure for each community T&R.

1.5.2. Maintenance Department Core Competency. A core competent maintenance department maintains the T&R requirement for System Skill Proficiency, Maintenance Leadership, and SE licensing as identified in the Core Model Minimum Requirements (CMMR) tables. These metrics are SME-generated and Wing/MARFOR/DC AVN approved for each aircraft maintenance community. For more on Maintenance Department Core Competency see paragraph 2.3.2 of this manual.

1.5.3. Core Model Elements. The maintenance department core model consists of the following five elements: Mission Statements, Table of Organization data, and three CMMR Tables. Together, these elements provide a structure from which to identify, build, and validate training and resource requirements, and a standard for measurement of unit maintenance training readiness. See Chapter 5 of this manual for specific guidance on incorporating these elements into MOS community T&Rs.

a. Mission Statement. A clear and concise description of the unit's/MOS's purpose that contains required capabilities the unit or individual are expected to provide the gaining force commander during combat or contingency operations.

b. Table of Organization. The core model Table of Organization (T/O) data provides a quick-look at maintenance division MOS manning requirement structure at the squadron, squadron (-), and detachment levels for both combat deployable and trainer squadrons.

c. Core Model Minimum Requirement (CMMR). The CMMR establishes the unit requirement to sustain two-shift maintenance during peacetime, wartime, or contingency operations. CMMR is defined in terms of numbers of individuals required to be SSP, Qualified or Designated as Maintenance Leaders, and licensed on unit-critical SE.

d. Core Model Minimum Requirement Tables. Training and Readiness CMMR Tables provide a standardized format to display unit level Systems Skill Proficiency, Maintenance Leadership, and SE Licensing requirements. Units that plan for and provide standardized detachments list appropriate CMMR values for each size sub-unit to sustain two-shift maintenance in addition to the total unit CMMR. The following CMMR Tables are included in each MOS community T&R (See Chapter 5 for more details on CMMR Tables and System, Subsystem, and Task Proficiency):

(1) System Skill Proficiency CMMR. The CMMR for System Skill Proficiency is defined in minimum numbers of maintainers required to execute maintenance to meet the commander's requirements. Table 1-04 depicts the relationship between aircraft systems, the MOS required to perform maintenance on the system, and the number of individuals required to sustain two-shift maintenance.

Table 1-04.--[T/M/S] Community System Skill Proficiency CMMR Matrix (Example)

[AV-8B/TAV-8B] SYSTEM SKILL PROFICIENCY	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Inspections (INSP)	26	38	30	45	14	17	11	17	11	17	30	35
Airframe (AIRF)	26	38	30	45	14	17						
Crew Station (CREW)												
Alighting/Launching System (LAUN)												
Dir Flight Cntrl/Lift/Drag Sys (FLTC)			30	45			11	17	11	17		
Escape Systems (ESCP)					14	17						
[AV-8B/TAV-8B] SYSTEM SKILL PROFICIENCY	SQUADRON MINUS											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Inspections (INSP)	13	19	30	45	10	12	8	10	8	10	10	6
Airframe (AIRF)	13	19	30	45	10	12						
Crew Station (CREW)												
Alighting/Launching System (LAUN)												
Dir Flight Cntrl/Lift/Drag Sys (FLTC)			30	45			8	10	8	10		
Escape Systems (ESCP)					10	15						
[AV-8B/TAV-8B] SYSTEM SKILL PROFICIENCY	SQUADRON DETACHMENT											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Inspections (INSP)	18	25	30	45	4	5	4	7	4	7	10	6
Airframe (AIRF)	18	25	30	45	4	5						
Crew Station (CREW)												
Alighting/Launching System (LAUN)												
Dir Flight Cntrl/Lift/Drag Sys (FLTC)			30	45								
Escape Systems (ESCP)					4	5	4	7	4	7		

V=Combat Deployable Sqdn      T=Trainer Sqdn

(a) System Skill Proficiency. System Skill Proficiency (SSP) refers to the successful completion of all SME-determined Subsystem Skill (OJT and/or NAMP) Tasks (2000-4000) within a given aircraft System. Tables 1-05 and 1-06 show a complete view of a single System, Subsystem, and Task structure for OJT and NAMP, respectively.

Table 1-05.--System Skill/Subsystem Skill/Task Structure (Example)

Work Unit Code: 42000 (KC-130J)		
ELECTRICAL POWER DISTRIBUTION (ELEC)		
PRIMARY A/C POWER 42110	SECONDARY A/C POWER 42510	DIRECT CURRENT POWER 42910
2000-2013 3000-3014 4000-4005	2030-2033 7030-7033	2060-2075 7060-7080

(b) Subsystem Skill Proficiency. Subsystem Skill Proficiency refers to the completion of all SME-determined Subsystem Skill (OJT and/or NAMP) Tasks (2000-4000) within a given aircraft Subsystem. Once all Subsystem Skills and/or applicable NAMP Tasks are successfully completed, and a Subsystem-level evaluation is signed-off by a CDI (or listed sign-off authority), the individual is Subsystem Skill Proficient (SSSP).

1. A SME-determined combination of Aircraft Subsystem Tasks and/or NAMP Tasks will provide the requirement for Subsystem Skill Proficiency as well as for standardized Qualification and Designation syllabi. (See Chapter 5 of this manual for more detail)

Table 1-06.--NAMP/NAMP Program/NAMP Task Structure (Example)

NAMP TECHNICAL DIRECTIVES COMPLIANCE PROGRAM						
INDOC 1000-Level	BASIC 2000 Level	INTERMEDIATE 3000 Level	ADVANCED 4000 Level	MGMT 5000-Level	QDL 6000-Level	FUTURE USE
1000-1010	2000-2005	3000-3005	4000-4007	5000-5006	NA	FUTURE USE

(c) Task Proficiency. Task Proficiency is defined as specific OJT or NAMP action(s) required to be performed in order to attain/maintain necessary knowledge and skill on a specific Subsystem or NAMP Program. An individual is considered proficient in a given Task if the individual has successfully executed and remains proficient in the Task in accordance with the published T&R Task Performance Standard(s).

(2) Maintenance Leadership CMMR. Each unit must build and maintain Maintenance Leaders with the knowledge, leadership skills, and qualities required to perform the appropriate level of maintenance. Table 1-07 focuses on unit-critical, readiness-reportable Qualifications and Designations required to sign-off maintenance actions as complete or to validate aircraft as safe for flight (SFF). The table depicts the SME-determined number of these maintenance leaders required to meet the CMMR standard, for the complete squadron, within each Maintenance Division. For more information on how to build Maintenance Leadership CMMR tables, refer to Chapter 5 of this manual.

Table 1-07.-[T/M/S] Community Maintenance Leadership Unit CMMR (Example)

Maintenance Leadership	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
CDI	1	1	8	1	3	3	5	1	5	1		
CDQAR	4	6	4	6	3	4	1	2	1	2		
QAR	2	3	2	2	1	1	1	2	1	2		
QASO					3	4						
SFF	2	2	2	2			1	2	1	2		
PC	2	3										
HIGH POWER	4	6										
LOW POWER	8	1	4	6	2	2	2	4	2	4		

V=Combat Deployable Sqdn      T=Training Sqdn

(3) SE Licensing CMMR. Each unit must build and maintain enough SE licensed individuals with the knowledge and skills required to handle and properly utilize support equipment appropriate to the maintenance requirement. Table 1-08 provides unit commanders with a community-specific perspective on SE licenses considered critical to maintenance department ability. The CMMR for SE licensing is defined in minimum numbers of licensed individuals required to meet training and war time requirements. The SE Licensing CMMR populates Table 1-08 for specific Work Centers and allows for added licensure requirements that are not Work Center specific. For more information on how to build SE Licensing CMMR tables, see Chapter 5 of this manual.

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Table 1-08.--[T/M/S] Community SE Licensing Unit CMMR (Example)

SUPPORT EQUIPMENT	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6232		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						
TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER											13	27
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								
AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		

V=Combat Deployable Sqdn      T=Trainer Sqdn

CHAPTER 2  
AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM  
DEFINITIONS, POLICIES, AND PROCEDURES

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**CHAPTER 2**  
**AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM**  
**DEFINITIONS, POLICIES, AND PROCESSES**

2.1. PURPOSE. To provide definitions, policies and processes for Aircraft Maintenance Training and Readiness Program (AMTRP) application and use.

2.2. SCOPE. The AMTRP provides a mechanism for building SME-determined and validated maintenance OJT and NAMP training tasks required to perform in each MOS. Additionally, these OJT and NAMP tasks assist in building the standards for the attainment of maintenance System Skill Proficiency, Qualifications and Designations, and Support Equipment (SE) Licensing. The definitions, guidance, policies and processes in this chapter will assist units in their understanding of the functions of the T&R and the rules that exist to assist units in the execution of the T&R program.

2.3. MAINTENANCE TRAINING PHILOSOPHY AND DEPARTMENT CORE COMPETENCY:

2.3.1. Training Philosophy. Individual training and the mastery of System Skill Tasks (2000-4000) serve as the building blocks for attainment of Maintenance Department Core Competency. Individual MOS training programs of instruction (POIs) are based upon a logical progression of increasingly challenging maintenance tasks.

2.3.2. Maintenance Department Core Competency. From a training perspective, a core competent maintenance department maintains, at a minimum, the Core Model Minimum Requirement (CMMR) for System Skills, Maintenance Leadership Qualifications and Designations, and critical SE licensing. System Skill Proficiency is attained through technical, OJT, and NAMP training. Maintenance Leadership qualifications and designations are attained through a combination of OJT/NAMP Task completion and specific Qualification/Designation/License (QDL) syllabi requirements. Licenses are attained through standardized licensing requirements as governed by COMNAVAIRAIRFORINST 4790.2A.

2.3.3. On the Job and NAMP Training. Once an individual completes "A" and/or "C" school and is assigned to a unit, the individual's MOS training is governed by the AMTRP and the NAMP. System Skill Proficiency is attained through completing and remaining proficient in T&R OJT and NAMP training Tasks. See Chapter 5 of this manual for more detail.

2.4. SYSTEM SKILL PROFICIENCY:

2.4.1. Attainment, Loss, and Regain of Proficiency:

a. Attaining System Skill Proficiency:

(1) System Skill Proficiency refers to the successful completion of all Subsystem Skill OJT Tasks (2000-4000) within a given System and/or the successful completion of all appropriate level NAMP Tasks. Once all Subsystem Skill OJT and/or NAMP Tasks are completed and a System-level evaluation is successfully accomplished, the individual is "certified" as System Skill Proficient (SSP). If approved by the Division Officer or Division Chief, the individual is then granted SSP Qualification.

(2) A non-CDI individual, who is System Skill Proficient in one or more of the Systems that comprise the MOS, has a very high level of expertise in that specific System. This individual has the knowledge and skill required to perform maintenance on that System(s) without supervision and may be trusted to sign-off T&R Tasks (at the 2000 and 3000 performance levels), if the T&R Task Sign-off Authority allows. T&R Task sign-off authority should not be confused with MAF sign-off authority. See Chapter 5 and specific MOS T&R Tasks for more detail.

b. Attaining Subsystem Skill Proficiency:

(1) Subsystem Skill Proficiency (SSSP) refers to the successful completion of all T&R OJT Tasks (2000-4000) within a single Subsystem (2000-4000) and/or the successful completion of all applicable level NAMP Tasks. Once all Subsystem Skill and applicable NAMP Tasks are successfully completed, and a Subsystem-level evaluation is signed-off by the T&R sign-off authority, the individual is Subsystem Skill Proficient.

(2) Subsystem Skill Proficient individuals have a very high level of expertise in a given Subsystem. Although each MOS is different, there is a general expectation that SSSP (in all Subsystems within a given System) is a prerequisite to obtaining a CDI designation. This individual has the knowledge and skill required to perform maintenance on that Subsystem(s) without supervision and may be trusted to sign-off T&R Tasks (at the 2000 and 3000 performance levels) if the T&R Task Sign-off Authority allows. T&R Task Sign-Off Authority should not be confused with MAF Sign-Off Authority. See Chapter 5 of this manual and specific MOS T&R Tasks for more detail.

c. Loss of System/Subsystem Skill Proficiency:

(1) Proficiency-based Loss of SSP/SSSP. Individuals may lose their SSP/SSSP status by failing to remain proficient in accordance with their community T&R. Once SSP/SSSP is lost, the individual no longer has the authority to act in the capacity he/she had previously in accordance with the community T&R. Individuals must follow the process for regaining SSP/SSSP.

(2) Regaining SSP/SSSP Due to Loss of Proficiency. Individuals who lose SSP/SSSP due to loss of proficiency shall accomplish the "R-coded" Tasks as delineated in the SSP/SSSP syllabus (refer to chapter 5 of this manual). These tasks shall be observed and signed-off by the appropriate T&R Task Sign-off Authority.

d. Loss of SSP/SSSP Due to Absence from the Work Center:

(1) Loss of SSP/SSSP Due to Absence from the Work Center. Individuals who depart the Work Center through FAP, PCS, etc. may lose their SSP/SSSP status depending on the duties being performed and the duration of their absence.

(a) Individuals who are performing duties outside their MOS but within the maintenance department (i.e. FAP to Maintenance Control or Tool Room) for greater than or equal to 730 days shall lose their SSP/SSSP privileges.

(b) Individuals who are performing duties outside their MOS and outside the maintenance department (i.e. non-aviation related duties such as Drill Instructor duty, Recruiting, etc.) for greater than or equal to 270

days shall lose their SSP/SSSP privileges.

e. Regaining SSP/SSSP Upon Return to the Work Center. Individuals who lose an SSP/SSSP due to an absence from the work center shall regain their SSP/SSSP, by performing "R-coded" tasks, based upon the amount of time spent out of the work center and in accordance with the community T&R. These R-coded Tasks shall be observed and signed-off by an individual who meets or exceeds the Task Sign-off Authority for each Task. See Table 2-01.

Table 2-01--System/Subsystem Skill Proficiency Refresh Requirement

IN/OUT Maintenance Department	Re-Demonstrate SSP/SSSP R-Coded Tasks Required*
IN	≥730 Days
OUT	≥270 Days
≥ - Greater than or equal to symbol * Re-Demonstration intervals may vary with certain NAMP programs/syllabi. The AMTRP, where it is more restrictive than the NAMP, shall be adhered to. If the AMTRP does not address a specific program, the NAMP guidelines shall be adhered to.	

f. Changes of Command, Deployments, Transfers, Transitions, Conversions. Since community standardized, CG TECOM-approved syllabi are used to grant SSP/SSSP, individuals shall not be required to re-demonstrate T&R Tasks or undergo the re-certification process prior to performing those same SSP/SSSP privileges under a new command, in a deployed environment, when transferred to a detachment, or in the case of transfer to a like Type/Model/Series (T/M/S) unit. However, Transitions or Conversions to a new T/M/S aircraft may require additional training. The guidance provided below is meant to assist in standardizing the method by which SSP/SSSP are handled in aircraft maintenance.

(1) Change of Commanding Officer. All System Skill and Subsystem Skill Proficiency honored under a previous command shall be honored by the new Commanding Officer.

(2) Deployments with Other Units or Detachments. All System Skill and Subsystem Skill Proficiency honored under the previous command shall be honored by the new Commanding Officer (Detachments, OIC).

(3) Transfers to Like-units. With the exception of local procedure changes, SSP/SSSP privileges remain in effect for Permanent Change of Station (PCS) or Permanent Change of Assignment (PCA).

(4) Transitions to New Type/Model Aircraft. Aircraft System Skill and Subsystem Skill Proficiency are Aircraft community specific and shall not be applied to a new T/M/S aircraft. Individuals shall follow the T/M/S MOS syllabi to attain System Skill and Subsystem Skill Proficiency in the new platform.

(5) Conversions to New Series Aircraft. Individuals undergoing conversion to a new series aircraft (AH-1W to AH-1Z, UH-1N to UH-1Y, etc.) shall complete the series conversion syllabus for the specific System Skill and Subsystem Skill Proficiency.

## 2.5. CERTIFICATIONS:

2.5.1. General. As individuals gain knowledge and skill in their MOS, opportunities become available to attain leadership Qualifications and Designations such as Collateral Duty Inspector (CDI), Quality Assurance Representative (QAR), etc. Attainment is based upon a combination of T&R OJT and NAMP Task proficiency and completion of specific certification processes leading to Qualification and/or Designation (QD).

### 2.5.2. Certifications:

a. Definition. A certification is written testimony from competent instructional authority that the certified individual has successfully undergone an evaluation (certification process) and has the knowledge, skills, and experience to act in a specific capacity (COMNAVAIRFORINST 4790.2A). The certification is the last step in a process prior to granting an individual either a qualification (proficiency-based) or a designation, which is command-specific and remains in effect for the duration of an individual's unbroken time in a unit.

b. Certification Process. The certification process includes all T&R Tasks (OJT and NAMP) encompassed within the attainment of Subsystem or System Skill Proficiency, Qualification or Designations, and required tests or boards. Once the certification process is complete, individuals are "certified eligible" to possess the particular Qualification, Designation, or License they are working to attain. The term "Certified" does not equate to Qualified or Designated. Only when the appropriate authority signs-off the Qualification, Designation or License, is an individual authorized to perform the duties to which those QDLs pertain.

For Example: *Upon completion of all the NC-10 licensing prerequisites (certification process), SNM is "certified" (eligible) to be licensed.*

## 2.6. QUALIFICATIONS:

2.6.1. Definition. In the AMTRP, a Qualification is defined as the authority granted to an individual to perform specific Task(s), based upon having successfully completed an AMTRP Qualification syllabus (and any remaining elements of the Certification Process) that ensures the individual possesses the skills, knowledge, experience, and judgment required to perform assigned Task(s). Qualifications are proficiency-based and remain in effect as long as individuals remain proficient in all Qualification syllabus Tasks.

2.6.2. Attaining Qualifications. Individuals shall complete all T&R Qualification syllabus Tasks and any other certification requirements. Once the certification process is complete, the Maintenance Officer or Commanding Officer (if applicable) may grant the Qualification.

2.6.3. Qualifications and T&R Task Proficiency. Qualifications remain in effect as long as the individual possessing the Qualification remains proficient in all Qualification Tasks in accordance with T&R and NAMP guidelines. For example, individuals who are qualified as Plane Captains must re-demonstrate proficiency at least once per year. If a Plane Captain does not re-demonstrate proficiency within the re-demonstration interval, the

Plane Captain Qualification is expired and the individual must follow the T&R (within NAMP guidelines) procedures for regaining that Qualification.

2.6.4 Loss of Qualifications:

a. Proficiency-based Loss of Qualification. Individuals may lose their qualifications by failing to maintain proficiency in all Qualification syllabus Tasks in accordance with the community T&R, and/or the NAMP. Once a Qualification is lost, the individual no longer has the authority to act in the capacity the individual had while qualified. The individual must follow the process for regaining qualification.

b. Revocation or Suspension. Qualifications may be revoked or suspended in accordance with AMTRP/NAMP policies.

(1) Revocation. A revocation is the complete removal of a Qualification from an individual. Current granting authority shall assign OJT, NAMP and/or additional tasks required to reinstate the qualification. The individual shall not perform the duties for which the individual was qualified until the Qualification has been reinstated.

(2) Suspension. A suspension is the temporary removal of a Qualification from an individual. The Maintenance Officer shall determine when a suspended Qualification may be reinstated.

2.6.5. Regaining Qualifications:

a. Regaining Qualifications Due to Loss of Proficiency. Individuals who lose a Qualification due to loss of proficiency shall accomplish the "R-coded" Tasks as delineated in the Qualification syllabus. These tasks shall be observed and signed-off by the appropriate T&R Task sign-off authority.

b. Regaining Qualifications Upon Return to the Work Center. Individuals who lose a Qualification due to an absence from the work center for an extended period of time (see Table 2-02), shall regain their Qualification(s) by accomplishing the "R-coded" Tasks as delineated in the community Qualification syllabus. These re-Qualification tasks shall be observed and signed-off by an individual who meets or exceeds the Task Sign-Off Authority for each Task.

Table 2-02--Qualification Re-demonstrate Requirement due to Absence from Work Center

IN/OUT Maintenance Department	Re-Demonstrate Qualification R-Coded Tasks Required*
IN	≥730 Days
OUT	≥270 Days
≥ - Greater than or equal to symbol * Re-Demonstration intervals may vary with certain NAMP programs/syllabi. The AMTRP, where it is more restrictive than the NAMP, shall be adhered to. If the AMTRP does not address a specific program, the NAMP guidelines apply.	

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2.6.6. Changes of Command, Deployments, Transfers, Transitions, Conversions. The guidance provided below is meant to assist in standardizing the method by which Qualifications are handled in aircraft maintenance.

a. General. Since community syllabi have been standardized, and CG TECOM-approved certification processes used to grant T&R Qualifications, individuals shall not be required to re-demonstrate T&R Tasks or undergo the re-certification process prior to performing those same qualification duties while: under a new command, in a deployed environment, when transferred to a detachment, or in the case of transfer to a like Type/Model/Series (T/M/S) unit. However, Transitions or Conversions to a new T/M/S aircraft may require additional training.

b. Change of Commanding Officer. All Qualifications honored under a previous Commander shall be honored by the new Commanding Officer unless cause for revocation or suspension exists. There is no requirement for the newly assigned Commanding Officer to re-sign individual Qualifications. Commanders shall provide documentation to carry-over Qualifications and Designations to satisfy requirements.

c. Deployments with Other Like-T/M/S Units or Detachments. All Qualifications honored under a previous command shall be honored by Detachment/Deployment Commanding Officers unless cause for revocation or suspension exists. Commanders shall provide documentation to update or carry-over Qualifications and Designations to satisfy requirements.

d. Qualifications and Transfers to Like-Units. For Permanent Change of Station (PCS) or Permanent Change of Assignment (PCA), individuals who were Qualified for specific tasks in previous commands (i.e. Plane Captain) shall not be required to undergo T&R re-certification. Individuals shall undergo training for any local procedural differences, and may, upon successful interview (if required), be re-qualified. Individuals must be re-qualified prior to performing specific Qualification duties

e. Qualifications and Transfers to New Type/Model Aircraft:

(1) Aircraft-Specific Qualifications. Individuals undergoing transition or conversion to a new Type/Model aircraft (F/A-18 to MV-22, CH-46E to CH-53E, etc.) shall complete the T&R certification process for specific Qualifications. Qualifications that are aircraft-specific shall not be applied to Qualifications under a new Type/Model aircraft unless specifically authorized by the community T&R.

(2) Non-Aircraft-Specific Qualifications. Qualifications that are not aircraft-specific may be applied to qualifications under new Type/Model aircraft (Example: ESDP [NAMP]).

f. Qualifications and Transitions to New Series Aircraft:

(1) Aircraft-Specific Qualifications. Individuals undergoing transition to a new series aircraft (AH-1W to AH-1Z, UH-1N to UH-1Y, etc.) shall complete the series conversion certification process for the specific Qualification. Qualifications that are aircraft-specific shall not be applied to qualifications under a new series aircraft unless specifically authorized by the community T&R.

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(2) Non-Aircraft-Specific Qualifications. Qualifications that are not aircraft-specific may be applied to Qualifications under new Series aircraft (Example: ESD [NAMP]).

## 2.7. DESIGNATIONS:

2.7.1. Definition. A Designation is defined as authority granted to an individual, for specific duty(ies) on the basis of proven maintenance aptitude through completion of the certification process. Once the certification process is complete, the Maintenance Officer or Commanding Officer may grant the Designation.

2.7.2. Qualification Vs Designation. The Qualification differs from a Designation in that Qualifications may expire based on maintenance Task delinquency or calendar deadlines where Designations do not expire. Designations are command-specific and in effect for the duration of an individual's tour in a unit. A Designation may be removed for cause but would not expire due to any T&R or NAMP-based loss of proficiency. See paragraph 2.7.5.a (1) and (2) below, for situations that may result in a loss of Designation.

2.7.3. Maintenance Level Designations. The following are examples of Designations:

- a. Collateral Duty Inspector
- b. Quality Assurance Representative
- c. Collateral Duty/Quality Assurance Representative
- d. Safe for Flight

2.7.4. Attaining Designations. Once the certification process is complete, the Maintenance Officer or Commanding Officer may grant the Designation.

2.7.5. Loss of Designation:

- a. Loss of Designation For Cause:

(1) Cause: Billet or Work Center Transfer. Designations may be suspended if an individual possessing a Designation (CDI), moves to a billet or work center where those skills are either not applicable or are not authorized due to a conflict of interest in accordance with NAMP or Marine Corps policy.

(2) Cause: Command Discretion. Individuals do not normally lose (have revoked) an earned Designation, however, Maintenance Officers and Commanding Officers may remove for cause, any Designation at their discretion. Individuals who lose a Designation may no longer act in that capacity until reinstated.

- b. Revocation or Suspension. Designations may be revoked or suspended in accordance with NAMP policies.

(1) Revocation. A revocation is the complete removal of a Designation from an individual.

(2) Suspension. A suspension is the removal, for a specified period of time, of a Designation from an individual.

c. Regaining Designation:

(1) Regain Designation After Revocation/Suspension. Individuals who lose a Designation may be allowed to regain the Designation through remedial training or some other appropriate manner. Current granting authority shall assign OJT, NAMP and/or additional tasks required to reinstate the designation. The individual shall not perform the duties for which the individual was designated until the designation has been reinstated. This will occur on a case-by-case basis as the Maintenance Officer or Commanding Officer deems appropriate.

(2) Regaining Designation Upon Return to a Work Center. Individuals who lose a Designation due to an absence from the work center shall regain their Designation(s) based upon the amount of time spent out of the work center (see Table 2-03) and in accordance with the community T&R. These re-designation criteria shall be observed and signed-off in accordance with the T&R Task or syllabus guidance.

Table 2-03.--Designation Re-demonstrate Requirement Due to Absence From Work Center

IN/OUT Maintenance Department	Re-Demonstrate Designation R-Coded Tasks Required*
IN	≥270 Days
OUT	≥90 Days
≥ - Greater than or equal to symbol * Re-Demonstration intervals may vary with certain NAMP programs/syllabi. The AMTRP, where it is more restrictive than the NAMP, shall be adhered to. If the AMTRP does not address a specific program, the NAMP guidelines apply.	

2.7.6. Changes of Command, Deployments, Transfers, Transitions, and Conversions. Since community syllabi have been standardized, and CG TECOM-approved certification processes used to grant T&R Designations, individuals shall not be required to re-demonstrate T&R Tasks or undergo the re-certification process prior to performing those same designation duties while: under a new command, in a deployed environment, when transferred to a detachment, or in the case of transfer to a like Type/Model/Series (T/M/S) unit. However, Transitions or Conversions to a new T/M/S aircraft may require additional training. The guidance provided below is meant to assist in standardizing the method by which Designations are handled in aircraft Maintenance Department.

a. Change of Commanding Officer. All Designations honored under a previous Commander shall be honored by the new Commanding Officer unless cause for revocation or suspension exists. Commanders shall provide documentation to carry-over Qualifications and Designations to satisfy NAMP documentation requirements.

b. Deployments with Other Units or Detachments. All Designations honored under a previous command shall be honored by Detachment/Deployment

Commanding Officers unless cause for revocation or suspension exists. Commanders shall provide documentation to update or carry-over Qualifications and Designations to satisfy NAMP documentation requirements.

c. Designations and Transfers to Like-T/M/S Units. For Permanent Change of Station (PCS) or Permanent Change of Assignment (PCA), individuals who were Designated for specific tasks in previous commands (i.e. CDI, CDQAR, QAR, SFF, QASO, etc.) retain certification upon check-in and shall not be required to undergo T&R recertification. Individuals shall undergo training for any local procedural differences, and may, upon successful interview, be re-designated. Individuals must be re-designated prior to performing specific Designation duties.

d. Designations and Transitions/Conversions to New Type/Model Aircraft:

(1) Aircraft Specific Designations. Individuals undergoing transition or conversion to a new Type/Model aircraft (F/A-18 to MV-22, CH-46E to CH-53E, etc.) shall complete the transition/conversion certification process for the specific Designation. Designations that are aircraft-specific shall not be applied to Designations under a new Type/Model aircraft unless specifically authorized by the community T&R.

(2) Non-Aircraft-Specific Designations. Designations that are not aircraft-specific may be applied to Designations under the new Type/Model aircraft.

e. Designations and Conversions to New Series Aircraft:

(1) Aircraft-Specific Designations. Individuals undergoing transition to a new series aircraft (AH-1W to AH-1Z, UH-1N to UH-1Y, etc.) shall complete the series conversion syllabus for the specific Designation.

(2) Non-Aircraft-Specific Designations. Designations that are not aircraft-specific may be applied to Designations under the new Series aircraft.

## 2.8. SUPPORT EQUIPMENT (SE) LICENSING:

2.8.1. SE Licenses. Possession of critical SE licenses may be required for individuals to perform their jobs effectively and efficiently. Specific SE licenses may also be required prior to attaining SSSP, SSP, Maintenance Leadership Qualifications and/or Designations, or other specific QDs in particular Maintenance divisions.

2.8.2. SE License Data. An example of a community's top Support Equipment Licenses, that are tracked and reportable in regards to unit readiness, is depicted in the table below.

Table 2-04.--[T/M/S] Community SE Licensing Unit CMMR (Example)

Support Equipment	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6212		6252		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						
TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER												
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								
AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		

Support Equipment	SQUADRON (-)											
	PL		AF				AVI				ORD	
	6212		6252		6282		6212		6252		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						
TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER												
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								

AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		
SQUADRON (DET)												
Support Equipment	PL		AF				AVI				ORD	
	6212		6252		6282		6212		6252		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						
TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER												
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								
AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		

V=Combat Deployable Sqdn      T=Trainer Sqdn

## 2.9. PROGRAMS OF INSTRUCTION:

2.9.1. Program of Instruction (POI). A POI is a subset of Tasks extracted from the overall MOS T&R and is a logical grouping of MOS-specific aircraft maintenance T&R Tasks that, when coupled with instruction by mentors, will produce highly skilled and dependable Marine aircraft maintainers. These maintenance T&R Tasks span multiple AMTRP performance levels and is the recipe for SSP/SSSP advancement and QD attainment. There are multiple POIs available to handle various training considerations as described below.

2.9.2. Basic/Transition/Series Conversion/Locality POI Assignment:

a. Basic (B) POI. The Basic POI is designed as the initial POI used primarily for Initial Accession Personnel (First Term personnel) and Model Conversion Personnel and is annotated as a "B" on the header line of each T&R Task. For an example of the T&R Task Structure, see Figures 5-05 and 5-06 in Chapter 5 of this manual.

(1) Initial Accession Personnel (First Term). The Basic POI includes all OJT and NAMP T&R Tasks associated with a specific aircraft MOS. Marines on their first enlistment shall be assigned to the Basic POI of the applicable T&R syllabus.

(2) Model Conversion Personnel. Individuals who have moved from one model aircraft to another, within the specific aircraft type (CH-46 to CH-53 or EA-6 to F/A-18, etc.), shall be assigned to the Basic POI of the new model T&R syllabus.

b. Transition (T) POI. The Transition POI is designed to provide individuals who are transitioning from one aircraft type (Rotary to Fixed Wing, Fixed Wing to Tiltrotor, etc.) to another. Personnel selected for Transition to another Type shall be assigned to either the Basic or Transition POI (see paragraph 2.9.2. above for Basic POI). The Transition POI is annotated as a "T" on the header line of each T&R Task. For an example of the T&R Task Structure, see Figures 5-05 and 5-06 in Chapter 5 of this manual.

c. Series Conversion (C) POI. This POI is designed for personnel converting from a particular series of aircraft to a new series that has different aircraft maintenance training requirements in one or more MOSs. Individuals may be assigned to either the Basic or Series Conversion POI at the discretion of the SMEs in the specific T&R (see paragraph 2.9.2. above for Basic POI). The Series Conversion POI is annotated as a "C" on the header line of each T&R Task. For an example of the T&R Task Structure, see Figures 5-05 and 5-06 in Chapter 5 of this manual.

d. Refresher (R) POI. The Refresher POI is annotated as an "R" on the header line of each T&R Task. The refresher POI is designed at the Subsystem level and applies to two types of individuals:

(1) Individuals that have progressed through the B, T, or C POIs to attain SSSP in a given (or multiple) Subsystem(s) by completing all required Subsystem Skill Tasks (2000-4000 level only) and NAMP Tasks (appropriate to billet).

(2) Individuals who attained SSSP in a given Subsystem and execute orders to a non-MOS billet of the unit, and then return to the work center to work in the same MOS.

(3) Assignment to the Refresher POI:

(a) Upon attainment of SSSP in a given Subsystem the individual is assigned to the Refresher POI in that Subsystem. While assigned to the Refresher POI, individuals maintain SSSP by remaining proficient in the R-coded Task(s) in the 4000 level. If there are no Tasks requiring proficiency in a given Subsystem, the individual maintains SSSP for the duration of their tour.

(b) Individuals who attained SSSP and subsequently leaves the work center shall be assigned to the Refresher POI for the Subsystem(s) in which the individual was previously SSSP.

e. Locality (L) POI. The "L" POI encompasses those items specific to units and locations, not covered by the four previously mentioned POIs. Individuals arriving to a new station must receive station-specific instructions and/or training (i.e. HAZMAT handling procedures).

f. Individuals who did not achieve SSSP in any Subsystems prior to being reassigned outside of their MOS, shall remain in the same POI (B, T, C) upon returning to their work center, until achieving SSSP. Upon achieving SSSP in any given Subsystem Skill, the individual shall be assigned to the Refresher POI for the Subsystem(s) in which the individual achieved SSSP, as depicted in Table 2-01.

## 2.10. TYPE, MODEL, AND SERIES DEFINITIONS:

2.10.1. The following definitions should be helpful in determining the appropriate POI for a given individual within an OMA.

a. Type Aircraft (Fixed Wing, Rotary Wing and Tiltrotor). Individuals may be assigned to one Type of aircraft and move to another. For example, an individual originally trained in Rotary Wing maintenance specifics may subsequently be assigned to the Tiltrotor or Fixed Wing community.

b. Model Aircraft (CH, UH, AH, MV, F/A, AV, EA, KC, or HH). Individuals may be assigned from a CH-53 to the CH-46 community or from the AV-8B to the F/A-18 community.

c. Series Aircraft (KC-130FRT to KC130J, CH-53D to CH-53E, UH-1N to UH-1Y, AH-1W to AH-1Z or CH-46 to HH-46D to HH-46E). Individuals may convert from an old series to an updated series, or vice versa.

## 2.11. TASK SEQUENCING:

2.11.1. Maintenance Training Tasks. Aircraft maintenance consists of scheduled and unscheduled maintenance; therefore a sequential completion of the maintenance task(s) is not feasible. As training tasks are accomplished they should be logged in the training management system accordingly. The final Task in each Subsystem shall be the last Task completed in order to attain Subsystem Skill Proficiency and shall be R-Coded.

2.11.2. NAMP Training Tasks. NAMP instruction may be accomplished in an orderly or sequential manner. NAMP Performance Levels shall be fully completed prior to progressing to higher levels.

2.12. PREREQUISITES. A prerequisite is a requirement that must be successfully completed prior to beginning another maintenance training Task.

## 2.13. PROFICIENCY:

2.13.1. Task Proficiency. Individuals must demonstrate proficiency in selected maintenance Tasks during regular time intervals. The T&R term 'Task Proficiency' refers to how recently an individual has demonstrated/re-demonstrated competency in a maintenance Task in relation to the Task's proficiency date and/or re-demonstrate factor. Each individual shall have proficiency dates attached to each T&R code. Task proficiency shall be logged and tracked using the automated training management system.

2.13.2. Re-demonstrate Factor. Re-demonstrate factor establishes the maximum time between maintenance tasks (OJT or NAMP) wherein the unit can expect the average maintainer in that MOS to maintain an acceptable level of proficiency for that maintenance Task. The re-demonstrate interval is measured in number of days and indicates the period within which the Task must be re-performed or updated. Tasks that have no re-demonstrate interval have a one time training requirement and are noted by an "N/A" in the re-demonstrate column of the Task description. Specific re-demonstrate intervals can be found in Table 2-01.

2.13.3. Task Proficiency Status Types. Proficiency is a term used to describe the demonstrated ability to complete a particular Task within a stated performance standard. The re-demonstrate interval establishes the maximum time between demonstrations of those particular Tasks to remain proficient. The proficiency status for a given Task is either 'Proficient,' 'Delinquent,' 'Never Been Attempted (NBA),' 'Incomplete,' or 'In Work'.

a. Proficient. Refers to an individual who has successfully completed/updated and logged a Task within the re-demonstrate interval. For example, the re-demonstrate interval for Task FLTC-3031 is 365 days and an individual successfully performed the FLTC-3031 60 days prior. The individual has a 'proficient' status for FLTC-3031 and the individual's proficiency status for that Task will remain 'proficient' for the next 305 days. Tasks completed that have an "N/A" for a re-demonstrate interval, do not expire and thus are provided a "proficient" status. The individual would maintain "proficient" status for the duration of his tour.

b. Delinquent. Describes an individual who has previously completed the Task, but has exceeded the re-demonstrate interval for that Task. If an individual exceeds the re-demonstrate interval for a particular Task, the individual loses his proficient status for that Task. To continue with the example above, if the individual does not perform FLTC-3031 (or the Task is not updated in the training management system) in the next 305 days, the individual's proficiency status for FLTC-3031 will be "delinquent."

c. Never Been Attempted (NBA). The individual has never attempted to complete the Task.

d. Incomplete. The individual began the Task but did not complete it in accordance with the performance standards. If the Task requires several iterations (i.e. 5 tire changes) then the proficiency status would indicate the following sequence for that Task:

- (1) NBA - Prior to first tire change attempt
- (2) In Work - After first thru fourth successful tire changes
- (3) Proficient - After fifth successful tire change

(4) Incomplete - Task has been attempted but not successfully completed

2.13.4. Task Proficiency Date. An individual's proficiency date for a T&R Task is the most recent date that event was logged. Proficiency dates apply to each maintainer and each T&R Task.

2.13.5. Proficiency Dates and Readiness Reporting. Proficiency status may change from day-to-day depending on the re-demonstrate interval. Therefore, when preparing Maintenance Core Competency Reports, measurement of proficiency status must be accomplished for a specific date, or "reference date" (usually "today").

2.13.6. Task Proficiency Updating. Task proficiency dates shall be updated when a Task is completed, for POI updating, or to log waived Tasks. Task proficiency updating applies to all 2000-4000 level tasks.

a. Task Completion. When an individual successfully accomplishes the requirements of a maintenance OJT or NAMP Task per the performance standard, the individual shall log completion of the Task (enter the appropriate T&R Task code) directly into the TMS or via NALCOMIS (once auto-transfer is available; applies to OJT Tasks only). When the Task is entered into the TMS and signed-off by an individual with T&R Task sign-off authority, the individual's proficiency date for that Task is automatically updated to reflect the date the Task was completed.

b. POI Updating. Tasks may be completed via POI updating which is a tool applicable only to individuals assigned to T, C, or R POIs. The rules associated with POI updating are as follows:

(1) Transition/Series Conversion POI Updating. Task updating occurs by Subsystem. When all T or C tasks in a Subsystem performance level are successfully completed (through 4000 level), all remaining Tasks in that Subsystem are updated regardless of their proficiency status (Proficient, NBA, Incomplete, and Delinquent events are all updated).

(2) Refresher POI Updating. Task updating occurs by Subsystem. SSSP individuals can be updated by accomplishing the R-coded Tasks through the 4000 performance level for the given Subsystem(s). This also applies to "returning" individuals who were SSSP prior to leaving the work center.

c. Waived Tasks. In general, maintenance Tasks and NAMP Tasks leading to Subsystem or System Skill Proficiency should not be waived. However, in the event that circumstances warrant such a waiver, then single or multiple Tasks may be waived by either the Maintenance Officer or Commanding Officer (Detachments, OICs apply). See section 2.15 for more on Waivers.

2.13.7. Regaining Task Proficiency. If an individual has previously completed a Task, but has a "delinquent" proficiency status for that Task, the individual is required to complete the Task with an individual who possesses sign-off authority for the T&R Task.

2.14. MAINTENANCE T&R TASK SIGN-OFF AUTHORITY:

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2.14.1. Authorization and Standard. Each T&R Task dictates the Proficiency, Qualification, or Designation level that is authorized to sign-off the training. Generally, the individual authorized to sign-off on the T&R training Task will be a CDI or higher for Maintenance Tasks and an individual who has completed the next higher performance level for NAMP Tasks. When supervising individual maintenance Tasks or NAMP Tasks, regardless of the Task level (2000-4000), individuals who will sign-off the T&R Task shall ensure that trainees demonstrate the Task to the performance standards prior to "signing-off" and logging the successful completion of the Task. Evaluating individual proficiency in a Task normally requires both objective and subjective assessment. If an individual fails to accomplish the Task requirement to the performance standard, the sign-off authority should log that Task as "incomplete", since the Task was attempted but not completed.

a. A System Skill Proficient individual may be authorized to Sign-off maintenance T&R OJT Tasks for all OJT Tasks within the given System (2000-3000). A non-CDI SSP individual shall not be authorized to sign-off T&R OJT Tasks at the 4000 Performance Level.

b. A Subsystem Skill Proficient individual may be authorized to Sign-off maintenance T&R OJT Tasks for all OJT Tasks within the given Subsystem (2000-3000). A non-CDI SSSP individual shall not be authorized to sign-off T&R OJT Tasks at the 4000 Performance Level.

c. NAMP Task sign-off authority shall be an individual who is next level higher complete, unless otherwise prescribed within the task. For Example: a 2000 level NAMP task sign-off authority shall be 3000 level complete or higher, however, all NAMP indoctrination tasks (1000 level) shall be signed-off a program expert, normally the program manager/monitor only.

2.14.2. Multiple Task Logging. There may be opportunities for maintainers to accomplish the requirements of more than one Task during scheduled or unscheduled maintenance or during NAMP Task training. Multiple T&R Tasks may be signed-off only if all performance standards for each Task are accomplished.

2.15. WAIVERS AND DEFERRALS. Within the unit, waiving or deferring syllabus tasks or prerequisites shall only be accomplished by the Maintenance Officer or Commanding Officer by submitting a "Policy Deviation Request", via naval message, to CG TECOM (ATB), unless otherwise noted herein. All waived or deferred T&R Tasks shall be annotated in the training management system. (See Figure 2-01, for a sample Policy Deviation Request)

2.15.1. Waivers for Maintenance OJT Tasks. The Tasks required to attain System Skill Proficiency and Maintenance Leadership Qualifications and Designations have been selected by SMEs and validated by the Chain of Command. Rules of waiver are as follows:

a. Basic (B) POI Task Waivers. Tasks shall not be waived for individuals while in the Basic POI.

b. Transition (T)/Series Conversion (C) POI Task Waivers. Tasks shall not be waived for individuals assigned to these POIs unless, at the discretion of the Maintenance Officer, the individual possesses the requisite knowledge, skills, and experience to render a specific Task(s) as "not

required". In this case, the command shall annotate the waiver for the Task in the training management system.

c. Refresher POI Task Waivers:

(1) OJT R-Coded Task Waivers. OJT R-Coded Tasks may be waived. However, individuals shall, at a minimum, perform the final R-Coded Task in each applicable Subsystem.

(2) NAMP R-Coded Task Waivers. NAMP R-Coded Tasks may not be waived. Individuals shall perform all NAMP R-Coded Tasks, as appropriate to applicable NAMP Program Task(s).

d. Multiple Subsystem Task Waivers. Units shall not waive multiple Tasks within a single performance level in any Subsystem without CG TECOM (ATB) approval. For multiple Subsystem Task waivers, command shall submit a "Policy Deviation Request" for approval, via naval message, to CG TECOM (ATB). (See Figure 2-01, for a sample Policy Deviation Request)

e. Qualification Syllabus Waivers. Units may, at the discretion of the Maintenance Officer, waive individual qualification Tasks, however waivers of multiple qualification Tasks require a "Policy Deviation Request" approval, via naval message, from CG TECOM (ATB). (See Figure 2-01, for a sample Policy Deviation Request.

```
FM HMH 462
TO CG TECOM QUANTICO VA ATB
INFO CG 2ND MAW G3
CG 3RD MAW G3
MAG 16
MAG 26
UNCLAS
MSGID/GENADMIN/HMH 462//
SUBJ/AIRCRAFT MAINTENANCE T&R PROGRAM DEVIATION REQUEST//
REF/A/MSG/MAG-16/101529Z AUG07//
REF/B/MSG/CG 3D MAW G3/140324Z AUG 07//
REF/C/DOC/NAVMC 4790.XX//
NARR/REF A IS REQ FOR WAIVER OF MAINTENANCE TASKS ENGC 123 AND ENGC 456 AT
HMH 462 ICO SGT I. M. MARINE. REF B IS FAVORABLE ENDORSEMENT. REF C IS AIRCRAFT
MAINTENANCE T&R PROGRAM MANUAL.//
POC/MARINE, I. M./MGYSGT/IM.MARINE@USMC.MIL /DSN 278-XXXX//
RMKS/1. WAIVER OF TASKS PER THE REFS//
BT
```

Figure 2-01.--Policy Deviation Request Message (Sample)

f. Designation Syllabus Waivers. Units shall not waive entire designation syllabuses. Units may, at the discretion of the Maintenance Officer, waive individual designation Tasks. Waivers of multiple designation Tasks require a "Policy Deviation Request" approval, via naval message, from CG TECOM (ATB). (See Figure 2-01, for a sample Policy Deviation Request)

g. Prerequisite Waivers. Maintenance Officers, via CG TECOM (ATB), may waive prerequisites when the prerequisite waiver does not pose an unacceptable safety risk. Waivers of prerequisites require a "Policy Deviation Request" approval, via naval message, from CG TECOM (ATB). (See Figure 2-01, for a sample Policy Deviation Request)

2.15.2. Waivers for NAMP Tasks. NAMP Tasks shall not be waived.

2.15.3. Recording Waivers in the TMS. Waived Tasks shall be annotated as "Waived," along with the date applicable, in the training management system. When a Task is waived, the individual's proficiency date for that Task shall be manually updated in the TMS and the individual remains proficient through the respective Task re-demonstrate interval. Waiver in the TMS must reference Naval Message approval response with date-time-group from CG TECOM (ATB).

2.15.4. Waiver Requests:

a. The table below summarizes the waivers that are allowed and when a Policy Deviation Request message is required.

Table 2-05.--List of Authorized POI Waivers

TASK TYPE	WAIVER TYPE	WAIVERS ALLOWED	REQUIRES POLICY DEVIATION REQUEST
Individual	"B" POI	No	---
Individual	"T", "C", or "R" (OJT Tasks)	Yes	No
Individual	All NAMP Tasks	No	---
Multiple	OJT Tasks within a single Performance Level of any Subsystem	Yes	Yes
Individual	Qualification OJT Tasks	Yes	No
Multiple	Qualification OJT Tasks	Yes	Yes
Individual	Designation OJT Tasks	Yes	No
Multiple	Designation OJT Tasks	Yes	Yes
-----	Prerequisites to OJT Tasks	Yes*	Yes

\* Waivers for Prerequisites are allowed only if removal of the waiver does not pose an unacceptable safety risk.

2.15.5. Deferrals and Maintenance OJT Tasks. Tasks may be deferred when the lack of logistical support, training assets, or maintenance opportunities do not allow Task completion in a timely manner. OJT Task deferrals require a "Policy Deviation Request" approval, via naval message, from TECOM/ATB (see Figure 2-01, for a sample Policy Deviation Request). Deferred Tasks are temporary training exceptions and shall be completed when opportunity and/or support become available.

2.15.6. Deferrals and NAMP Tasks. NAMP Tasks may not be deferred.

2.15.7. Recording Deferrals in the TMS. Deferred Tasks shall be annotated as "Deferred," along with the date effective, in the training management system. When a Task is deferred, the individual's proficiency date for that Task shall not be updated in the TMS. Quality Assurance Officers shall annotate deferred Tasks in the individual's TMS account until the Task is successfully completed. Deferrals must reference the CG TECOM (ATB) Naval Message approval date and time group.

CHAPTER 3  
AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM  
MAINTENANCE DEPARTMENT CURRENT READINESS REPORTING

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**CHAPTER 3**  
**AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM**  
**CURRENT READINESS REPORTING**

3.1. PURPOSE. To communicate the methodology for mapping AMTRP maintenance training tasks and Core Model Minimum Requirements Tables to the Naval Aviation Enterprise Current Readiness Reporting requirement.

3.2. SCOPE. The AMTRP provides the tasks, structure, and standardization policies for building Core Competent Maintenance Departments. The HQMC current readiness reporting initiative requires units to report Maintenance Department training readiness based upon the meeting of System Skill Proficiency, Maintenance Leadership, and SE Licensing standards. This chapter delineates the method by which compiled maintenance training data is measured against objective standards to provide the Maintenance Core Competency (MCC) Report.

3.3. OVERVIEW. A Core Competent Maintenance Department maintains at a minimum, the CMMR-defined number of individuals who have attained and maintained System Skill Proficiency, who have been granted specific Maintenance Leadership Qualifications and Designations, and who possess department-critical SE licenses. Sections 3.4 thru 3.8 provide information on the attainment of each of these pillars of Maintenance Training Readiness, which are depicted in Figure 3-01:

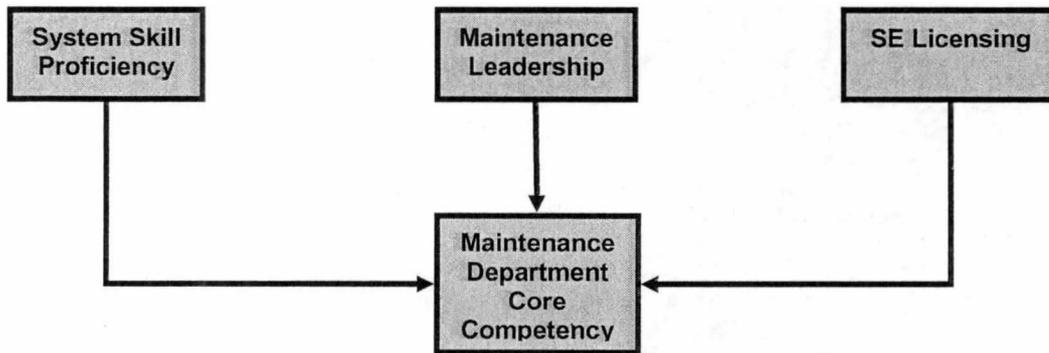


Figure 3-01.--Maintenance Training Inputs to Maintenance Training Readiness

3.4. TASK PROFICIENCY AND READINESS. A Task is defined as a specific OJT or NAMP T&R requirement. An individual is considered proficient in a given Task if the individual has successfully executed the Task in accordance with the T&R Task Performance Standard(s) and re-demonstration interval. See Chapter 1 for an overview.

3.5. SUBSYSTEM SKILL COMPOSITION AND PROFICIENCY:

3.5.1. Composition. Each Subsystem is composed of OJT and/or NAMP Tasks. The number of Tasks is dependent upon the complexity of the Subsystem and the training requirement. OJT Tasks within the 2000-4000 Performance Levels

include a mandatory proficiency requirement. Subsystem Tasks at the 7000 Performance Level are not required to be performed however, accomplishment shall be documented in the training management system upon completion, and credit granted to the individual. See Figure 3-02.

3.5.2. Proficiency. Subsystem Skill Proficiency refers to the successful completion of all OJT and/or NAMP Tasks within a single Subsystem. Additionally, one or more specifically indicated SE licenses or Qualification/Designation may be required for Proficiency in certain Subsystems. See Chapter 1 for more information.

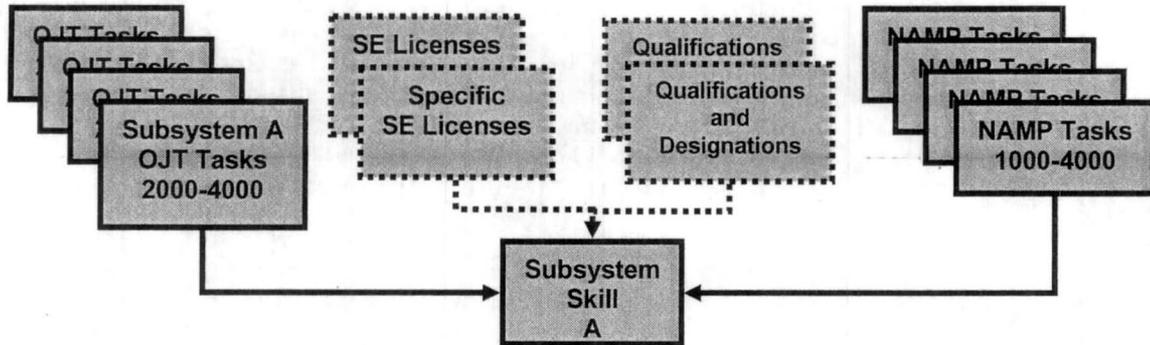


Figure 3-02.--Subsystem Skill Proficiency Composition

3.6. SYSTEM SKILL COMPOSITION AND PROFICIENCY:

3.6.1. Composition. Each aircraft System is comprised of one or more Subsystems. As subsystem OJT and NAMP Tasks are completed and logged, and required SE licenses or Qualifications/Designations are acquired, individuals progress toward System Skill expertise. Of note, there are a large number of SE licensure opportunities that may not be required for SSP but do enhance the ability of individuals to accomplish their jobs more efficiently. These SE licenses may be found in the 6000 Performance Level (Qualifications, Designations and Licenses).

3.6.2. Proficiency. System Skill Proficiency refers to the successful completion of all Subsystem Skill OJT and/or NAMP Tasks required within a given System. As individuals master the Subsystems that comprise an aircraft System, they increase their contribution to the overall maintenance effort and to the combat capability of the Unit. See Figure 3-03.

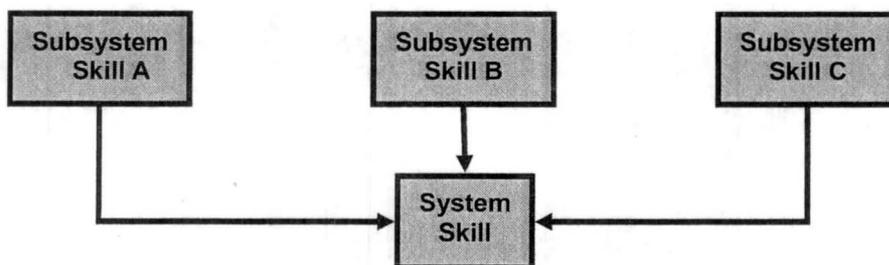


Figure 3-03.--System Skill Proficiency Composition

3.7. MAINTENANCE LEADERSHIP COMPOSITION AND READINESS:

3.7.1. The Maintenance Leadership requirement of Maintenance Core Competency is comprised of specific Qualifications and Designations deemed critical to the efficient and effective functioning of an Organizational Maintenance Activity (OMA) Maintenance Department. HQMC(ASL), in concert with Operating Forces has determined the following Qualifications and Designations as critical to a Maintenance Department's ability to produce RBA/RFT aircraft. See Table 3-01.

Table 3-01.--Maintenance Leadership Readiness Reporting

Maintenance Department Leadership Readiness Reporting Qualifications and Designations
SAFE FOR FLIGHT
QAR
CDQAR
QA/SO
CDI
PLANE CAPTAIN
HIGH POWER
LOW POWER

3.7.2. Each MOS Qualification and Designation has an associated certification process, including a specific syllabus, required to attain each specific Qualification or Designation (QD). Each QD syllabus is comprised of MOS-specific OJT and/or NAMP Tasks. These QD syllabi may require the attainment of one or more specific SE licenses or other certification events, such as tests or boards, prior to granting. See Figure 3-04.

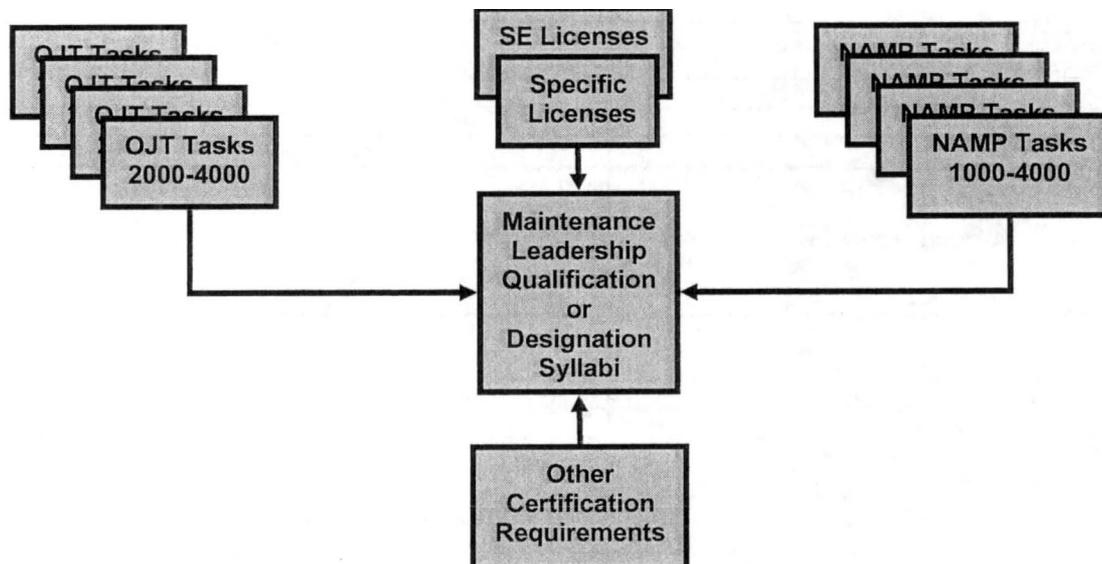


Figure 3-04.--Maintenance Leadership Syllabi Composition

3.8. SUPPORT EQUIPMENT (SE) LICENSING. Each aircraft community has specific SE licenses that are considered critical to the smooth and efficient operation of the department. The department tracks each of these licenses and compares the number of licensed personnel with the Unit's CMMR as established in Chapter one of the community T&R. Table 3-02 provides an example of squadron/squadron(-)/detachment SE licensing requirements as provided below in the CMMR Table for a notional community.

Table 3-02.--Support Equipment Licensing and Readiness Reporting (Example)

SUPPORT EQUIPMENT	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						
TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER												
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								
AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		

SUPPORT EQUIPMENT	SQUADRON (-)											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						

TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER												
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								
AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		
<b>SQUADRON (DET)</b>												
<b>SUPPORT EQUIPMENT</b>	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	6	8	30	45								
DEMINERALIZATION CART	26	38										
COBRA CRANE (4-TON)	4	6	4	6								
OXY SERVICING CART					7	8						
NITRO SERVICING CART	26	38	30	45	5	6						
HYD POWER SUPPLY			30	45								
HYD SERVICING UNIT			30	45								
AIR CONDITIONER												
LIGHT CART	10	12	30	45	7	8	8	16	8	16		
AIRCRAFT START UNIT	10	22			4	5						
TOW TRACTOR	26	38	30	45	7	8	8	16	8	16		
AIRCRAFT UTILITY CRANE (SEAT)			4	6	10	12						
WEAPONS LOADER												
PETTIBONE/HANGAR DECK CRANE /ENTWHISTLE	4	6	1	1	10	12						
ACOUSTICAL AIRCRAFT ENCLOSURE			1	1								
AIR COMPRESSOR UNIT			30	45	7	8	8	16	8	16		
PRE-HEATER												
CC CART	10	12										
EZGO/MITZ/FLIGHT LINE VEHICLE	26	38	30	45	4	6						
TURBINE	10	12										
HI PRESSURE PORTABLE NITRO CYL	6	8										
HYDROBLASTER												
LIQUID COOLED FILTRATION UNIT					7	8						
MEPP	26	38	30	45	7	8	8	16	8	16		

V=Combat Deployable Sqdn      T=Trainer Sqdn

### 3.9. MAINTENANCE DEPARTMENT CORE COMPETENCY (MCC) REPORT:

3.9.1. General. As individuals log T&R maintenance training tasks in NALCOMIS (OJT) or manually into the TMS (OJT and NAMP), the information is compiled, translated into proficiency data, and is used to create readiness reports at the work center, division, department, unit, and Marine Air Group levels. Figure 3-05 provides the flow of the T&R training task data as it is compiled to produce System/Subsystem Skill Proficiency, SE Licensing, and Qualifications/Designations for the Maintenance MCC Report.

3.9.2. MOS and Work Center Level:

a. System/Subsystem Skill Proficiency. Each individual's proficiency data is compared to MOS-community System/Subsystem T&R Task Tables to determine System/Subsystem Proficiency status. Once compiled, the number of individuals who meet System/Subsystem Proficiency standards are tabulated and are displayed in a readiness report for use at the work center level.

b. Qualifications and Designations. Each individual's Qualifications and Designations shall be included in the report. The Work Center level Qualifications and Designations are not limited to the department-critical items found in Table 3-01 but shall include all MOS-related Qualifications and Designations as desired by the community and required by the Work Center Supervisor.

c. SE Licensing. Each individual that possesses one or more licenses will have those recorded in the Work Center level readiness report. The SE portion of the readiness report will vary by community and Work Center since each community's SE requirements are different.

3.9.3. Maintenance Division Level. At the Division Level, the MOS/Work Center proficiency data is compiled and the numbers of individuals who meet System/Subsystem Proficiency standards are tabulated into a Division Level readiness report. The Division Level report shall display the number of System/Subsystem Skill Proficient individuals as compared to the System/Subsystem CMMR Tables in the MOS-community T&R. The method used to determine levels of readiness at the division level can be found throughout the remainder of this chapter. Details can be found in Appendix D.

a. System/Subsystem Skill Proficiency. Work Center proficiency data is compared to MOS-community System/Subsystem requirements. Once compiled, the numbers of individuals who meet System/Subsystem Proficiency standards are tabulated and shall be displayed in a readiness report for use at the Division Level.

b. Qualifications and Designations. Each Work Center's Qualifications and Designations shall be included in the report. The Division level Qualifications and Designations are not limited to the department-critical items found in Table 3-01 but shall include all MOS-related Qualifications and Designations as desired by the community and required by the Division Chief.

c. SE Licensing. All unit personnel and their respective license status will be displayed via the readiness report. The SE portion of the readiness report will vary by community and Division since each community's SE requirements are different.

3.9.4. Department Level. At the Maintenance Department level, all Work Center and Division level proficiency, Qualification/Designation, and Licensing readiness data is rolled up into a single Maintenance Department report in accordance with this chapter and Appendix D.

a. System/Subsystem Skill Proficiency. The number of individuals who meet System/Subsystem Skill Proficiency standards is tabulated and shall be displayed in a readiness report at the Department level.

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b. Qualifications and Designations. Each individual's Qualifications and Designations shall be included in the report. Department level Qualifications and Designations are limited to the mandatory Qualifications and Designations found in Table 3-01 and any user-selected Qualifications and Designations deemed by appropriate authority as readiness reportable (See Appendix D).

c. SE Licensing. Each individual that possesses one or more SE licenses will have those recorded in the Work Center level readiness report. The SE portion of the Department readiness report shall include Department-mandatory SE requirements and any user-selected SE licenses deemed by appropriate authority as readiness reportable (See Appendix D).

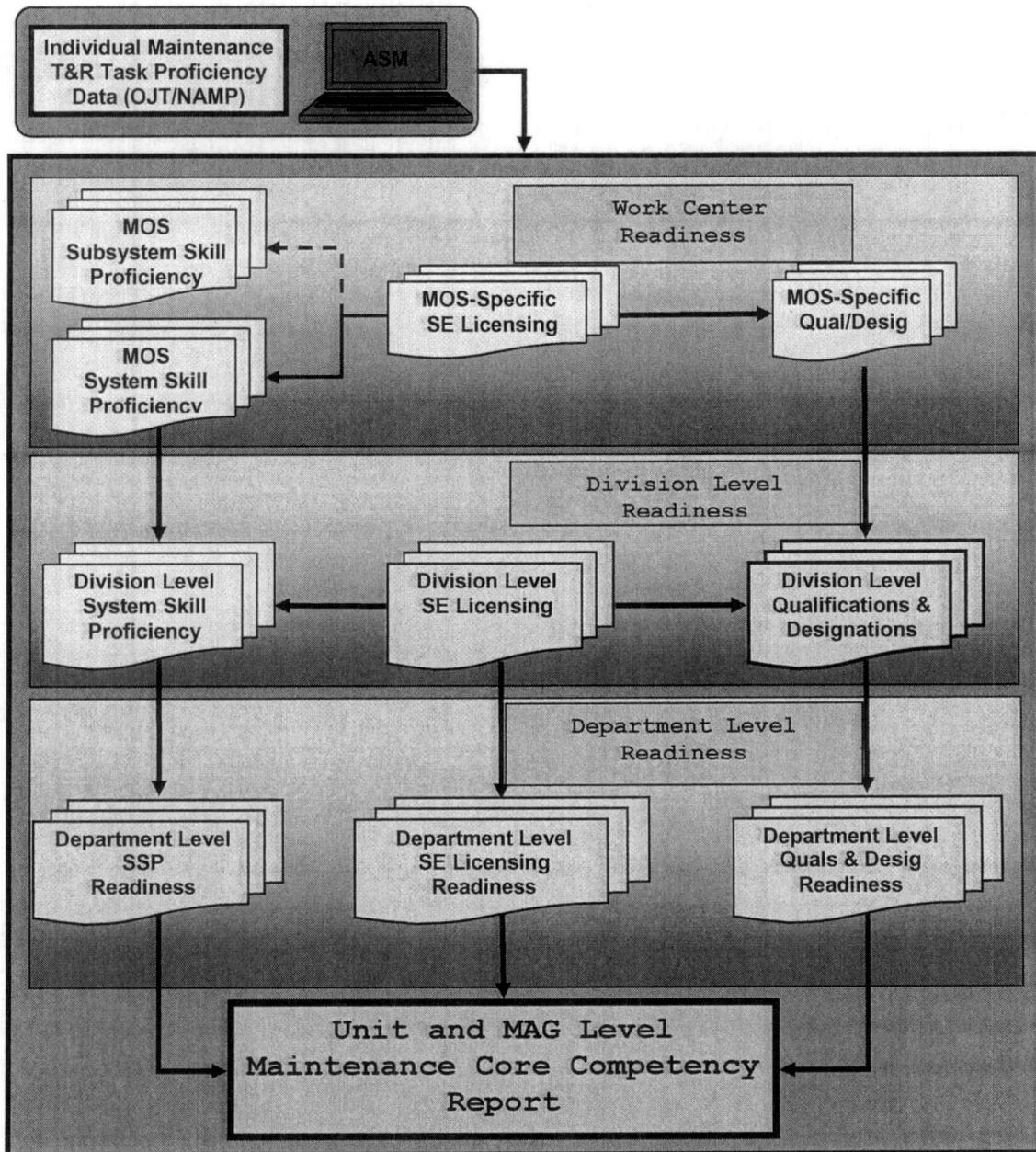


Figure 3-05.--Data Flow for Maintenance Core Competency Report

3.10. MAINTENANCE CORE COMPETENCY EVALUATION. As shown above, the Unit and MAG Core Competency Report shall leverage actual training management data. Once incorporated, the report shall enable a drill down capability at each level from the MAG down to the Work Center. Readiness reporting capability must also satisfy requirements at the Current Readiness T/M/S lead level. The T/M/S lead readiness report requires the ability to query readiness by T/M/S across Marine Aircraft Wings. See Figure 3-06.

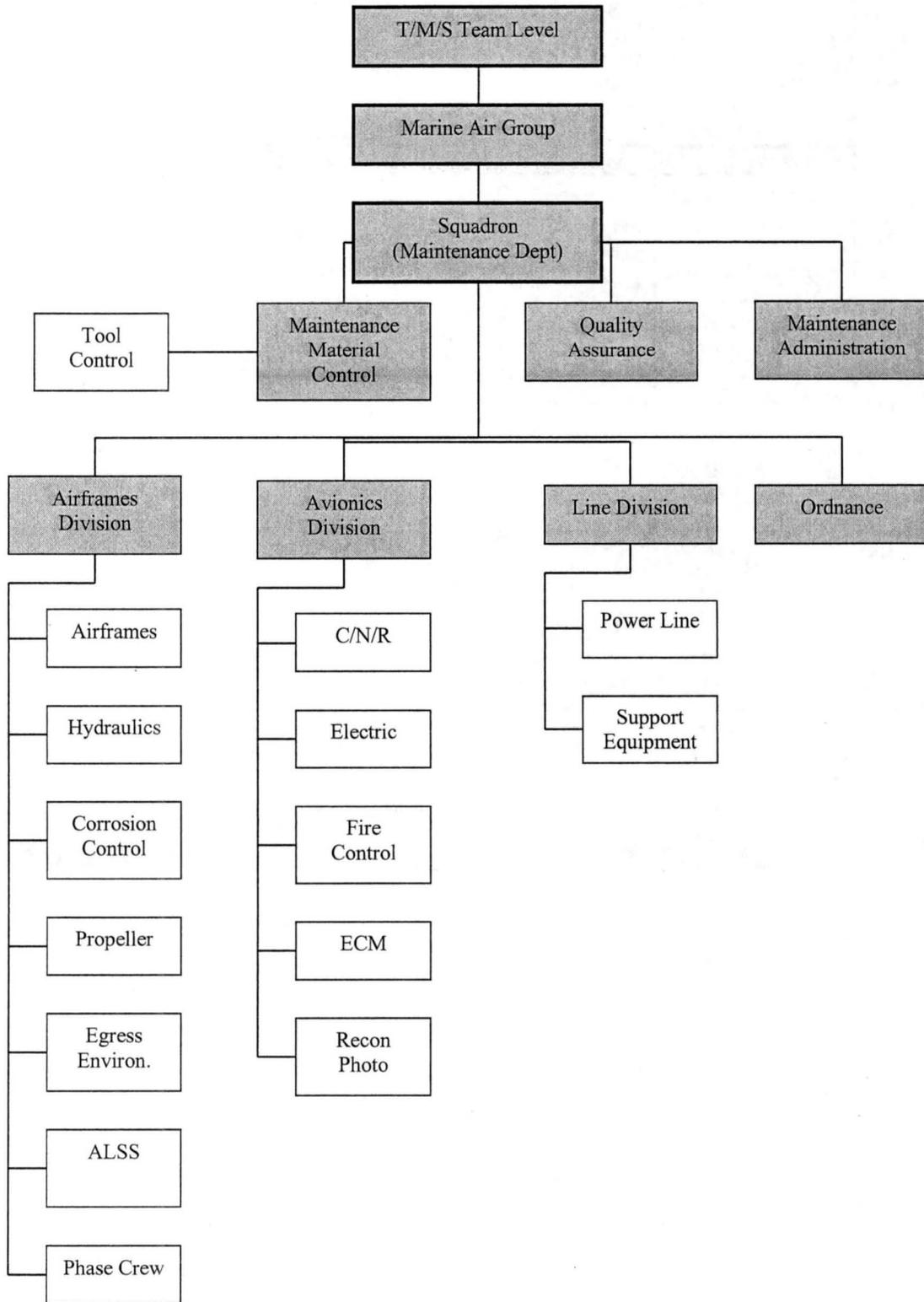


Figure 3-06.--O-Level Division and Work Center Readiness Reporting (Example)

3.11. T/M/S LEADS. The T/M/S Lead is designated by the Marine Aviation Executive Readiness Board (MAERB). Table 3-03 provides a list of the Current Readiness T/M/S Leads. T/M/S Leads are responsible for determining root causes of readiness degraders and providing guidance and direction to eliminate these root causes.

Table 3-03.--Current Readiness T/M/S Leads

Aircraft T/M/S	Lead Marine Aircraft Group	Alternate Lead
HMM	MAG-16	29/26/36/39/49
HMH (D)	MAG-24	
HMH (E)	MAG-29	26/16/49
HMLA	MAG-39	26/29/49
VMM	MAG-26	29
VMA	MAG-13	14
VMAQ	MAG-14	
VMGR	MAG-11	14/36/41/49
VMFA	MAG-31	11/12/41

3.12. CURRENT READINESS EFFORT:

3.12.1. Levels:

a. Marine Air Group (MAG) Level. Since each MAG CO is responsible for the readiness of their MAG, and can best remedy root causes within it, the MAG CO is included in the Current Readiness effort. At the MAG level, the MCC shall simply display the readiness of each squadron from a Maintenance Training perspective although much more information is included in the overall Current Readiness cockpit charts. The display, from the MAG perspective will be similar to Figure 3-07. Deployability is a judgment call that must come from the unit and therefore there is no definitive ruling that forces a Maintenance Department with a Training Readiness Level of T-4 to declare itself non-deployable.

	Squadron 1	Squadron 2	Squadron 3	Squadron 4
MAG Overview	Deployable	Deployable	Deployable	

Figure 3-07.--MAG Overview of Maintenance Core Competency (Example)

b. Maintenance Department Level. At the Department Level, the MCC Report shall allow the user to drill-down to the Division and Work Center Levels. Given the permissions to do so, users will ultimately be able to drill-down to individual training records, Systems, Subsystems, T&R Tasks, Qualification/Designation syllabi, etc. For example, if Squadron 2 is evaluated as "Yellow" as shown, degradation in training or licensing has occurred and may impact the unit's ability to execute two-shift maintenance. The user may select that unit to begin analyzing the reason(s) for that evaluation by Division and Work Center (see Appendix D). Note that it will be readily apparent when Divisions are not meeting the two-shift standard as each Division will possess a Green, Yellow, or Red color code to inform the Division Chief of Division training status.

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3.12.2. Analysis. System Skill Proficiency, Maintenance Leadership, and SE Licensing are analyzed at the individual and Work Center levels. Logged data corresponding to the training accomplished by on-hand personnel is compared to the T&R CMMR for System Skill Proficiency, Qualifications and Designations, and Support Equipment Licensing. Each of these categories is then provided a Work Center Training Level. The actual mathematical formula for calculating the training level for each category can be found in Appendix D. Ultimately, the Department Level training readiness assessment (T-2 through T-4) is established. This assessment will give leadership a sense of the Department's ability to conduct two-shift maintenance. A Maintenance Department Training Readiness Level of T-2 equates to an ability of that unit to conduct two-shift maintenance with no degradation due to training or licensing. Other Maintenance Department Training Readiness Level definitions are in accordance with the graded scale in Table 3-04.

Table 3-04.--Readiness Levels for Maintenance Core Competency Report

Level	Maintenance Department Training Readiness Definitions (See Core Model Training Report-Appendix D)
T-2	Department meets or exceeds two-shift capability across System Skill Proficiency, Maintenance Leadership, and SE Licensing areas. Deployable.
T-3	Department may not meet two-shift maintenance capability in one or more Divisions. May be able to meet/sustain two-shift maintenance through Division asset sharing. Deployable.
T-4	Department does not meet two-shift capability in one or more Divisions. Unable to sustain two-shift maintenance.

CHAPTER 4  
AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM  
ADMINISTRATION

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**CHAPTER 4  
AIRCRAFT MAINTENANCE T&R PROGRAM  
ADMINISTRATION**

4.1. PURPOSE. To provide a process for developing, updating, and staffing T&R manuals.

4.2. MAINTENANCE TRAINING SYLLABUS SPONSOR (MTSS). An MTSS is a unit that coordinates T&R changes on behalf of the applicable community in coordination with CG TECOM (ATB). MTSSs shall maintain close liaison with their respective community counterparts. CG TECOM (ATB) generally assigns T&R sponsorship to a Fleet Readiness Squadron (FRS) or a training unit, but may designate a unit from the Total Force or supporting establishment for certain aircraft/systems/MOSSs.

4.3. T&R MANUAL DIRECTORY:

4.3.1. Aircraft T&R syllabi are organized into a series of manuals produced as Navy Marine Corps (NAVMC) Publications. The following matrix table contains a list of aircraft maintenance T&R MTSSs. For an up-to-date listing of T&R manuals, refer to the CG TECOM (ATB) website at <https://www.intranet.tecom.usmc.mil/sites/atb/default.aspx>; click on Training & Readiness Manuals tab.

Table 4-01.--Aircraft Maintenance T&R Manual MTSSs

CATEGORY	COMMUNITY/DIRECTIVE	MTSS	MOS
Policy	Aircraft T&R Prgm MCO 4790.01	CG TECOM (ATB)	All OMA MOSs
Procedures	AMTRP NAVMC 4790.01	CG TECOM (ATB)	All OMA MOSs
Fixed Wing	AV-8B NAVMC 4790.XX	VMAT 203	6212/ 6252/ 6282/ 6312/ 6332
	EA-6B NAVMC 4790.XX	VMAQ-2	6213/ 6253/ 6283/ 6313/ 6333/ 6386
	FA-18(All) NAVMC 4790.XX	VMFAT-101	6217/ 6257/ 6287/ 6317/ 6337
	KC-130J NAVMC 4790.XX	VMGR-252	6216/ 6256/ 6286/ 6316/ 6336
	F-35B NAVMC 4790.XX	VMFAT-501	6218/ 6258/ 6288/ 6338
Rotary Wing	H-1 (All) NAVMC 4790.XX	HMLAT-303	6114/ 6154/ 6174/ 6324
	CH/HH-46E NAVMC 4790.XX	HMMT-164	6112/ 6152/ 6172/ 6322
	CH-53E/K NAVMC 4790.XX	HMT-302	6113/ 6153/ 6173/ 6323
	CH-53D NAVMC 4790.XX	HMH-463	6113/ 6153/ 6173/ 6323
Tiltrotor	MV-22 NAVMC 4790.XX	VMMT-204	6116/ 6156/ 6176/ 6286/ 6326
Non-Aircraft Specific MOSSs	CG TECOM (ATB). Until Non-Aircraft Specific MOS T&R are established and validated. Then Fleet Sponsorship assignments will be made.		6012/ 6018/ 6042/ 6046/ 6048/ 6049/ 6072/ 6073/ 6531/ 6694
NAMP	CG TECOM (ATB). Until NAMP T&R "Supersets" are established and validated. Then Fleet Sponsorship assignments will be made.		As MOS T&Rs are established, NAMP Tasks shall be incorporated into the Community-MOS T&Rs.

4.4. T&R UPDATE OPTIONS:

4.4.1. T&R Conference Review. A T&R review is a forum to comprehensively create or revise a T&R manual. T&R reviews are normally conducted via conference and produce a new version of the T&R manual (e.g. NAVMC 4790.XX"B"). T&R reviews will normally convene on a triennial schedule. However, T&R reviews may be convened as appropriate or when higher headquarters directs.

4.4.2. T&R Correspondence Changes. A correspondence T&R change is a change to an existing manual between T&R reviews. T&R correspondence changes are conducted via electronic means and produce changes to existing T&R manuals (e.g. NAVMC 4790.XX, "Ch 1") or new versions as in paragraph 4.4.1. above. In some communities, this process may suffice for a complete review in lieu of a conference review.

4.5. T&R CONFERENCE REVIEW PROCEDURES:

4.5.1. Pre-Conference Responsibilities:

a. MTSSs:

(1) Conference Location/Date. Coordinate with CG TECOM (ATB) to determine T&R conference location and dates.

(2) Announcement Message. The MTSS shall coordinate with the respective Marine Aircraft Wing (MAW) and Marine Aircraft Group (MAG) to acquire authorization to hold the conference. This coordination will be used as the authorizing reference. Prepare and submit a draft message to CG TECOM (ATB) for release. The final message will be sent to the appropriate commands with an information copy to CMC (DC AVN). This message announces the purpose of the conference and includes the conference convening location/date, identifies units required to nominate voting members, and requests the submission of agenda items in "Item, Discussion, Recommendation" format. CG TECOM (ATB) will release the announcement message 90 days before the conference date. (See Figure 4-01 for sample message)

(3) Agenda Items. Consolidate agenda items and coordinate with CG TECOM (ATB) to release a conference agenda message to MARFORs as required, DC AVN, and all appropriate commands operating/implementing the applicable syllabus.

b. CG TECOM (ATB):

(1) Release announcement and agenda items messages.

(2) Conference Funding. CG TECOM (ATB) shall provide appropriation data funding to voting representatives per MCO P7100.8. Additional conference representatives are encouraged to attend, but must be unit funded.

c. Commands Providing Conference Representatives:

(1) Nominate representatives to CG TECOM (ATB) via message or e-mail NLT 45 days prior to the conference. Responsible commands nominating representatives are COMMARFORCOM, COMMARFORPAC, COMMARFORRES, MAW Commanding Generals; and applicable schools as non-voting members. Conference representatives shall be experienced in the day-to-day supervision of the applicable aircraft maintenance training program being reviewed.

(2) Submit agenda items to the MTSS in Item, Discussion, Recommendation format via message NLT 45 days prior to the conference.

d. The attendee should be a SME in the MOS(s) being represented. The MTSS shall coordinate with off-station commands to ensure all MOSs are represented.

e. All attendees shall be familiar with agenda items and review the applicable T&R syllabus prior to the conference. Voting members shall staff agenda items and have established command positions prior to attending a conference. As front-end agenda staffing facilitates the T&R update process, MTSSs should not accept additional agenda items during T&R conferences.

4.5.2. Conference Responsibilities:

a. MTSS. Hosting responsibilities are as follows:

(1) Reserve a large conference room and breakout rooms to comfortably hold all attendees. Each room must have tables, chairs, adequate amount of laptop computers, projectors, internet connectivity, and ample power outlets.

(2) Provide access to the Defense Switched Network (DSN) telephone capability as well as access to reproduction facilities.

(3) Provide procedures established for orders to be endorsed/stamped for all TAD attendees.

(4) Coordinate billeting and messing requirements and inform attendees via separate correspondence.

(5) Coordinate with the MALS CO/MO or own CO/MO to open the review conference with remarks to the effect that the attendee's participation is paramount to more effective and efficient training.

(6) Make the determination for conference length, in conjunction with CG TECOM (ATB). Conference length will vary from conference-to-conference but generally should take no longer than five working days.

(7) Host the conference and ensure each attendee has access to a draft version of the T&R at the completion of the conference.

b. CG TECOM (ATB). Provide conference guidance to the MTSS and facilitate T&R review procedures. Ensure individual T&R manuals are developed/updated IAW this manual.

c. Voting Members and Other Attendees:

(1) Any conference attendee may make recommendations, but it is the voting representatives who decide T&R content. Agencies providing voting representatives include: MARFORPAC, MARFORCOM, MARFORRES and all MAW Commanding Generals; in addition CG TECOM (ATB) shall also provide a voting member for T&R manual reviews.

(2) At the conference, voting members and attendees shall provide change recommendations as required. SMEs shall format their respective T&R manual syllabus per Chapter 5 of this manual. At a minimum, members of the conference shall complete the following tasks:

(a) Evaluate the syllabus for effectiveness.

(b) Coordinate syllabus requirements with other aircraft communities as required.

(c) Propose changes to the syllabus in format and structure IAW Chapter 5.

(d) Review/validate/modify the following:

1. Unit Core Competency Information (Mission Statement/Table of Organization Data/CMMR Tables).

2. Syllabus System/Subsystem information.

3. Qualification/Designation syllabi.

4. Syllabus Tasks.

5. Programs of Instruction.

6. Academic and Training Resource Requirements.

7. Required T&R Format.

8. T&R Syllabus Evaluation Forms.

4.5.3. Post Conference Responsibilities:

a. MTSS. Coordinate with CG TECOM (ATB) to prepare a conference report message to the MARFORs within 10 working days of conference completion. CG TECOM (ATB) shall release the conference report message within 10 working days of conference completion. Conference report messages shall delineate significant change recommendations and request MARFORs concurrence with the draft T&R manual.

b. CG TECOM (ATB):

(1) Coordinate with the MTSS to prepare and release, within 10 working days, a conference report message. Ensure electronic versions of draft syllabi are available.

(2) Attach MARFOR comments and forward the draft document to CMC (DC AVN), NLT 60 days after conference completion. Unresolved issues shall be forwarded to CMC (DC AVN) for decision.

(3) Upon MARFOR and DC AVN concurrence, release a message approving the T&R syllabus for interim use. Post the interim approved syllabus to the CG TECOM (ATB) website.

(4) Attach DC AVN and MARFOR comments and forward the document to CG TECOM for signature.

(5) When the NAVMC is signed by CG TECOM, release a message announcing that the NAVMC has been approved (the NAVMC replaces the interim T&R syllabus). Post the NAVMC to the CG TECOM (ATB) website. Coordinate with CMC (ARDE) to coordinate posting to the HQMC website.

c. MARFOR/MAWS:

(1) MARFOR/MAW. Command T&R review voting representatives shall brief their respective commands on post conference results.

(2) MARFOR:

(a) Consolidate comments from subordinate units and concur or non-concur with justification to CG TECOM (ATB) via message within 45 days of the conference completion date.

(b) In the event that the subject matter in the draft T&R manual under review does not apply to a MARFOR, that MARFOR is still required to provide a "concur without comment" message in order to facilitate staffing for CG TECOM signature.

d. CMC (DC AVN). Review the proposed syllabus and concur or non-concur with justification to CG TECOM (ATB) via message NLT 90 days after conference completion.

4.5.4. T&R Conference Review Timeline. Table 4-02 below outlines and summarizes T&R Review Conference milestones and tasks:

Table 4-02.--T&R Conference Review Timeline

T&R Review Milestones		
Pre-Conference Requirement	Unit(s)	By-Date
Coordinate Conference Date & Release Convening Msg	MTSS ATB (releases msg.)	NLT 90 days prior to conference date
Nominate Voting Reps to ATB via msg/e-mail.	MARFORs MAWS	NLT 45 days prior to conference
Submit Agenda Items to MTSS	All Units (As Desired)	NLT 45 days prior to conference
Publish Agenda Items	MTSS ATB (releases msg)	NLT 30 days prior to conference
Post-Conference Requirement	Unit(s)	By-Date
Provide Smooth Draft T&R Manual To ATB	MTSS	NLT 10 days after conference completion
Conference Report msg.	MTSS ATB (releases msg.)	NLT 10 days after conference completion
Provide Concurrence with T&R draft to ATB	MARFORs	NLT 45 days after conference completion
Forward MARFOR Comments to DC AVN	ATB	NLT 60 days after conference completion
Provide Concurrence with T&R draft to ATB	DC AVN	NLT 90 days after conference completion
Announce Interim Approval	ATB	ASAP Upon MARFOR & DC AVN Concurrence
Administrative Review	ATB	ASAP Upon MARFOR & DC AVN Concurrence
Obtain CG TECOM Signature & Publish as NAVMC	ATB	ASAP Upon DC AVN Concurrence

4.6. T&R CORRESPONDENCE CHANGE PROCEDURES:

4.6.1. Recommending Changes. Units recommending T&R changes shall submit proposed changes in accordance with the following paragraphs:

a. Unit requests a change. A unit that desires a change and/or correction of the T&R shall make the request to their MTSS, via email. The MTSS, within 10 days of receiving the request, will contact all like-units, MAWs, and CG TECOM (ATB) with the suggested change, via email, in order to solicit feedback and/or recommendations. All units contacted have 10 days to submit their recommendations to the MTSS. If the proposed change requires coordination with another community, the originating MTSS shall also submit it to the appropriate related MTSS. If the community decides, by majority decision, that a change is not necessary, then the originating MTSS shall make a record of the suggestion and recommendations and take no further action.

b. MTSS requests a change. If a unit suggests a change of the T&R and the community concurs by majority decision, then the MTSS, via email and NLT 5 days upon receipt of unit comments, shall consolidate comments and provide CG TECOM (ATB) a smooth draft of T&R with proposed T&R changes, to include all supporting message documentation from units providing input.

c. CG TECOM (ATB) Actions. Within 10 days upon receipt of draft proposed changes from MTSS, CG TECOM (ATB) shall release a T&R Change Recommendation via naval message to the MARFORs and CMC (DC AVN). The MARFORs shall review the proposed change(s) and provide either a

concurrence or non-concurrence with justification NLT 10 days after the release of the change recommendation message. Immediately upon receipt of MARFOR and CMC (DC AVN) concurrence, CG TECOM (ATB) shall announce the Interim Approval, perform an administrative review, and submit for CG TECOM signature. Once the Interim Approval is signed CG TECOM (ATB) will publish as a NAVMC Change. (See Figure 4-05 and 4-06)

d. CMC (DC AVN) and MARFOR Actions. As previously stated in paragraph 4.6.1.c above, CMC (DC AVN) and MARFORs shall review the proposed T&R change and concur or non-concur with justification to CG TECOM (ATB) within 10 days of the syllabus change recommendation message release. Unresolved issues shall be forwarded to DC AVN for decision. Upon MARFOR and CMC concurrence, CG TECOM (ATB) shall release a message approving the T&R syllabus change for interim use and post it to the CG TECOM (ATB) website.

e. CG TECOM (ATB) shall attach CMC (DC AVN) and MARFOR comments and forward the change for CG TECOM signature as a NAVMC change. When the NAVMC change is signed, CG TECOM (ATB) shall release a message announcing the NAVMC DIR has been changed (the NAVMC change replaces the interim T&R syllabus change). CG TECOM (ATB) shall post the NAVMC change to the CG TECOM (ATB) website and coordinate with CMC (ARDE) to post the change to the HQMC website.

4.6.2. T&R Correspondence Change Timeline. Table 4-03 below outlines and summarizes T&R correspondence change milestones and tasks:

Table 4-03.--T&R Correspondence Change Timeline  
T&R Correspondence Change Milestones

Task	Entity Performing Task	By-Date
Request for T&R Change, by email, to MTSS.	Unit that requests T&R Change	NA
Forward proposed change to all applicable units, via email, for review and/or comment. (Copy CG TECOM (ATB) and MAW on message)	MTSS	NLT 10 days after receipt of change request
Submit comments to MTSS.	All units concerned; ATB	NLT 10 days after request for comments
Consolidate comments & provide ATB a smooth draft of proposed changes.	MTSS	NLT 5 days after request for comments
Release T&R Change Recommendation via naval msg.	ATB	NLT 10 days after request for comments
Review Proposed Change & Provide Concurrence/Non-Concurrence with justification	MARFOR DC AVN	NLT 10 days after release of change recommendation msg
Announce Interim Approval	ATB	ASAP Upon MARFOR & DC AVN Concurrence
Administrative Review	ATB	ASAP Upon MARFOR & DC AVN Concurrence
Obtain CG TECOM Signature & Publish as NAVMC Change	ATB	ASAP Upon DC AVN Concurrence

4.7. T&R UPDATE APPROVAL. When a T&R manual update or change is approved for use, the approved version of the manual becomes the training standard for all applicable units. Units shall transition to the approved T&R syllabus as soon as practicable.

4.8. T&R ADMINISTRATION MESSAGE TEMPLATES. The following message samples are provided for MTSS guidance:

Table 4-04.--T&R Naval Message Sample List

Figure	Sample Title
4-01	T&R Conference Announcement Message
4-02	Agenda Item Message
4-03	Conference Report Message Requesting MARFOR concurrence
4-04	Message Requesting DC AVN Concurrence
4-05	Interim Approval Message
4-06	Final Approval Message

FM CG TECOM QUANTICO VA ATB  
TO MARFORS  
MAWS  
INFO CMC WASHINGTON DC AVN (ASL, ETC.)  
MEFS  
MAWTS-1  
MAG/MACG/MWSG AS REQUIRED  
SQUADRONS/UNITS AS REQUIRED  
HMX-1 AS REQUIRED  
MSGID/GENADMIN/CG TECOM ATB/  
SUBJ/CONFERENCE ANNOUNCEMENT FOR AV-8 MAINTENANCE TRAINING AND READINESS (T&R)  
SYLLABI MOS 6312, 6332, 6531//  
REF/A/NAVMC DIR 4790.XX//  
REF/B/NAVMC XXXX.XX //  
NARR/REF A IS AIRCRAFT MAINTENANCE T&R PROGRAM MANUAL. REF B IS AV-8B AIRCRAFT  
MAINTENANCE T&R MANUAL FOR MOS 6312, 6332 AND 6531.//  
POC/MARINE, I.M./MSGT/TECOM ATB ENLISTED AVIATION TRAINING/DSN: 278-xxxx//  
RMKS/1. PER REFS A, T&R CONFERENCE FOR STANDARDIZATION OF AIRCRAFT MAINTENANCE  
TRAINING SYLLABI FOR AV-8 MAINTENANCE PERSONNEL WILL TAKE PLACE AT MCAS YUMA, BLD  
XXX, FROM XX-XX JUL XX, 0800 TO 1630 DAILY. TENTATIVE SCHEDULE LISTED BELOW:  
XX JUL: OPENING RMKS, ADMIN INFO, DISC ITEMS, MAINT STAN ITEMS, AGENDA ITEMS, T&R  
CONF.  
XX-XX JUL: T&R CONF CONTINUED.  
XX JUL: MAINT STAN ITEMS, T&R WRAP-UP.  
2. SPECIFIC T&R AGENDA TOPICS FROM UNITS ARE TO BE SUBMITTED IAW REF A (ITEM,  
DISCUSSION, RECOMMENDATION FORMAT) TO (INSERT APPROPRIATE MTSSs), NLT XX JUN XX.  
COMMANDS OR SUBJECT MATTER EXPERTS DESIRING DISCUSSION BRIEFING TIME ON XX JUL MUST  
CONTACT MTSS NLT XX JUN XX. REQUEST ALL BRIEFS AND DOCUMENTS BE PREPARED USING  
MICROSOFT OFFICE PROGRAMS.  
3. THE CURRENT VERSION OF REF B MAY BE VIEWED IN ADOBE ACROBAT FROM INTERNET SITE  
FOR AVIATION TRAINING BRANCH, TRAINING AND EDUCATION COMMAND HOMEPAGE: (INSERT WEB  
ADDRESS)  
4. PER REF A, VOTING MEMBERS CONSIST OF REPS FROM THE FOLLOWING  
ORGANIZATIONS:  
1. COMMARFORPAC  
2. COMMARFORCOM  
3. COMMARFORRES  
4. CG 1ST MAW  
5. CG 2ND MAW  
6. CG 3RD MAW  
7. CG 4TH MAW  
REPS SHOULD BE EXPERIENCED IN DAY-TO-DAY EXECUTION AND SUPERVISION OF AIRCRAFT  
MAINTENANCE TRAINING PROGRAM AND BE ABLE TO REPRESENT THEIR COMMAND ON EACH ISSUE.  
FAMILIARITY WITH THE REFS IS CRUCIAL TO THE SUCCESS OF THE CONF. CG TECOM WILL  
FUND ONE VOTING REPRESENTATIVE FROM EACH OF THE ABOVE ORGANIZATIONS. REQUEST  
MARFORS & MAWS SUBMIT ATTENDEE NOMINATIONS TO CG TECOM NLT XX JUN XX, VIA MSG TO CG  
TECOM ATB.  
INFORMATION:  
FULL NAME, SSN, MOS, BILLET, COMMAND, EMAIL, DSN PHONE.  
5. APPROPRIATION DATA AND T&R AGENDA WILL BE PUBLISHED VIA SEPCOR.  
ATTENDEES NOT LISTED IN PARA 4 WILL BE UNIT FUNDED.  
6. RECOMMENDED ATTENDEES: AAMO, QAO, SNCO'S (DIV CHIEFS) AND MATMEP LEVEL III/CDI  
EXPERIENCE. 7. ATTENDEES ARE RESPONSIBLE FOR TRAVEL AND BILLETING ARRANGEMENTS.  
XXX BOQ DSN: 269-3578.  
8. UNIFORM IS MARPAT UTILITIES OR SERVICE EQUIVALENT.//  
BT

Figure 4-01.--T&R Conference Announcement Message (Sample)

NAVMC 4790.01

2 OCT 09

FM CG TECOM QUANTICO VA ATB  
TO MARFORS  
MAWS  
INFO CMC WASHINGTON DC AVN (ASL, ETC.)  
MEFS  
MAWTS-1  
MAG/MACG/MWSG AS REQUIRED  
SQUADRONS/UNITS AS REQUIRED  
HMX-1 AS REQUIRED  
MSGID/GENADMIN/CG TECOM ATB/  
SUBJ/AGENDA ITEMS FOR AV-8 MAINTENANCE TRAINING AND READINESS (T&R) CONFERENCES  
SYLLABI FOR MOS 6312; 6332 AND 6531//  
REF/A/NAVMC DIR 4790.XX//  
REF/B/NAVMC XXXX.XX //  
NARR/REF A IS AIRCRAFT MAINTENANCE T&R PROGRAM MANUAL. REF B IS AV-8B AIRCRAFT  
MAINTENANCE T&R MANUAL FOR MOS 6312, 6332 AND 6531.//  
POC/MARINE, I. M./MSGT/TECOM ATB ENLISTED AVIATION TRAINING/DSN: 278-xxxx//  
RMKS/1. PER REFS, T&R CONFERENCE FOR STANDARDIZATION OF AIRCRAFT MAINTENANCE  
TRAINING SYLLABI FOR AV-8 MAINTENANCE PERSONNEL (MOS 6312, 6332, AND 6531) WILL TAKE  
PLACE AT MCAS YUMA, BLD XXX, FROM XX-XX JUL XX, 0800 TO 1630 DAILY. TENTATIVE  
SCHEDULE LISTED BELOW:  
XX JUL: OPENING RMKS, ADMIN INFO, DISC ITEMS, MAINT STAN ITEMS, AGENDA ITEMS, T&R  
CONF.  
XX-XX JUL: T&R CONF CONTINUED.  
XX JUL: MAINT STAN ITEMS, T&R WRAP-UP.  
2. PER REF A, CONFERENCE VOTING MEMBERS HAVE BEEN IDENTIFIED AS  
FOLLOWS:  
AV-8B MAINT T&R CONFERENCE:  
1. COMMARFORPAC: MGYSGT I. M. MARINE  
2. COMMARFORLANT: MSGT I. M. MARINE  
3. COMMARFORRES: MSGT I. M. MARINE  
4. CG FIRST MAW: MSGT I. M. MARINE  
5. CG SECOND MAW: MSGT I. M. MARINE  
6. CG THIRD MAW: MSGT I. M. MARINE  
7. CG FOURTH MAW: MSGT I. M. MARINE  
3. PER REF A, SUBMITTED AGENDA ITEMS HAVE BEEN CONSOLIDATED BY THE AV-8 MTSS.  
CONFERENCE AGENDA ITEMS AND CURRENT VERSION OF REF B MAY BE VIEWED IN ADOBE ACROBAT  
FROM THE INTERNET SITE FOR AVIATION TRAINING BRANCH, TRAINING AND EDUCATION COMMAND  
HOMEPAGE: (INSERT WEB ADDRESS)  
FOLLOW LINKS OF TRAINING COMMAND, AVIATION TRAINING, DOCUMENTS, TRAINING AND  
READINESS. CONFERENCE VOTING MEMBERS SHOULD ARRIVE PREPARED WITH COMMAND POSITIONS  
ON AGENDA ITEMS TO FACILITATE CONDUCT OF CONFERENCE.  
4. APPROPRIATION DATA AND T&R AGENDA WILL BE PUBLISHED VIA SEPCOR. ATTENDEES NOT  
LISTED IN PARA 2 WILL BE UNIT FUNDED.  
5. RECOMMENDED ATTENDEES: AAMO, QAO, SNCO'S (DIV CHIEFS) AND MATMEP LEVEL III/CDI  
EXPERIENCE.  
6. ATTENDEES ARE RESPONSIBLE FOR TRAVEL AND BILLETING ARRANGEMENTS. XXXX BOQ DSN:  
XXX-XXXX.  
7. UNIFORM IS MARPAT UTILITIES OR SERVICE EQUIVALENT.//  
BT

Figure 4-02.--T&R Conference Agenda Item Message (Sample)

FM CG TECOM QUANTICO VA ATB  
TO MARFOR  
MAWS  
INFO CMC WASHINGTON DC AVN (ASL, ETC.)  
MEFS  
MAWTS-1  
MAG/MACG/MWSG AS REQUIRED  
SQUADRONS/UNITS AS REQUIRED  
HMX-1 AS REQUIRED  
MSGID/GENADMIN/CG TECOM ATB/  
SUBJ/AV-8B MAINTENANCE TRAINING AND READINESS CONFERENCE REPORT (MOS 6312, 6332 AND  
6531)//  
REF/A/NAVMC DIR XXXX.XX//  
REF/B/NAVMC XXXX.XX //  
REF/C/MSG/CG TECOM QUANTICO VA/XXXXXXXXZMAYXXXX//  
NARR/REF A IS AIRCRAFT MAINTENANCE T&R PROGRAM MANUAL. REF B IS AV-8B MAINT T&R  
MANUAL. REF C IS T&R CONF ANNOUNCEMENT MSG.//  
POC/MARINE, I. M./MSGT/TECOM ATB ENLISTED AVIATION TRAINING/DSN: 278-xxxx//  
RMKS/1. PER THE REFS, A T&R CONFERENCE WAS HELD AT MCAS YUMA XX-XX  
JUL XX TO UPDATE AV-8B MAINTENANCE TRAINING SYLLABI.  
2. CONFERENCE MEMBERS REPRESENTING VOTING COMMANDS WERE AS FOLLOWS:  
AV-8B MAINT T&R CONFERENCE:  
1. COMMARFORPAC: MGYSGT I. M. MARINE  
2. COMMARFORLANT: MSGT I. M. MARINE  
3. COMMARFORRES: MSGT I. M. MARINE  
4. CG FIRST MAW: MSGT I. M. MARINE  
5. CG SECOND MAW: MSGT I. M. MARINE  
6. CG THIRD MAW: MSGT I. M. MARINE  
7. CG FOURTH MAW: MSGT I. M. MARINE  
3. SIGNIFICANT CHANGE PROPOSALS TO AV-8B T&R MAINTENANCE MANUALS INCLUDE:  
STANDARDIZATION OF CDI SYLLABI, REVISION OF UNIT CORE COMPETENCY REQUIREMENTS, AND  
ESTABLISHMENT OF MULTIPLE QCDL SYLLABI.  
4. THE DRAFT AV-8B MAINT T&R MANUAL MAY BE VIEWED IN ADOBE ACROBAT FROM INTERNET  
SITE FOR AVIATION TRAINING BRANCH, TRAINING AND EDUCATION COMMAND HOMEPAGE: (INSERT  
WEB ADDRESS). FOLLOW LINKS OF (INSERT STEP-BY-STEP PROCESS FOR FINDING SPECIFIC WEB  
PAGE, IF NEEDED)  
6. PER REF A, REQUEST MARFOR ADDRESSEES CONSOLIDATE SUBORDINATE UNIT COMMENTS AND  
CONCUR/NON-CONCUR WITH JUSTIFICATION OF DRAFT AV-8B MAINT T&R MANUAL VIA MSG TO CG  
TECOM NLT XX SEP XX.//  
BT

Figure 4-03.--T&R Conference Report Message Requesting MARFOR Concurrence  
(Sample)

NAVMC 4790.01  
2 OCT 09

```
FM CG TECOM QUANTICO VA ATB
TO CMC WASHINGTON DC AVN ASL
INFO MARFORS
MSGID/GENADMIN/CG TECOM ATB//
SUBJ/DRAFT AV-8B MAINTENANCE T&R MANUAL//
REF/A/DOC/NAVMC 4790.XX//
REF/B/MSG/CG TECOM ATB/XXXXXXZ/FEB/20XX//
REF/C/MSG/COMMARFORCOM/XXXXXXZ/FEB/20XX//
REF/D/MSG/COMMARFORPAC/XXXXXXZ/FEB/20XX//
REF/E/MSG/COMMARFORRES/XXXXXXZ/FEB/20XX//
NARR/REF A IS AIRCRAFT MAINTENANCE T&R PROGRAM MANUAL. REF B IS MSG STAFFING DRAFT
AV-8B MAINT T&R FOR MARFOR CONCURRENCE. REFS C-E PROVIDE MARFOR CONCURRENCE WITH
DRAFT AV-8B MAINT T&R MANUAL.//
POC/MARINE, I. M./MSGT/TECOM ATB ENLISTED AVIATION TRAINING/TEL:DSN 278-xxxx
/EMAIL:IM.MARINE@USMC.MIL//
RMKS/1. A MAINT T&R CONFERENCE FOR THE AV-8B WAS CONDUCTED AT MCAS YUMA XX-XX JUL
XX. PER REFS B-E, COMMARFORCOM, COMMARFORPAC, AND COMMARFORRES CONCUR WITH THE
DRAFT T&R MANUAL.
2. PER REF A, REQ DC AVN ASL CONCUR OR NON-CONCUR WITH JUSTIFICATION WITH THE AV-8B
MAINT T&R DRAFT MANUAL.
3. THE DRAFT T&R MANUAL MAY BE VIEWED AT (INSERT WEB ADDRESS)
SELECT "DRAFT TRAINING AND READINESS MANUALS."
4. REQ RESPOND VIA DMS MSG TO PLA CG TECOM QUANTICO VA ATB NLT 7 APR 06.//
BT
```

Figure 4-04.--T&R Conference Message Requesting DC AVN Concurrence  
(Sample)

```
FM CG TECOM QUANTICO VA ATB
TO MARFORS
MAWS
MEFS
MAG/MACG/MWSG AS REQUIRED
SQUADRONS/UNITS AS REQUIRED
MAWTS-1
HMX 1 AS REQUIRED
INFO CMC WASHINGTON DC AVN ASL ETC. AS REQUIRED
MSGID/GENADMIN/CG TECOM ATB//
SUBJ/ AV-8B MAINT T&R INTERIM APPROVAL//
REF/A/DOC/NAVMC DIR 4790.XX//
REF/B/MSG/COMMARFORCOM/XXXXXXZ/FEB/20XX//
REF/C/MSG/COMMARFORPAC/XXXXXXZ/FEB/20XX//
REF/D/MSG/COMMARFORRES/XXXXXXZ/FEB/20XX//
REF/E/MSG/CMC WASHINGTON DC ASL/XXXXXXZ/MAR/20XX//
NARR/REF A IS AIRCRAFT MAINT T&R PROGRAM MANUAL. REFS B THROUGH E PROVIDE
CONCURRENCE WITH DRAFT AV-8B MAINT T&R MANUAL.
POC/MARINE, I. M./MSGT/TECOM ATB ENLISTED AVIATION TRAINING/TEL:DSN 278-xxxx
/EMAIL:IM.MARINE@USMC.MIL//
RMKS/1. PER REFS, INTERIM VERSION OF THE AV-8B MAINT T&R MANUAL IS APPROVED FOR
USE. THE AV-8B MAINT T&R MANUAL WILL BE PUBLISHED AS A NAVMC DIRECTIVE.
2. THE MANUAL IS MARKED "INTERIM APPROVED XX APR XX" AND MAY BE ACCESSED AT (INSERT
WEB ADDRESS)
3. T&R DOWNLOADS MAY BE ACCESSED AT (INSERT WEB ADDRESS)
4. REQ MAGS ENSURE DISSEMINATION TO SQUADRONS.//
BT
```

Figure 4-05.--Interim Approval Message (Sample)

FM CG TECOM ATB(UC)  
TO MARFORs  
MEFS  
MAWS  
MAG/MACG/MWSG AS REQUIRED  
SQUADRONS/UNITS AS REQUIRED  
MAWTS-1  
INFO CMC WASHINGTON DC AVN ASL ETC. AS REQUIRED  
HMX-1 AS REQUIRED  
MSGID/GENADMIN/CG TECOM ATB//  
SUBJ/AV-8B MAINT T&R MANUAL//  
REF/A/DOC/NAVMC DIR XXXX.XX//  
POC/MARINE, I. M./MSGT/TECOM ATB ENLISTED AVIATION TRAINING/TEL:DSN 278-xxxx  
/EMAIL:IM.MARINE@USMC.MIL//  
RMKS/1. PER REF A, AV-8B MAINT T&R MANUAL HAS BEEN SIGNED AS NAVMC DIRECTIVE  
XXXX.XX DATED XX MAY XX.  
2. IT MAY BE ACCESSED ON THE ATB WEBSITE: (INSERT WEB ADDRESS)  
SELECT "TRAINING & READINESS MANUALS," "FIXED WING TRAINING AND READINESS MANUALS."  
3. TMS DOWNLOAD [TBD]  
4. THIS NAVMC DIRECTIVE IS THE ONLY APPROVED AV-8B MAINT T&R MANUAL. ENSURE ALL  
PREVIOUS VERSIONS/INTERIM VERSIONS ARE REPLACED WITH THE DIRECTIVE LISTED ABOVE.  
5. REQUEST MAGS ENSURE DISSEMINATION TO SQUADRONS.//  
BT

Figure 4-06.--Final Approval Message (Sample)

**CHAPTER 5  
AIRCRAFT MAINTENANCE TRAINING AND READINESS  
SYLLABUS STRUCTURE AND DEVELOPMENT**

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2 OCT 09

**CHAPTER 5  
TRAINING AND READINESS  
SYLLABUS STRUCTURE AND DEVELOPMENT**

5.1. PURPOSE. The purpose of this chapter is to provide guidance in order to develop or revise Aircraft Maintenance Training and Readiness (T&R) manuals. Specifically, this chapter provides standardization policy for the structure, organization, and content of aircraft maintenance T&R manuals. Aircraft Maintenance T&Rs shall adhere to the content, sequence, and format requirements delineated herein. Communities shall comply with policy in this manual when developing or updating aircraft maintenance T&R Manuals.

5.1.1. T&R Development. The development or revision of a T&R manual is a time-intensive and complex process. Aircraft Maintenance T&R Maintenance Training Syllabus Sponsors (MTSS) and Subject Matter Experts (SMEs) are heavily relied upon during this process and therefore should be cognizant of the procedures and constraints inherent in creating or updating a T&R. Draft T&Rs are created by Military Occupational Specialty (MOS) MTSSs and MOS SMEs with guidance from CG TECOM (ATB). These draft T&Rs are then brought to the community T&R conference and are further refined to match SME input. Some factors to consider when developing or updating a T&R include: MOS training requirements, concepts, and definitions as well as Aircraft Maintenance Training and Readiness Program (AMTRP) guidance, structure, and System-Subsystem-Task relationships.

5.1.2. T&R Systematic Review. When aircraft maintenance MOS MTSSs (with the aid of SMEs and CG TECOM (ATB)) determine that a revision is needed, an MOS-specific Aircraft Maintenance T&R conference may be held to develop, review, or revise MOS training requirements. The following areas need to be considered in preparation for a T&R update:

a. MTSSs/SMEs:

(1) Shall review unit Mission Statements and Tables of Organization; updating each as necessary.

(2) Shall review Systems/Subsystems applicable to the MOS for additions, deletions, and changes.

(3) Shall review Maintenance Department-level Core Model Minimum Requirements (CMMR) within the CMMR Tables and shall update the System Skill Proficiency matrix with additions, deletions, and changes.

(4) Shall review and update the Maintenance Leadership CMMR table for additions, deletions, or changes to the list of critical Qualifications and Designations and shall update the CMMR in accordance with community desires.

(5) Shall review and update the Support Equipment Licensing CMMR table for additions, deletions, or changes to the list of critical SE Licenses and shall update the CMMR in accordance with community desires.

(6) Shall review T&R Tasks for additions, deletions, and modifications in both OJT and NAMP sections to ensure all Tasks are applicable and are located in the proper performance level. Adjustments may be made as needed to the T&R Tasks themselves.

5.2. T&R STRUCTURE AND CONTENTS:

5.2.1. Organizational Maintenance Activity (OMA) T&Rs. Aircraft Maintenance T&R manuals are categorized similar to the Marine Corps Intermediate Level (I-Level) Maintenance Department Organization Structure listed in COMNAVAIRFORINST 4790.2A. The I-Level structure has been determined to best support OMA and future I-Level Maintenance T&R efforts. Each Aircraft Specific MOS shall be included in a Specific Type/Model/Series (T/M/S) Maintenance division level T&R (see Table 5-01). Non-Aircraft Specific MOSs are logically grouped together and included in a Maintenance division level T&R that spans all Type/Model/Series (see Table 5-02). The number of chapters depends on the number of MOSs within the given maintenance division. The first chapter of all OMA Level T&Rs shall contain the unit's Maintenance Department Core Competency Requirements (CMMR tables). For example, a KC-130J Avionics T&R will have three chapters. Chapter one contains Maintenance Department-level CMMR requirements. Chapters two and three will contain the specific training requirements for KC-130J MOSs 6336-Electrical System Technician and 6316-Comm/Nav System Technician.

Table 5-01.--Aircraft Specific MOS T&R Manual Layout

<i>Specific T/M/S</i>		
<i>Line Division</i>	<i>Airframes Division</i>	<i>Avionics Division</i>
611X	615X	631X
617X	625X	632X
621X	628X	633X
		6386

Table 5-02.--Non-Aircraft Specific MOS T&R Manual Layout

<i>All Applicable T/M/S</i>							
<i>Maint Control (MC)</i>	<i>Quality Assurance (QA)</i>	<i>Maint Admin (MA)</i>	<i>Aviation Life Support Systems (ALSS)</i>	<i>Support Equipment (SE)</i>	<i>Individual Material Readiness List (IMRL)</i>	<i>Armament (ORD)</i>	<i>Aviation Logistics Information Management and Support (ALIMS)</i>
6012*	6018*	6046 6049*	6048	6072 6073	6042	6531 6541	6694

\* denotes a Necessary MOS (NMOS)

5.2.2. Paragraph Structure. All paragraphs in a T&R manual shall be numbered sequentially IAW Figure 5-01. Chapter and section numbering shall begin with a 2-position number (separated by a decimal), with the section name in all capitalized letters. A number and period (1.) will be added for the first paragraph and all subsequent paragraphs (subparagraphs) will be appropriately indented under the 3-digit paragraphs as shown below.

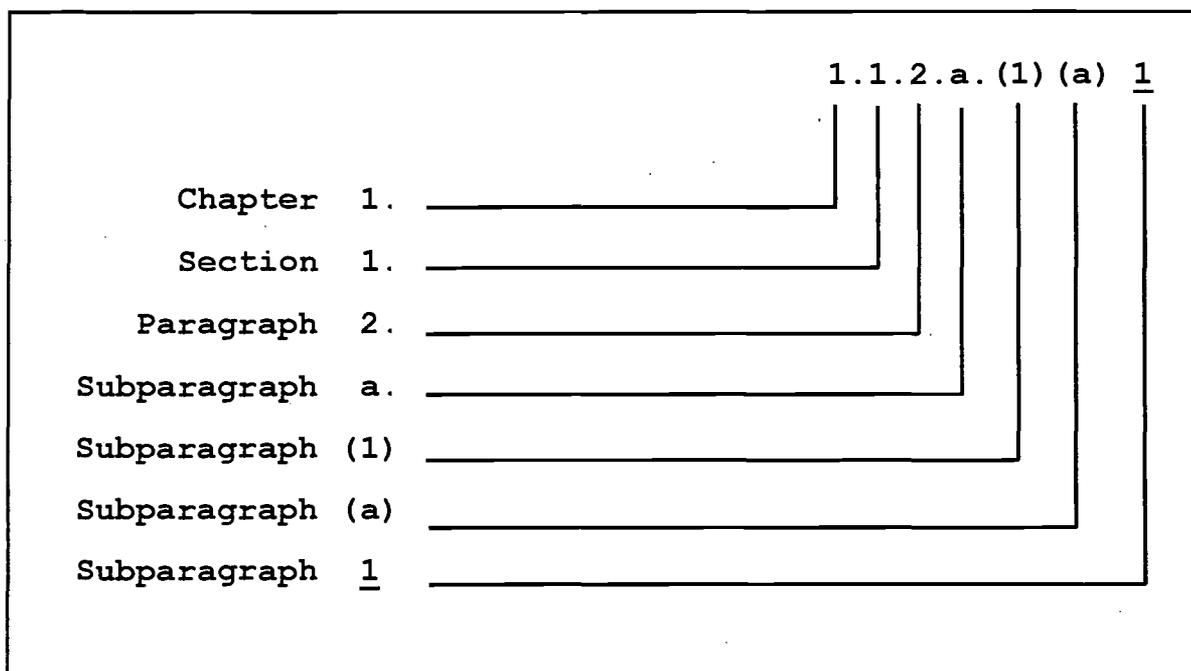


Figure 5-01.--Maintenance T&R Paragraph Numbering Guide

5.3. T&R MANUAL CHAPTER 1 FORMAT:

5.3.1. This section delineates Chapter 1 T&R manual requirements. Subparagraphs in Chapter 1 include applicable Unit or MOS Mission Statement, Table of Organization (T/O) information and supporting CMMR Tables. Formatting examples are provided for each required paragraph, shown in *italics*, throughout section 5.3. All bracketed items "[ ]" require community-specific information to be inserted. Figure 5-02 identifies the syllabus format for Chapter 1:

- 1.1. MAINTENANCE DEPARTMENT CORE COMPETENCY
- 1.2. UNIT or MOS MISSION
- 1.2.1. Maintenance Department Mission Statement
- 1.3. TABLE OF ORGANIZATION  
TABLE 1-XX thru 1-XX, T/O FOR UNIT
- 1.4. SYSTEM SKILL PROFICIENCY (SSP) CORE MODEL MINIMUM REQUIREMENT  
TABLE 1-XX, COMMUNITY SYSTEM SKILL PROFICIENCY APPLICABILITY MATRIX  
TABLE 1-XX, COMMUNITY SYSTEM SKILL PROFICIENCY CMMR MATRIX
- 1.5. MAINTENANCE LEADERSHIP CORE MODEL MINIMUM REQUIREMENT  
TABLE 1-XX, COMMUNITY MAINTENANCE LEADERSHIP CMMR
- 1.6. SUPPORT EQUIPMENT LICENSING CORE MODEL MINIMUM REQUIREMENT  
TABLE 1-XX, COMMUNITY SUPPORT EQUIPMENT LICENSING CMMR

Figure 5-02.--Syllabus Format (First Chapter)

5.3.2. T&R Chapter Titles: T&R Chapter 1 shall be titled as follows:

*"[(T/M/S Division) or (Non-Aircraft Specific MOS Title)]  
MAINTENANCE DEPARTMENT TRAINING AND READINESS  
CORE COMPETENCY REQUIREMENTS."*

5.3.3. Required Paragraphs. Chapter 1 shall include the below listed paragraphs if applicable in the order provided. It is understood that some communities may need to expound on information, therefore as long as the paragraphs appear in proper sequence, additional sub-paragraphs and information may be inserted. All paragraphs shall be numbered sequentially, keeping with the referenced format shown in Figure 5-01.

- a. 1.1. Maintenance Department Core Competency
- b. 1.2. Unit or MOS Mission Statement
- c. 1.2.1. Maintenance Department Mission Statement
- d. 1.3. Table of Organization Information
- e. 1.4. System Skill Area Applicability Overview Matrix
- f. 1.5. System Skill Proficiency(SSP) CMMR
- g. 1.6. Maintenance Leadership CMMR
- h. 1.7. Support Equipment Licensing CMMR

5.3.4. Maintenance Department Core Competency. The paragraph provided below shall appear verbatim as the first paragraph of Chapter 1.

*"1.1. Marine Aviation plays a crucial role in the Marine Air Ground Task Force's (MAGTF's) ability to conduct Maneuver Warfare. The ultimate goal of Marine Aviation is to attain the highest possible combat readiness to support Expeditionary Maneuver Warfare while preserving and conserving our Marines and equipment. Embedded within our combat readiness is the ability to rapidly, effectively, and efficiently deploy on short notice, and to quickly and effectively plan for crises and/or contingency operations, thereby ensuring Marine Aviation remains ready for combat when and where the need arises. The Aircraft Maintenance T&R Program (AMTRP) represents the collaborative effort of Marine Aircraft Maintenance Subject Matter Experts (SMEs) who design training standards to maximize efficient and effective aircraft system maintenance. These standards describe and define Maintenance Department/Division capabilities and requirements necessary to maintain like-unit proficiency in System and Subsystem skills, Qualifications, Designations, and Licensing. Training tasks are based on specific requirements and performance standards that ensure personnel maintain a common base of training and depth of capabilities. The T&R comprises a building block approach to ensure personnel are trained and remain ready, relevant, and fully capable of supporting the MAGTF commander."*

5.3.5. Mission Statements:

a. Unit Mission. The unit mission statement is a clear and concise description of a unit's primary mission(s). Unit mission statements are only required for Aircraft Specific MOS T&Rs due to their ability to be associated to a specific T/M/S. The mission statement shall be extracted directly from the respective community aircrew T&R and shall be formatted as follows:

*"1.2. [T/M/S] MISSION. Support the MAGTF commander by (provide general mission description; i.e. destroying surface targets and enemy aircraft), day or night under all weather conditions during expeditionary, joint or combined operations."*

b. MOS Mission. The MOS mission statement is a clear and concise description of an MOS. MOS mission statements are only required for Non-Aircraft Specific MOS T&Rs. Each MOS shall have an MOS Mission statement, extracted directly from the current MOS Manual and shall be formatted as follows:

*"1.2. [Non-Aircraft Specific MOS] MISSION. Flight Equipment Technicians inspect, maintain, and repair parachutes; flight survival equipment; flight equipment; carbon dioxide, and gaseous and liquid oxygen equipment."*

c. Maintenance Department Mission. The Maintenance Department Mission statement shall be formatted as per Figure 5-01. The below paragraph is an example Maintenance Department Mission statement.

*"1.2.1. Maintenance Department Mission. The Maintenance Department supports the overall unit mission by providing enough RBA/RFT aircraft to support operations in accordance with higher headquarters tasking."*

5.3.6. Table of Organization (T/O) Information. Unit T/O information shall be derived from the current T/O, managed by Total Force Structure, Marine Corps Combat Development Command (MCCDC).

a. Aircraft Specific MOS T&Rs shall display the T/M/S community, list the number of aircraft authorized, and personnel structure by MOS as shown in example tables below. Units that provide standardized sub-units such as detachments or teams, by T/O, shall list such sub-units with a designation (i.e. alpha, bravo, etc.) if there is more than one listed. The T/O tables reflect numbers of individuals by MOS, without reference to rank or actual work center location.

Example:

*"1.3. [T/M/S] TABLE OF ORGANIZATION (T/O). Refer to each Table of Organization (####) managed by Total Force Structure, MCCDC, for current authorized organizational structure for [T/M/S] units. As of this publication date, [T/M/S] units are authorized:*

*"The following table [(Tables 1-0X)] is provided as a quick reference for planning and/or awareness purposes only."*

Table 1-0X [T/M/S] Table of Organization (T/O) Information Example

AV-8B/TAV-8B Squadron															
	PL	AF		AVI		QA	MC	MA		ALSS	SE		IMRL	ORD	ALIMS
	6212	6252	6282	6312	6332	6018	6012	6046	6049	6048	6072	6073	6042	6531	6694
VMA [# AC]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
VMA (-) [# AC]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
VMA DET [# AC]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
VMAT [# AC]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
VMAT (-) [# AC]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#
VMAT DET [# AC]	#	#	#	#	#	#	#	#	#	#	#	#	#	#	#

Notes: Numbers equal the T/O-specified numbers of MOS qualified individuals regardless of grade.

b. Non-Aircraft Specific MOS T&Rs shall display the MOS community, list each T/M/S the MOS supports and number of aircraft authorized, and personnel structure by MOS as shown in example tables below. Units that provide standardized sub-units such as detachments or teams, by T/O, shall list such sub-units with a designation (i.e. alpha, bravo, etc.) if there is more than one listed. The T/O tables reflect numbers of individuals by MOS, without reference to rank or actual work center location.

Example:

"1.3. [Non-Aircraft Specific MOS] TABLE OF ORGANIZATION (T/O). Refer to each applicable Table of Organization (####) managed by Total Force Structure, MCCDC, for current authorized organizational structure for Non-Aircraft Specific MOS personnel. As of this publication date, units are authorized:

"The following table (Tables 1-0X) is provided as a quick reference for planning and/or awareness purposes only."

Table 1-0X [Non-Aircraft Specific MOS]  
Table of Organization (T/O) Information Example

Aviation Life Support System

Rotary Wing Squadrons

CH-46		CH-53		H-1	
HMM [# AC]	HMMT [# AC]	HMH [# AC]	HMT [# AC]	HMLA [# AC]	HMLAT [# AC]
#	#	#	#	#	#
HMM (-) [# AC]	HMMT (-) [# AC]	HMH (-) [# AC]	HMT (-) [# AC]	HMLA (-) [# AC]	HMLAT (-) [# AC]
#	#	#	#	#	#
HMM DET [# AC]	HMMT DET [# AC]	HMH DET [# AC]	HMT DET [# AC]	HMLA DET [# AC]	HMLAT DET [# AC]
#	#	#	#	#	#

Fixed Wing Squadrons

AV-8		F/A-18		EA-6		KC-130	F-35	
VMA [# AC]	VMAT [# AC]	VMFA [# AC]	VMFAT [# AC]	VMAQ [# AC]	VMAQT [# AC]	VMGR [# AC]	VMFA [# AC]	VMFAT [# AC]
#	#	#	#	#	#	#	#	#
VMA (-) [# AC]	VMAT (-) [# AC]	VMFA (-) [# AC]	VMFAT (-) [# AC]	VMAQ (-) [# AC]	VMAQT (-) [# AC]	VMGR (-) [# AC]	VMFA (-) [# AC]	VMFAT (-) [# AC]
#	#	#	#	#	#	#	#	#
VMA DET [# AC]	VMAT DET [# AC]	VMFA DET [# AC]	VMFAT DET [# AC]	VMAQ DET [# AC]	VMAQT DET [# AC]	VMGR DET [# AC]	VMFA DET [# AC]	VMFAT DET [# AC]
#	#	#	#	#	#	#	#	#

Tiltrotor Squadrons

MV-22	
VMM [# AC]	VMMT [# AC]
#	#
VMM (-) [# AC]	VMMT (-) [# AC]
#	#
VMM (-) [# AC]	VMMT (-) [# AC]
#	#

Notes: Numbers equal the T/O-specified numbers of MOS qualified individuals regardless of grade.

5.3.7. Core Model Minimum Requirement (CMMR). The CMMR establishes the required numbers of System Skilled Proficient (SSP), specific interest Qualification/Designation, and Support Equipment licensing requirements for the Maintenance Department. The CMMR is not the minimum number required to execute the task but rather a reasonable, SME-determined number of skilled individuals required to sustain operations.

a. Squadron Maintenance Departments are expected to be able to produce enough RBA/RFT aircraft to enable the unit to conduct sustained 24-hour operations. To fulfill this requirement, Maintenance Departments strive to maintain the ability to conduct, at the OMA-level, "two-shift" maintenance. The CMMR provides a standard of measure for maintenance occupational fields (60XX, 61XX, 62XX, 63XX, and 65XX). Adherence to Maintenance Core Competency metrics provides a unit with high confidence that it can meet the "two-shift maintenance" requirement; CMMR shall be extracted from Aviation Logistics Electronic Requirements Training System (ALERTS) data initially. As fleet units gain more experience, these numbers can change via the T&R update process.

b. Core Model Minimum Requirements (CMMR) Tables. Training and Readiness CMMR tables provide the format for display of unit requirements for System Skill Proficiency, Maintenance Leadership, and SE Licensing. Units that provide standardized sub-units (detachments, teams, or a variant thereof) shall list appropriate CMMR values for each sub-unit to sustain 24 hour operations. The following tables shall be included in all Maintenance T&Rs:

- (1) System Skill Area Applicability Overview
- (2) System Skill Proficiency CMMR
  - (a) Squadron
  - (b) Squadron Minus
  - (c) Detachment
- (3) Maintenance Leadership CMMR
  - (a) Squadron
  - (b) Squadron Minus
  - (c) Detachment
- (4) Support Equipment Licensing CMMR
  - (a) Squadron
  - (b) Squadron Minus
  - (c) Detachment

c. System Skill Area Applicability Overview Matrix:

(1) System Skill Area structure is derived from the aircraft/equipment Work Unit Code (WUC) Manual, Unified Numbering System (UNS) Manual and/or SME-determined logical grouping of MOS duties. "Table 1-XX.--[T/M/S) or (Non-Aircraft Specific MOS)] Community System Skill Area Applicability Matrix (Example)" provides a means for capturing each system and mapping them to specific MOSS with the Maintenance Department.

(2) Aircraft Specific MOS T&R's System Skill Area Applicability Matrix shall list applicable aircraft WUC/UNS Systems, System Codes, and System abbreviations. Any T/M/S maintenance department MOS that performs tasks on any of the listed systems shall be included in this table which will enable a quick look across the department. Other SME-determined System Skill Areas can be added to the table to provide a holistic community system level view.

Example:

"1.4. [T/M/S] COMMUNITY SYSTEM SKILL AREA APPLICABILITY MATRIX. Maintenance Department training readiness requires SME-determined numbers of System Skill Proficient Marines in order to sustain unit operations. Table 1-[XX], [T/M/S] Community System Skill Area Applicability Matrix, provides a list of all Systems by MOS.

Table 1-XX.--[T/M/S] Community System Skills Area Applicability Matrix (Example)

[AV-8B/TAV-8B] Maintenance System Skill Areas	WUC	Sys Abbrv	PL		AF				AVI				ORD	
			6212		6252		6282		6312		6332		6531	
			V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Insp	030	INSP	X	X	X	X	X	X	X	X	X	X		
Airframe	11	AIRF			X	X	X	X	X	X	X	X		
Crew Stations	12	CREW					X	X	X	X	X	X		
Alighting/Launching	13	LNDG	X	X	X	X			X	X	X	X		
Flight Controls	14	FLTC	X	X	X	X			X	X	X	X		
Emergency Escape	17	EMER					X	X						
Aux Power Plant	24	APPL	X	X					X	X	X	X		
Turbofan Engine	27	TURE	X	X					X	X	X	X		
Power Plant	29	PWRP	X	X			X	X	X	X	X	X		
Air Conditioning	41	ARCT					X	X	X	X	X	X		
Electrical	42	ELEC							X	X	X	X		
Hydraulic/Pneumatic	45	HYDS			X	X			X	X	X	X		
Fuel Distribution	46	FUEL	X	X	X	X			X	X	X	X		
Weapons Control	74	WPCN											X	X
Wire/Connector Repair	XXX	WIRE							X	X	X	X		

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NOTE: "XXX" is entered for those skill areas that do not have a work unit code.

(3) Non-Aircraft Specific MOS T&R's System Skill Area Applicability Matrix shall list all applicable aircraft WUC/UNS Systems, System Codes, and System abbreviations. Other SME-determined System Skill Areas can be added to the table to provide a holistic MOS community system level view across all applicable T/M/S.

Example:

"1.4. [Non-Aircraft Specific MOS] COMMUNITY SYSTEM SKILL AREA APPLICABILITY MATRIX. Maintenance Department training readiness requires SME-determined numbers of System Skill Proficient Marines in order to sustain unit operations. Table 1-[XX], [Non-Aircraft Specific MOS] Community System Skill Area Applicability Matrix, provides a list of Systems across all applicable T/M/S.

Table 1-XX.--[Non-Aircraft Specific MOS] Community System Skill Area Applicability Matrix (Example)

[MAINTENANCE ADMINISTRATION] [T/M/S #1] MAINTENANCE SYSTEM SKILL AREAS	Work Unit Code	System Abbrv	6046		6049	
			V	T	V	T
General Administration and Security Duties	XXX	GASD	X	X		
Maintenance Administration Reports	XXX	MARP	X	X		
Aeronautical Logs, Records and Associated Forms	XXX	LGRC	X	X		
Engine Accounting Reporting Procedures	XXX	ENGA	X	X		
Aircraft Accounting Reporting Procedures	XXX	AFTA	X	X		
Close-Out Procedures	XXX	CORD	X	X		
Aircraft Inventory Records	XXX	AIRS	X	X		
MDR Monthly Reports	XXX	MDRM			X	X
MDR SCIR Reports	XXX	SCIR			X	X
Monthly NAVFLIRS	XXX	MNAV			X	X
MDR Daily Audit Report	XXX	MDAR			X	X
NAVFLIR Daily Audit Report	XXX	NDAR			X	X
Optimized NALCOMIS Reports	XXX	ONRP			X	X
[MAINTENANCE ADMINISTRATION] [T/M/S #2] MAINTENANCE SYSTEM SKILL AREAS	Work Unit Code	System Abbrv	6046		6049	
General Administration and Security Duties	XXX	GASD	X	X		
Maintenance Administration Reports	XXX	MARP	X	X		
Aeronautical Logs, Records and Associated Forms	XXX	LGRC	X	X		
Engine Accounting Reporting Procedures	XXX	ENGA	X	X		
Aircraft Accounting Reporting Procedures	XXX	AFTA	X	X		
Close-Out Procedures	XXX	CORD	X	X		
Aircraft Inventory Records	XXX	AIRS	X	X		
MDR Monthly Reports	XXX	MDRM			X	X
MDR SCIR Reports	XXX	SCIR			X	X
Monthly NAVFLIRS	XXX	MNAV			X	X
MDR Daily Audit Report	XXX	MDAR			X	X
NAVFLIR Daily Audit Report	XXX	NDAR			X	X
Optimized NALCOMIS Reports	XXX	ONRP			X	X

V=Combat Deployable Sqdn T=Trainer Sqdn

NOTE: "XXX" is entered for those skill areas that do not have a work unit code.

d. System Skill Proficiency CMMR Matrix:

(1) System Skill Proficiency (SSP) refers to the successful completion of all SME-determined Subsystem Skill (OJT and/or NAMP) Tasks (2000-4000) within a given aircraft System. Squadron, squadron minus, and detachment requirements shall be placed in the subsequent matrix table (Table 1-XX) and used to assist units in meeting training requirements.

Example:

"1.5. [(T/M/S) or (Non-aircraft Specific MOS)] COMMUNITY SYSTEM SKILL PROFICIENCY (SSP) CORE MODEL MINIMUM REQUIREMENT (CMMR). Maintenance Department training readiness requires SME-determined numbers of System Skill Proficient Marines in order to sustain unit operations. Table 1-XX provides the squadron, squadron minus, and detachment (or the like) SSP CMMR for the community."

Table 1-XX.--[T/M/S] Community  
System Skill Proficiency CMMR Matrix (Example)

[AV-8B/TAV-8B] SYSTEM SKILL PROFICIENCY	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Inspections (INSP)	#	#	#	#	#	#	#	#	#	#	#	#
Airframe (AIRF)	#	#	#	#	#	#	#	#	#	#	#	#
Crew Station (CREW)	#	#	#	#	#	#	#	#	#	#	#	#
Alighting/Launching System (LAUN)	#	#	#	#	#	#	#	#	#	#	#	#
Dir Flight Cntrl/Lift/Drag Sys (FLTC)	#	#	#	#	#	#	#	#	#	#	#	#
Escape Systems (ESCP)	#	#	#	#	#	#	#	#	#	#	#	#
[AV-8B/TAV-8B] SYSTEM SKILL PROFICIENCY	SQUADRON MINUS											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Inspections (INSP)	#	#	#	#	#	#	#	#	#	#	#	#
Airframe (AIRF)	#	#	#	#	#	#	#	#	#	#	#	#
Crew Station (CREW)	#	#	#	#	#	#	#	#	#	#	#	#
Alighting/Launching System (LAUN)	#	#	#	#	#	#	#	#	#	#	#	#
Dir Flight Cntrl/Lift/Drag Sys (FLTC)	#	#	#	#	#	#	#	#	#	#	#	#
Escape Systems (ESCP)	#	#	#	#	#	#	#	#	#	#	#	#
[AV-8B/TAV-8B] SYSTEM SKILL PROFICIENCY	SQUADRON DETACHMENT											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
Sched/Unsched Inspections (INSP)	#	#	#	#	#	#	#	#	#	#	#	#
Airframe (AIRF)	#	#	#	#	#	#	#	#	#	#	#	#
Crew Station (CREW)	#	#	#	#	#	#	#	#	#	#	#	#
Alighting/Launching System (LAUN)	#	#	#	#	#	#	#	#	#	#	#	#
Dir Flight Cntrl/Lift/Drag Sys (FLTC)	#	#	#	#	#	#	#	#	#	#	#	#
Escape Systems (ESCP)	#	#	#	#	#	#	#	#	#	#	#	#

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Table 1-XX.--[Non-Aircraft Specific MOS] Community System Skill Proficiency CMMR Matrix (Example)

[MAINTENANCE ADMINISTRATION] SYSTEM SKILL PROFICIENCY	[T/M/S #1]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6046		6049		6046		6049		6046		6049	
	V	T	V	T	V	T	V	T	V	T	V	T
General Administration and Security Duties	#	#	#	#	#	#	#	#	#	#	#	#
Maintenance Administration Reports	#	#	#	#	#	#	#	#	#	#	#	#
Aeronautical Logs, Records and Associated Forms	#	#	#	#	#	#	#	#	#	#	#	#
Engine Accounting Reporting Procedures	#	#	#	#	#	#	#	#	#	#	#	#
Aircraft Accounting Reporting Procedures	#	#	#	#	#	#	#	#	#	#	#	#
Close-Out Procedures	#	#	#	#	#	#	#	#	#	#	#	#
[MAINTENANCE ADMINISTRATION] SYSTEM SKILL PROFICIENCY	[T/M/S #2]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6046		6049		6046		6049		6046		6049	
	V	T	V	T	V	T	V	T	V	T	V	T
General Administration and Security Duties	#	#	#	#	#	#	#	#	#	#	#	#
Maintenance Administration Reports	#	#	#	#	#	#	#	#	#	#	#	#
Aeronautical Logs, Records and Associated Forms	#	#	#	#	#	#	#	#	#	#	#	#
Engine Accounting Reporting Procedures	#	#	#	#	#	#	#	#	#	#	#	#
Aircraft Accounting Reporting Procedures	#	#	#	#	#	#	#	#	#	#	#	#
Close-Out Procedures	#	#	#	#	#	#	#	#	#	#	#	#
[MAINTENANCE ADMINISTRATION] SYSTEM SKILL PROFICIENCY	[T/M/S #3]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6046		6049		6046		6049		6046		6049	
	V	T	V	T	V	T	V	T	V	T	V	T
General Administration and Security Duties	#	#	#	#	#	#	#	#	#	#	#	#
Maintenance Administration Reports	#	#	#	#	#	#	#	#	#	#	#	#
Aeronautical Logs, Records and Associated Forms	#	#	#	#	#	#	#	#	#	#	#	#
Engine Accounting Reporting Procedures	#	#	#	#	#	#	#	#	#	#	#	#
Aircraft Accounting Reporting Procedures	#	#	#	#	#	#	#	#	#	#	#	#
Close-Out Procedures	#	#	#	#	#	#	#	#	#	#	#	#

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e. Maintenance Leadership Qualifications/Designations (QDs):

(1) Although all Maintenance Qualifications and Designations requirements are critical to the successful accomplishment of aircraft maintenance, certain QDs have become special interest items due to their impact on the capability of a unit to perform to its capacity. These QDs are reported up the chain of command in accordance with Chapter 3 of this manual. Units that provide standardized detachments, teams, or a variant thereof, shall list appropriate CMMR values to sustain 24-hour operations in addition to the total unit CMMR. The table and paragraph below are examples of those Maintenance Leadership-specific QDs that are reportable throughout the chain of command and shall be inserted into Chapter 1 of the community T&R.

Example:

"1.6. [(T/M/S) or (Non-Aircraft Specific MOS)] COMMUNITY MAINTENANCE LEADERSHIP CORE MODEL MINIMUM REQUIREMENT (CMMR). Maintenance Department training readiness requires the following SME-determined numbers of Maintenance Leaders to sustain unit operations. Table 1-XX provides the squadron, squadron minus, and detachment (or the like) Maintenance Leadership CMMR for the community."

Table 1-XX.--[T/M/S] Community Maintenance Leadership CMMR (Example)

[AV-8B/TAV-8B] MAINTENANCE LEADERSHIP	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
QUALITY ASSURANCE REPRESENTATIVE (QAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY QAR (CDQAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY INSPECTOR (CDI)	#	#	#	#	#	#	#	#	#	#	#	#
QUALITY ASSURANCE SAFETY OBSERVER (QASO)	#	#	#	#	#	#	#	#	#	#	#	#
SAFE FOR FLIGHT	#	#	#	#	#	#	#	#	#	#	#	#
PLANE CAPTAIN	#	#	#	#	#	#	#	#	#	#	#	#
HIGH POWER	#	#	#	#	#	#	#	#	#	#	#	#
LOW POWER	#	#	#	#	#	#	#	#	#	#	#	#

[AV-8B/TAV-8B] MAINTENANCE LEADERSHIP	SQUADRON MINUS											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
QUALITY ASSURANCE REPRESENTATIVE (QAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY QAR (CDQAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY INSPECTOR (CDI)	#	#	#	#	#	#	#	#	#	#	#	#
QUALITY ASSURANCE SAFETY OBSERVER (QASO)	#	#	#	#	#	#	#	#	#	#	#	#
SAFE FOR FLIGHT	#	#	#	#	#	#	#	#	#	#	#	#
PLANE CAPTAIN	#	#	#	#	#	#	#	#	#	#	#	#
HIGH POWER	#	#	#	#	#	#	#	#	#	#	#	#
LOW POWER	#	#	#	#	#	#	#	#	#	#	#	#

[AV-8B/TAV-8B] MAINTENANCE LEADERSHIP	SQUADRON DETACHMENT											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
QUALITY ASSURANCE REPRESENTATIVE (QAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY QAR (CDQAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY INSPECTOR (CDI)	#	#	#	#	#	#	#	#	#	#	#	#
QUALITY ASSURANCE SAFETY OBSERVER (QASO)	#	#	#	#	#	#	#	#	#	#	#	#
SAFE FOR FLIGHT	#	#	#	#	#	#	#	#	#	#	#	#
PLANE CAPTAIN	#	#	#	#	#	#	#	#	#	#	#	#
HIGH POWER	#	#	#	#	#	#	#	#	#	#	#	#
LOW POWER	#	#	#	#	#	#	#	#	#	#	#	#

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Table 1-XX.--[Non-Aircraft Specific MOS] Community  
Maintenance Leadership CMMR (Example)

[SUPPORT EQUIPMENT] MAINTENANCE LEADERSHIP	[T/M/S #1]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6072		6073		6072		6073		6072		6073	
	V	T	V	T	V	T	V	T	V	T	V	T
QUALITY ASSURANCE REPRESENTATIVE (QAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY QAR (CDQAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY INSPECTOR (CDI)	#	#	#	#	#	#	#	#	#	#	#	#
PLANE CAPTAIN	#	#	#	#	#	#	#	#	#	#	#	#
[SUPPORT EQUIPMENT] MAINTENANCE LEADERSHIP	[T/M/S #2]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6072		6073		6072		6073		6072		6073	
	V	T	V	T	V	T	V	T	V	T	V	T
QUALITY ASSURANCE REPRESENTATIVE (QAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY QAR (CDQAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY INSPECTOR (CDI)	#	#	#	#	#	#	#	#	#	#	#	#
PLANE CAPTAIN	#	#	#	#	#	#	#	#	#	#	#	#
[SUPPORT EQUIPMENT] MAINTENANCE LEADERSHIP	[T/M/S #3]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6072		6073		6072		6073		6072		6073	
	V	T	V	T	V	T	V	T	V	T	V	T
QUALITY ASSURANCE REPRESENTATIVE (QAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY QAR (CDQAR)	#	#	#	#	#	#	#	#	#	#	#	#
COLLATERAL DUTY INSPECTOR (CDI)	#	#	#	#	#	#	#	#	#	#	#	#
PLANE CAPTAIN	#	#	#	#	#	#	#	#	#	#	#	#

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f. Support Equipment Licensing Requirement. Each unit must build and maintain enough SE licensed individuals capable of providing the commander the knowledge and skills required to handle and properly utilize support equipment appropriate to the maintenance requirement. The CMMR for SE Licensing is defined in minimum numbers of licensed individuals required to meet the commander's training and war time requirements. Units that provide standardized detachments, teams, or a variant thereof shall list appropriate CMMR values for each to sustain 24-hour operations in addition to the total unit CMMR. An SE Licensing Core Competency paragraph and table shall be included in Chapter 1 of each community T&R similar to the below example.

"1.7. [(T/M/S) or (Non-Aircraft Specific MOS)] COMMUNITY SUPPORT EQUIPMENT LICENSING CMMR. Support Equipment Licensing plays an important role in the Maintenance Department and has a direct impact on department core competency. Table 1-XX delineates the [(T/M/S) or (Non-Aircraft Specific MOS)] community minimum requirements for SE Licensing."

Table 1-XX.--[T/M/S] Community

Support Equipment Licensing CMMR (Example)

[AV-8B/TAV-8B] SE LICENSING	SQUADRON											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	#	#	#	#	#	#	#	#	#	#	#	#
DEMINERALIZATION CART	#	#	#	#	#	#	#	#	#	#	#	#
COBRA CRANE (4-TON)	#	#	#	#	#	#	#	#	#	#	#	#
OXY SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
NITRO SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
HYD POWER SUPPLY	#	#	#	#	#	#	#	#	#	#	#	#
HYD SERVICING UNIT	#	#	#	#	#	#	#	#	#	#	#	#
AIR CONDITIONER	#	#	#	#	#	#	#	#	#	#	#	#

[AV-8B/TAV-8B] SE LICENSING	SQUADRON MINUS											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	#	#	#	#	#	#	#	#	#	#	#	#
DEMINERALIZATION CART	#	#	#	#	#	#	#	#	#	#	#	#
COBRA CRANE (4-TON)	#	#	#	#	#	#	#	#	#	#	#	#
OXY SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
NITRO SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
HYD POWER SUPPLY	#	#	#	#	#	#	#	#	#	#	#	#
HYD SERVICING UNIT	#	#	#	#	#	#	#	#	#	#	#	#
AIR CONDITIONER	#	#	#	#	#	#	#	#	#	#	#	#

[AV-8B/TAV-8B] SE LICENSING	SQUADRON DETACHMENT											
	PL		AF				AVI				ORD	
	6212		6252		6282		6312		6332		6531	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	#	#	#	#	#	#	#	#	#	#	#	#
DEMINERALIZATION CART	#	#	#	#	#	#	#	#	#	#	#	#
COBRA CRANE (4-TON)	#	#	#	#	#	#	#	#	#	#	#	#
OXY SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
NITRO SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
HYD POWER SUPPLY	#	#	#	#	#	#	#	#	#	#	#	#
HYD SERVICING UNIT	#	#	#	#	#	#	#	#	#	#	#	#
AIR CONDITIONER	#	#	#	#	#	#	#	#	#	#	#	#

V=Combat Deployable Sqdn      T=Trainer Sqdn

Table 1-XX.--[Non-Aircraft Specific MOS] Community  
Support Equipment Licensing CMMR (Example)

[SUPPORT EQUIPMENT] SUPPORT EQUIPMENT LICENSING	[T/M/S #1]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6072		6073		6072		6073		6072		6073	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	#	#	#	#	#	#	#	#	#	#	#	#
DEMINERALIZATION CART	#	#	#	#	#	#	#	#	#	#	#	#
COBRA CRANE (4-TON)	#	#	#	#	#	#	#	#	#	#	#	#
OXY SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
NITRO SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
HYD POWER SUPPLY	#	#	#	#	#	#	#	#	#	#	#	#
HYD SERVICING UNIT	#	#	#	#	#	#	#	#	#	#	#	#
AIR CONDITIONER	#	#	#	#	#	#	#	#	#	#	#	#

[SUPPORT EQUIPMENT] SUPPORT EQUIPMENT LICENSING	[T/M/S #2]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6072		6073		6072		6073		6072		6073	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	#	#	#	#	#	#	#	#	#	#	#	#
DEMINERALIZATION CART	#	#	#	#	#	#	#	#	#	#	#	#
COBRA CRANE (4-TON)	#	#	#	#	#	#	#	#	#	#	#	#
OXY SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
NITRO SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
HYD POWER SUPPLY	#	#	#	#	#	#	#	#	#	#	#	#
HYD SERVICING UNIT	#	#	#	#	#	#	#	#	#	#	#	#
AIR CONDITIONER	#	#	#	#	#	#	#	#	#	#	#	#

[SUPPORT EQUIPMENT] SUPPORT EQUIPMENT LICENSING	[T/M/S #3]											
	SQUADRON				SQUADRON MINUS				SQUADRON DETACHMENT			
	6072		6073		6072		6073		6072		6073	
	V	T	V	T	V	T	V	T	V	T	V	T
PORTABLE NITRO CYLINDER	#	#	#	#	#	#	#	#	#	#	#	#
DEMINERALIZATION CART	#	#	#	#	#	#	#	#	#	#	#	#
COBRA CRANE (4-TON)	#	#	#	#	#	#	#	#	#	#	#	#
OXY SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
NITRO SERVICING CART	#	#	#	#	#	#	#	#	#	#	#	#
HYD POWER SUPPLY	#	#	#	#	#	#	#	#	#	#	#	#
HYD SERVICING UNIT	#	#	#	#	#	#	#	#	#	#	#	#
AIR CONDITIONER	#	#	#	#	#	#	#	#	#	#	#	#

V=Combat Deployable Sqdn      T=Trainer Sqdn

5.4. FORMAT FOR ADDITIONAL MOS CHAPTERS:

5.4.1. The T&R syllabus format shall be delineated in the following sequence (Figure 5-03) for all chapters, excluding Chapter 1. See Figure 5-01 listed under paragraph 5.2.2, for specific Section and Paragraph numbering guidelines.

2.1.	PURPOSE
2.2.	OJT SYSTEM/SUBSYSTEM/TASK OVERVIEW TABLE 2-01 MOS [6XXX] OJT SYSTEMS/SUBSYSTEMS/TASKS OVERVIEW
2.X.	SYSTEM IDENTIFICATION
2.X.1.	Subsystem Identification Table 2-XX Single-System/Subsystem/Task Breakdown Table
2.X.2.	1000-LEVEL - SYSTEM SKILL INTRODUCTION
2.X.3.	2000-LEVEL - SYSTEM SKILL BASIC
2.X.4.	3000-LEVEL - SYSTEM SKILL INTERMEDIATE
2.X.5.	4000-LEVEL - SYSTEM SKILL ADVANCED
2.X.6.	5000-LEVEL - MANAGEMENT SKILLS
2.X.7.	6000-LEVEL - QUALIFICATIONS, DESIGNATIONS, AND LICENSING
2.X.8.	7000-LEVEL - SUPPLEMENTAL
2.X.	NAMP PURPOSE
2.X.	NAMP SYSTEM/SUBSYSTEM/TASK OVERVIEW TABLE 2-XX NAMP PROGRAM MOS APPLICABILITY MATRIX TABLE 2-XX MOS [6XXX] NAMP PERFORMANCE LEVEL/TASK BREAKDOWN
2.X.	NAMP PROGRAM IDENTIFICATION TABLE 2-XX Subsystem/Task Overview
2.X.1.	1000-LEVEL - NAMP INDOCTRINATION
2.X.2.	2000-LEVEL - NAMP BASIC
2.X.3.	3000-LEVEL - NAMP INTERMEDIATE
2.X.4.	4000-LEVEL - NAMP ADVANCED
2.X.5.	5000-LEVEL - MANAGEMENT SKILLS
2.X.6.	6000-LEVEL - QUALIFICATIONS, DESIGNATIONS AND LICENSING
2.X.7.	7000-LEVEL - SUPPLEMENTAL

\*The "X" acts as a placeholder for future section numbers, starting with the next sequential number, and will vary from program-to-program

Figure 5-03.--Syllabus Format (Subsequent Chapters)

5.4.2. Titles For Additional T&R Chapter. T&R Chapters 2 and beyond shall be titled [T/M/S] (if applicable), [Plain Language MOS Title] and [(MOS number designator)], followed by "Training and Readiness Requirements," as shown in the following example:

Example:

"CHAPTER 2  
AV-8B AIRFRAMES MECHANIC (6212)  
TRAINING AND READINESS REQUIREMENTS"

5.4.3. Required Paragraphs. Chapter 2 and all subsequent chapters shall include a purpose statement as shown below:

Example:

"2.1. PURPOSE. To provide MOS [6XXX] personnel with the skills and knowledge required to be a proficient [Plain Language MOS Title]."

5.4.4. Performance Levels.

a. As SMEs develop Tasks to guide the training of Marines, they must consider appropriate expectations at each performance level. Table 5-03 describes each level.

Table 5-03.--Performance Levels for OJT Tasks

PERFORMANCE LEVEL	OJT	LEVEL DESCRIPTION
1000	Introduction	Documents all the training tasks an individual is instructed on or exposed to at the "A" and "C" school including On-the-Job Training (OJT), and Military Occupational Specialty (MOS) required Support Equipment (SE) classes ("C" school only).
2000	Basic	Provides an individual with the fundamental knowledge and skill to perform simple tasks that are key to maintaining MOS specific aircraft systems and subsystems.
3000	Intermediate	Provides an individual with the knowledge and skill to perform step-by-step or multipart tasks within each maintenance system/subsystem
4000	Advanced	Provides an individual with advanced knowledge and skills to perform complex maintenance tasks on systems/subsystems such as testing and troubleshooting or to effectively perform as a Work-center Supervisor.
5000	Management	Provides an individual with the essential management skills required to perform the duties of Quality Assurance Representative or Maintenance Controller.
6000	QDLs	Provides a means for detailing specific Task requirements for each Qualification, Designation, and License. A sign-off in this level indicates that an individual has completed the certification process and has been granted a Qualification Designation, or License by the MO or CO and is authorized to function in the capacity indicated.
7000	Supplemental	Tracks all maintenance tasks or work-center duties that are not performed on a regular basis. Supplemental maintenance tasks are performed on an irregular interval and are not required to become a CDI/CDQAR/QAR. Documentation shall be annotated in the TMS to show individual completion/proficiency for future performance of irregular tasks.

b. MOS-Level System/Subsystem/Task Table. A paragraph and table shall be inserted into the T&R to provide a description and picture of MOS-Level Systems, Subsystems, and Tasks for the specific MOS, sorted by system-level WUC. See Example paragraph and table below.

Example:

"2.2. MOS [6XXX] OJT SYSTEMS/SUBSYSTEMS/TASK OVERVIEW. Table 2-01 provides an overview of the Systems and Subsystems to be addressed in the [MOS ####/Plain Language MOS Title] T&R."

Table 2-01.--MOS [6XXX] OJT Systems/Subsystems/Tasks Overview (Example)

WUC/UNS Identifier			03000	11000	13000	14000	24000	29000
SYSTEM NAME (SYSTEM ABBREV)			INSPECTION SYSTEM (INPS)	AIRFRAMES (AIRF)	LANDING GEAR (LNDG)	FLIGHT CONTROLS (FLTC)	AUX POWER (AUXP)	POWER PLANTS INSTALLATION (PWRP)
SUBSYSTEM NAME (WUC/UNS)	SUBSYSTEM NAME (WUC/UNS)	SUBSYSTEM NAME (WUC/UNS)	INSPECTION 030	NOSE CONE 11110	MAIN LAND GEAR 13110	LAT FLT CTRL 14110	AUX PWR 24140	PWR PLANT CNTRLS 29720
2850-2851 3850-3853 7850-7914	2950 3950 7950 7951	2830-2835 3830-3832 4830-4832	2920-2923 3920-3925 7920-7922	7000-7004	2120-2123 3120-3125 4120-4122 7120-7122	2150-2153 3150-3157 4150-4157 5150 7150-7174	2570-2578 3570-3572 7570-7593	2370-2376 3370-3371 7370-7397
32000		41000		42000			44000	
HYDRAULIC PROPELLER (HYDP)		ENVIRONMENTAL PNEUMATIC CONTROL		ELECTRICAL POWER DISTRIBUTION (ELEC)			LIGHTING SYSTEMS (LTNG)	
SPINNER HUB 32110	AIR CONDITIONING 41110	BLEED AIR CONTROL 41450	PRIMARY A/C POWER 42110	SECONDARY A/C POWER 42510	DIRECT CURRENT POWER 42910	INTERIOR LIGHTING 44510	EXTERIOR LIGHTING 44910	
7000-7013	2431-2438	2400-2405 3400 7400-7424	2000-2013 3000-3014 4000-4005	2030-2033 7030-7033	2060-2075 7060-7080	2632-2638	2630-2645 7630-7698	

5.4.5. System Identification. Insert a plain language definition for the System.

Example:

"2.X. LANDING GEAR SYSTEM (LNDG). The Landing Gear System includes the complex grouping of several subsystems, which through precise timing and functions, are able to extend and retract the landing gear on the aircraft."

5.4.6. Subsystem Identification. Insert a plain language definition for the Subsystem.

Example:

"2.X.1. Landing Gear Control Subsystem. The Landing Gear Control Subsystem provides the necessary inputs to extend and retract the landing gear".

5.4.7. Task Structure. Each subsystem consists of one or more tasks. The Task Structure has been standardized and guidance provided below.

a. On-the-Job Training (OJT) Tasks.

(1) OJT Tasks. OJT Tasks shall be included in the T&R. OJT shall be categorized by System, Subsystem, Task and Performance Level and follow the format contained herein.

(2) Systems/Subsystems/Tasks. The T&R structure is based on the relationship between Systems, Subsystems, and Tasks. The syllabus format requires SMEs to provide a general description of the System and the Subsystem prior to delineating individual task requirements. The definitions of System, Subsystem, and Task are listed.

(a) System. An organized set of interacting, interrelated or interdependent mechanical or electrical components forming a complex whole. For instance, an aircraft Hydraulic System may be composed of several Subsystems (components).

(b) Subsystem. Secondary or subordinate portion of a system that is required for an individual to obtain knowledge, skill, and proficiency within a particular system. A subsystem may be broken down into tasks.

(c) Task. A specific action required for an individual to perform in order to obtain knowledge, skill, and proficiency on a particular subsystem.

b. The Task Structure is comprised of 19 main elements. The numbers followed by slash marks (#/) identify each element and are defined below in Figure 5-04. For examples of the full Task Structure format, see Figures 5-05 and 5-06.

Figure 5-04.--Task Structure Breakdown

1/ LDGR-2621-57A17	2/ AYLF	3/ AYLF	4/ R	5/ 10	6/ 180	7/ B,T	8/ E	9/ A	10/ P	11/ X2
		12/	Task							
		13/	Requirement							
		14/	Performance Standard							
		15/	NOTE							
		16/	Prerequisites							
		17/	External Syllabus Support							
		18/	Academics							
		19/	T&R Task Sign-Off Authority							

1/Training Task Code. The Training Task Code is comprised of a four-letter System abbreviation and a four-digit numeric identifier. The first digit of a numeric identifier shall begin with the appropriate Performance Level number (i.e. Systems Skill Introduction = 1XXX; Systems Skill Basic tasks = 2XXX; etc).

2/Work Unit Code (WUC)/Unified Numbering System (UNS). A multi-digit code corresponding to the System, Subsystem, and Component upon which maintenance is being accomplished (not required NAMP Tasks). WUC/UNS of "000000" shall be used for Tasks that inherently do not have a WUC/UNS attached (i.e. daily inspections, turn-around inspections, etc) and will be easily identified because they do not require a Maintenance Action Form (MAF). The purpose is to enable the WUC/UNS, recorded in NALCOMIS, to assist in auto-populating the approved TMS with training data.

3/Type Equipment Code (TEC). A code used to identify the complete end item or category of equipment on which work is being performed (i.e. AYLFF=AV-8B, AYLGG=TAV-8B, All Series=AYLFF/AYLGG, etc.). The purpose is to link tasks to specific types of equipment. For those tasks that apply to all like aircraft or equipment, "All Series" shall be annotated.

4/Individual Action Code (IAC). The IAC, in conjunction with the WUC/UNS, will assist in automatically recording OJT in the approved TMS. The WUC/IAC is required in order to use NALCOMIS MAF data to update the maintenance training information.

5/Duration. Shall be used for all NAMP Tasks and may be used for OJT Tasks. Duration shall be recorded in minutes estimated to complete the Task. For those tasks that do not require a Duration, "N/A" shall be listed.

6/Re-demonstrate Interval. Re-demonstrate Interval applies primarily to NAMP training tasks that require an individual to perform the tasks within a set time-frame to retain task proficiency. Re-demonstrate intervals shall be expressed in terms of days (i.e. 90, 180, etc) and an "N/A" for those tasks that do not require re-demonstration.

7/Program of Instruction (POI). Identifies the POI(s) for each given Task. More than one POI may apply and shall be listed and separated by a comma (,). The letter-designators are as follows:

B = Basic  
T = Transition  
C = Conversion  
R = Refresher  
L = Locality

8/Evaluated Task. An evaluated task requires an examination (written and/or oral) and the recording of the results into the TMS. Generally, final Subsystem Tasks (4000 level) will be evaluated. Additionally, there shall be an evaluated Task as part of the System Skill Proficiency certification process. Evaluated Tasks may be written, oral, practical, or a combination thereof. Evaluated Tasks shall be expressed by annotating an "E" to denote the requirement or an "N/A" for those tasks that do not require evaluation.

9/Device Type. List the primary means in which to train the task. The Device Type is identified by either a one-, two-, or three-letter designation, as follows:

A = Aircraft  
C = Classroom  
P = Part Task Trainer  
S = Simulator  
SE = Support Equipment  
IMI = Interactive Multimedia Instruction  
N/A = Not Applicable

10/Device Option. List the secondary means in which to train the task. The Device Option is identified by either a one-, two-, or three-letter designation (see Device Type list above). Some Tasks may not be able to be trained with a Device Option, in this case the Device Option shall be "N/A".

11/Repetitions. A SME-determined amount of times a Task must be repeated and accomplished successfully, in order to receive proficiency for the Task. Repetitions shall be expressed with an "X" followed by a number (i.e. X1=one time, X2=twice, etc.).

12/Task. A Task statement should be prepared in a standardized format to ensure the individual understands the context from which he/she is to perform the task(s). The Task shall be brief and consist of an action verb and an object. Some considerations when developing a Task is that a Task shall:

- (a) Have a definite beginning and ending

- (b) Involves personnel interacting with other personnel and/or equipment
- (c) Is directly observable or otherwise demonstrated
- (d) Results in a meaningful end or product
- (e) Includes a combination of physical and/or mental activities required of an individual, and;
- (f) May be of any size or degree of complexity

For example:

<u>" Remove Main Rotor Damper "</u>	
Action	Object
Verb	

**NOTE**

Reference for task structure is the MIL-HDBK-29612-2, Department of Defense Handbook, Instructional Systems Development/Systems Approach to Training and Education).

13/Requirement. Optional Entry. Requirement shall be used when SMEs determine that the Task and Performance Standard, by themselves, are not sufficient to describe the intended result of the Task. A Requirement statement may be used at any performance level.

14/Performance Standard. The performance standard will be based on the Task and Requirement (if any) statements. Performance standards must be specific, demonstrated, achievable, and potentially time-constrained or repeatable. All tasks shall be performed in accordance with the applicable publications, Maintenance Instruction manuals, technical manuals, Technical Directive Instructions and local command procedures (where applicable). Performance Standards shall include, at a minimum, whether the Task will be accomplished either with supervision, with assistance, or without supervision as defined below:

(a) *With Supervision* - A task performed with the aid of an individual who has previously completed the same subsystem task, without regards to rank. Supervision is defined as guiding, introducing, demonstrating, or discussing related topics in order to aid in the completion of the task. The supervision on a particular task does not equate to sign-off authority. *With Supervision* is generally a 2000- and 3000-levels.

(b) *With Assistance* - A task requiring more than one individual, but not necessarily requiring an associated or particular skill set (i.e., when communication checks are performed between aircrafts). The assistance provided by the second and subsequent maintainers is only related to requirements of the Task and those maintainers will not be required to show proficiency.

(c) *Without Supervision* - A Task performed without physical or verbal aid of any type. Aid is defined as facilitating the completion of the task or guiding the maintainer in any manner (i.e. pointing out or highlighting any discrepancies other than those related to safety). Performing tasks Without Supervision will not begin until the 4000-level. At the 4000-level it is expected that maintainers will require non-intrusive supervision (without physical or verbal aid of any kind) in order to monitor their ability to instruct.

Example: "Performance Standard. With Supervision-Perform a functional check of the Landing Gear Control Subsystem."

15/NOTE (optional). Notes may be inserted at the discretion of the SMEs to address those items requiring further clarity or to reinforce specific safety concerns. The word "NOTE" shall be centered in all caps and bolded. The "NOTE" title and statement shall be indented ½-inch and blocked on all sides (by use of the Justify tool). Notes are not required and shall only be listed when applicable.

16/Prerequisites. Prerequisites may be other Tasks, Subsystem Skill Proficiency, System Skill Proficiency, Performance Level Complete, etc., that must be accomplished prior to commencing another Task. List any other Tasks, by Subsystem abbreviation and training code within the MOS-specific chapter of the T&R that must be completed prior to beginning the Task identified. Some Tasks may not have prerequisites; in this case the Prerequisite would be "N/A".

17/External Syllabus Support. List any external support required to complete the Task (i.e. Part Task Trainers, Simulators, etc.).

18/Academics. List academics that are either required for sign-off of the Task and/or support the accomplishment of the Task. Any required academics must be delineated as "Required for Sign-off," otherwise they will be considered as supplemental to the task and not required for sign-off. Academics are divided into four sections:

(a) References - List main directives and documents/technical publications that specify or support the Task.

(b) Lectures - List required lectures, technical training, etc., that support the Task.

(c) Interactive Multimedia Instruction (IMIs) - List required IMIs that support the Task by Title/Identifier.

(d) Exams - List any exams required for the Task by Title/Identifier.

19/T&R Task Sign-off Authority. List the billet title/designation of the person(s) that hold the appropriate Sign-Off Authority. Sign-Off Authority is defined as a billet/designation that holds a minimum level of expertise and/or proficiency in the Task to satisfactorily evaluate the performance of an individual when accomplishing the Task. Multiple billets/designations may hold the minimum requirement to act as the Sign-Off Authority and all shall be listed in this section.

b. Task Examples. Figure 5-05 provides a structure formatting example and Figure 5-06 provides an example of any 1000-7000 Level OJT Maintenance Task.

ABCD-####-WUC	TEC	[IAC]	20	360	B,T	E	A	N/A	X2
<u>Task.</u> [Mandatory]									
<u>Requirement.</u> [Optional]									
<u>Performance Standard.</u> [Mandatory]									
<b>NOTE</b> [Insert notes as required]									
<u>Prerequisites.</u> [If applicable]									
<u>External Syllabus Support.</u> [If applicable]									
<u>Academics:</u>									
<u>References.</u> [List Main Directive(s)]									
<u>Lectures.</u> [Lecture Title]									
<u>IMIs.</u> [IMI Title/Identifier]									
<u>Exams.</u> [Exam Title/Identifier]									
<u>T&amp;R Task Sign-Off Authority.</u> [List all applicable]									

Figure 5-05.--Task Structure Formatting Example

LDGR-3120-13000	AYLF	E	N/A	720	B,T,C,R	E	A	P	X3
<u>Task.</u> Perform a functional check of the Landing Gear Control System.									
<u>Requirement.</u> Identify and describe the function of the Landing Gear Control System's subsystem components with the use of schematics.									
<u>Performance Standard.</u> Perform a functional check of the Landing Gear Control System with supervision and IAW applicable publications.									
<b>NOTE</b> Due to the complexity and potential dangers of the Landing Gear Control System, it is imperative to understand the individual components and the theory of operation of the Landing Gear Control System prior to performing this functional check.									
<u>Prerequisites.</u> <TBD>									
<u>External Syllabus Support.</u> <TBD>									
<u>Academics:</u>									
<u>References.</u> <TBD>									
<u>Lectures.</u> <TBD>									
<u>IMIs.</u> <TBD>									
<u>Exam.</u> <TBD>									
<u>T&amp;R Task Sign-Off Authority.</u> <TBD>									

Figure 5-06.--Task Example

5.4.9. Performance Levels Introductions. Each Performance Level shall be introduced with a "Purpose". Performance Level 1000, of the first System listed, starts at paragraph 2.3.2, with each subsequent performance level being numbered sequentially as shown in Figure 5-03. The first Task of the respective level is listed immediately after the Purpose statement, barring any requirements for a NOTE.

a. Purpose. Stipulates the general theories and/or ideas that will be addressed in the specific Subsystem level.

Example:

"2.4. 1000-LEVEL - SYSTEM SKILL INTRODUCTION ("A" & "C" School):

a. Purpose. Upon completion of the T&R tasks in the 1000-Level, Marines shall be familiar with common equipment, publications, and practices that will be encountered while performing maintenance."

5.5. NAMPSOP AND NON-NAMPSOP PROGRAMS:

a. NAMPSOP and Non-NAMPSOP Tasks. The NAMPSOP and Non-NAMPSOP portion of the T&R also begins at the System Level. However, rather than an aircraft System, the entire NAMPSOP and Non-NAMPSOP Program is considered the System with each individual program (TDCP, FODP, etc.) as the Subsystems. (See example tables in section 5.5.1.)

b. MOS SMEs shall use the CG TECOM (ATB) generated baseline to create their MOS-specific NAMPSOP and Non-NAMPSOP requirements at each Performance Level. Specific NAMPSOP and Non-NAMPSOP tasks shall be placed in individual MOS T&Rs and shall be formatted in accordance with this chapter.

Table 5-04.--Performance Levels For NAMPSOP and Non-NAMPSOP Tasks

Performance Level	NAMP	LEVEL DESCRIPTION
1000	Indoctrination	Documents completion of required NAMPSOP and Non-NAMPSOP Indoctrination training.
2000	Basic	Individuals may be assigned as the "Alternate" representative for NAMP collateral duties.
3000	Intermediate	Individuals may be assigned as a "Primary" representative for NAMP collateral duties.
4000	Advanced	Provides an individual with advanced knowledge and skills to Assist the work-center supervisor with NAMPSOP and Non-NAMPSOP requirements for each applicable program.
5000	Management	Provides an individual with the essential management skills required to perform the duties of a Program Monitor/Manager/Coordinator.
6000	Accreditation	(Future Use)
7000	(Future Use)	(Future Use)

5.5.1. NAMP System/Subsystem/Task Overview. Similar to the OJT section headings, the NAMP section shall start with a Purpose and a complete System/Subsystem Overview paragraph and table. See example provided below.

Example:

"2.XX. PURPOSE. To provide [MOS 6###/Plain Language MOS Title] personnel with the skills and knowledge required to be proficient in the NAMP programs applicable to their duties."

"2.XX. [(T/M/S) or (Non-Aircraft Specific MOS)] NAVAL AVIATION MAINTENANCE PROGRAM (NAMP) PERFORMANCE LEVEL/TASKS OVERVIEW. Table 2-XX, "NAMP/Non-NAMPSOP Maintenance Programs & Processes Listing" provides a listing of all applicable NAMP programs and processes which will aid in the development of Table 2-XX, "NAMP Program MOS Applicability Matrix." The Applicability Matrix provides an overview of the NAMP and Non-NAMPSOP programs and processes that are applicable to either the aircraft specific MOS or non-aircraft specific MOS communities, and at which level they apply. The Applicability Matrix shall then be used to create Table 2-XX, "NAMP Performance Level and Task Breakdown" which identifies the specific NAMP Performance Levels and Tasks to be addressed in the NAMP portion of the T&R Manual."

5.5.2. NAMP Performance Level and Task Breakdown Table. Non-aircraft specific MOS communities may need to create multiple "NAMP Performance Level and Task Breakdown" tables to identify specific NAMP requirements for each T/M/S that the MOS supports, as listed in Table 2-XX, "NAMP Program MOS Applicability Matrix."

Table 2-XX.--NAMP/Non-NAMPSOP Maintenance Programs & Processes Listing (Example)

<b>Title</b>	<b>Abbrev</b>
AVIATORS BREATHING OXYGEN SURVEILLANCE PROGRAM	ABOP
CORROSION PREVENTION AND CONTROL PROGRAM	CPCP
EGRESS/EXPLOSIVE SYSTEM CHECKOUT PROGRAM	EESP
ELECTROMAGNETIC INTERFERENCE/ELECTROSTATIC DISCHARGE PROGRAM	ESDP
FOREIGN OBJECT DAMAGE PREVENTION PROGRAM	FODP
FUEL SURVEILLANCE PROGRAM	FSVP
HAZARDOUS MATERIAL CONTROL AND MANAGEMENT PROGRAM	HAZP
HYDRAULIC CONTAMINATION CONTROL PROGRAM	HYDP
MAINTENANCE IN-SERVICE TRAINING PROGRAM	MITP
NAVAL AVIATION METROLOGY AND CALIBRATION PROGRAM	NACP
NAVAL AVIATION MAINTENANCE DISCREPANCY REPORTING PROGRAM	NADP
NAVY OIL ANALYSIS PROGRAM	NOAP
OIL CONSUMPTION PROGRAM	OILP
PLANE CAPTAIN QUALIFICATION PROGRAM	PCQP
QUALITY ASSURANCE AUDIT PROGRAM	QAAP
SUPPORT EQUIPMENT OPERATOR TRAINING AND LICENSING PROGRAM	SELP
SUPPORT EQUIPMENT PLANNED MAINTENANCE SYSTEM PROGRAM	SEMP
TECHNICAL DIRECTIVE COMPLIANCE PROGRAM	TDCP
TOOL CONTROL PROGRAM	TLCP
TIRE AND WHEEL MAINTENANCE SAFETY PROGRAM	TWSP
AIRCRAFT COMPASS CALIBRATION PROGRAM	ACCP
AIRCRAFT CONFINED SPACE PROGRAM	ACSP
TAXI/TURNUP/AUXILIARY POWER UNIT LICENSING PROGRAM	ATTP
BATTERY SAFETY PROGRAM	BASP
CENTRAL TECHNICAL PUBLICATIONS LIBRARY PROGRAM	CTPL
EMERGENCY RECLAMATION PROGRAM	EMRP
INDIVIDUAL COMPONENT REPAIR LIST PROGRAM	ICRP
LAZARD HAZARD CONTROL PROGRAM	LHCP
MAINTENANCE DEPARTMENT SAFETY PROGRAM	MDSP
MINIATURE/MICRO-MINIATURE PROGRAM	MMMP
NONDESTRUCTIVE INSPECTION PROGRAM	NDIP
PHASE MAINTENANCE PROGRAM	PHMP
SUPPORT EQUIPMENT MISUSE AND ABUSE PROGRAM	SMAP
VIBRATION ANALYSIS PROGRAM	VIAP

Table 2-XX.-[T/M/S] NAMP Program MOS Applicability Matrix (Example)

NAMP PRGM	PL							AF							AVI																				
	6212							6252							6282							6312							6332						
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7	1	2	3	4	5	6	7
ABOP	X							X							X							X						X							
CPCP	X	X	X	X				X	X	X	X	X			X	X	X	X				X	X	X				X	X	X					
EESP	X							X	X						X	X	X	X	X			X	X					X	X						
ESDP	X							X	X						X	X	X				X	X	X	X	X			X	X	X	X	X			
FODP	X	X	X	X	X			X	X	X	X				X	X	X				X	X	X	X			X	X	X	X					
FSVP	X	X	X	X	X			X							X						X	X					X	X							
HAZP	X							X	X	X	X	X			X	X	X	X			X	X					X	X							
HYDP	X	X	X	X	X			X	X	X	X	X			X						X						X								
MITP	X							X	X	X	X				X	X	X	X			X						X								
NACP	X	X						X	X						X	X	X				X	X					X	X							
NADP	X							X							X	X	X	X			X	X	X				X	X	X						
NOAP	X	X	X	X				X							X						X						X								
OILP	X	X	X	X				X							X	X					X						X								
PCQP	X	X	X	X	X			X							X						X						X								
QAAP	X	X	X	X	X			X							X	X	X	X			X						X								
SELP	X	X	X	X	X			X	X	X	X				X	X	X	X			X	X	X				X	X	X						
SEMP	X							X	X	X	X				X	X	X				X						X								
TDCP	X	X	X	X	X			X	X	X	X				X	X	X	X			X	X	X				X	X	X						
TLCP	X	X	X	X	X			X	X	X	X				X	X	X	X			X	X	X	X			X	X	X	X	X				
TWSP	X	X	X	X				X	X	X	X	X			X						X						X								
ACCP	-							-							-						-					-									
ACSP								X	X	X																									
ATTP	-							-							-						-					-									
BASP								X							X	X	X	X																	
CTPL								X	X	X	X				X	X	X	X																	
EMRP																																			
ICRP																																			
LHCP																																			
MDSP															X	X	X	X																	
MMMP																																			
NDIP																																			
PHMP	-							-							-	X	X	X			-					-									
SMAP															X	X	X	X																	
VIAP	-							-							-						-					-									

Table 2-XX.--NAMP Performance Level and Task Breakdown (Example)

MOS (6XXX) NAMP AND NON-NAMP SOP PROGRAM/PERFORMANCE LEVEL/TASK OVERVIEW						
TDCP	FODP	[PRGM X]				
1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX
2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX
3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX
4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX
5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX
6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX
7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX
[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]
1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX
2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX
3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX
4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX
5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX
6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX
7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX
[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]
1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX
2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX
3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX
4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX
5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX
6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX
7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX
[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]	[PRGM X]
1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX	1000-1XXX
2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX	2000-2XXX
3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX	3000-3XXX
4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX	4000-4XXX
5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX	5000-5XXX
6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX	6000-6XXX
7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX	7000-7XXX

**APPENDIX A**  
**GLOSSARY OF TERMS**

**A**

**ACADEMICS** - Any training tools required for accomplishment of a task. (i.e. references, lectures, CBTs, or exams)

**ACCEPTANCE INSPECTION** - Inspections performed on aircraft, engines, or support equipment upon receiving custody from another unit.

**ACCEPTANCE INSPECTION DEFICIENCY REPORT** - Identifies and documents defects in newly manufactured, modified, or reworked aircraft, including aircraft that have completed Post Maintenance Inspection, to ensure better quality maintenance and rework procedures.

**ACTION TAKEN CODE (AT CODE)** - A one-character alphabetic or numeric code that describes what action has been accomplished on the item identified by a Work Unit Code (WUC).

**AERONAUTICAL EQUIPMENT SERVICE RECORD (AESR)** - An insert to the basic aircraft logbook used as a service record for various aircraft equipment, such as power plants and propellers.

**AIRCRAFT INTERMEDIATE MAINTENANCE DEPARTMENT/DETACHMENT (AIMD)** - The department of an aviation ship responsible for the check, test, repair, or manufacture of aeronautical components and SE for the supported aircraft.

**AIRCRAFT INVENTORY RECORD** - Record of all external equipment associated with one aircraft.

**AIRCRAFT LOGBOOK** - A detailed service record maintained for each individual aircraft.

**AIRCRAFT MAINTENANCE MATERIAL READINESS LIST PROGRAM (AMMRL)** - Provides data required for effective management of selected Support Equipment (SE) at all levels of aircraft maintenance.

**AIRCRAFT MATERIAL READINESS REPORT (AMRR)** - Daily report of the activity's readiness status of all aircraft.

**ANNOUNCEMENT MESSAGE** - Naval message sent to all respective units, Marine Air Groups (MAGs), wings, and Type Commanders (TYCOMs) to announce a preconference or conference.

**ARMAMENT/WEAPONS SUPPORT EQUIPMENT (AWSE)** - Any equipment used in the loading of an explosive system or launch device on an aircraft.

**ASSEMBLY SERVICE RECORD (ASR)** - A record of components that require service removal tracking that is part of a higher assembly.

**ASSISTANT MAINTENANCE OFFICER (AMO)** - Assistant to the Officer charged with the responsibilities of maintaining a maintenance department.

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AUDIT - As applied to Quality Assurance (QA), a periodic evaluation of detailed plans, policies, procedures, products, directives, and records. See MANAGEMENT AUDIT.

AUTHORIZED USE LIST (AUL) - Generally used to list all items of hazardous materials or all publications utilized within the work center and/or unit.

AVIATION INFORMATION SYSTEM DEPARTMENT (AISD) - See Aviation Logistics Information Management Support (ALIMS).

AVIATION LIFE SUPPORT SYSTEMS (ALSS) - Items of equipment and clothing needed to allow aircrew members and aircraft passengers to function within all parameters of the flight environment, safely egress from disabled aircraft and descend/ascend to the surface, and survive on land and water and to interface with rescue forces.

AVIATION LOGISTICS ELECTRONIC REQUIREMENTS TRAINING SYSTEM (ALERTS)  
An automated assessment tool to measure the core competency of an individual unit's maintenance department.

AVIATION LOGISTICS INFORMATION MANAGEMENT SUPPORT (ALIMS) - Provides aviation logistics information support to Marine Air Groups (MAG). This support includes information system operations, installations, and maintenance in garrison, shipboard, and forward deployed environments. Other responsibilities include network administration, design, and installation; along with maintaining and repairing data communication links, fiber-optic and tactical fiber-optic cabling. Formally known as Aviation Information Systems Department (AISD).

ADVANCED SKILLS MANAGEMENT (ASM) - Web-based application that improves the quality and efficiency of training at the schoolhouse and in the fleet by providing the capability to identify individual maintenance task requirements, performs real-time assessment, identify training deficiencies and provide immediate and focused access to training tools. Advanced Skills Management (ASM) program will be the Training Management System (TMS) for USMC Aircraft Maintenance Training.

AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM (AMTRP) - A plan that builds an effective unit-level maintenance training program and establishes policy for the development, execution, and standardization of all Marine aircraft maintenance Training and Readiness (T&R) manuals.

AVIONICS CHANGE (AVC) - A technical directive associated with a change to the avionics system(s) of an aircraft.

AWAITING MAINTENANCE REASON CODE (AWM CODE) - A one-character numeric code that describes the reason for an AWM condition.

AWAITING MAINTENANCE (AWM) TIME - Time when an aircraft is non-mission capable (maintenance) (NMCM) or partial mission capable (maintenance) (PMCM) and no maintenance is being performed on the systems causing the NMCM or PMCM status. Other maintenance upkeep not causing an NMCM or PMCM condition may be performed on the aircraft during this period.

AWAITING PARTS (AWP) - The condition that exists when materials required to complete a maintenance action are not available on

station/ship. AWP is that time when no work can be performed on the item being repaired due to a lack of ordered parts. Parts are not considered to be ordered until the demand has been forwarded to the Supply Response Section of the Supply Department. The time when AWP occurred and the length of time it lasted is recorded in the Maintenance/Supply Record Section. Items which cause AWP during on-equipment work are identified in the Removed/Old Item Section. Items which cause AWP during off-equipment work are identified in the Failed/Required Material Section (H-Z sections).

**B**

**BASELINE TROUBLE REPORT** - Provides a means to report NTCSS Optimized OMA NALCOMIS baseline deficiencies found in a specific PMA baseline.

**BASIC MISSION** - The basic intended function or capability of the aircraft, such as bomber, fighter, patrol, observation, and utility.

**BASIC (B)** - See PROGRAM OF INSTRUCTION (BASIC)

**BULLETIN** - A document issued by COMNAVAIRSYSCOM which directs a one-time inspection of equipment, contains related instructions, and disseminates administrative or management information as related to maintenance of weapon systems.

**C**

**CALIBRATE** - To determine, check, or rectify any graduation of a quantitative measuring device or Precision Measuring Equipment (PME).

**CALIBRATION** - The process by which calibration installations compare a calibration standard of Precision Measuring Equipment (PME) with a standard of higher accuracy to ensure the former is within specified limits throughout its entire range. The calibration process involves the use of approved instrument calibration procedures.

**CALIBRATION FACILITY** - An installation under the control of the military departments or any agency of DoD that provides calibration services for Precision Measuring Equipment (PME) and calibration standards used by activities engaged in research, development, test, and evaluation, production, Quality Assurance (QA), maintenance, supply, and operation of weapon system(s), equipment, and other DoD material.

**CALIBRATION INTERVAL** - The maximum length of time between calibrations that calibration standards of Precision Measuring Equipment (PME) are expected to maintain reliable measurement capability.

**CALIBRATION PROCEDURE** - A document that outlines the steps and operations to be followed by calibration personnel in calibrating an instrument.

**CALIBRATION STANDARD (CALSTD)** - COMNAVAIRSYSCOM calibration installation equipment used to maintain continuity of value in the units of measurement embodied by periodic comparison with higher echelon or National Institute of Standards and Technology.

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CANNIBALIZATION/CANNIBALIZE - Removal of serviceable parts from one aircraft or equipment for installation on another aircraft or equipment.

CARTRIDGE ACTUATED DEVICE - Explosive devices used to start a change of events within an aircraft (i.e. emergency landing gear extension, emergency jettison of external fuel tanks, etc.).

CATEGORY I PRODUCT QUALITY DEFICIENCY REPORT (CAT I PQDR) - Used for all quality deficiencies which may cause death, injury, or severe occupational illness; would cause loss of or major damage to a weapons system; critically restricts the combat readiness capabilities of the using organization; or which would result in a production line stoppage. Discrepancies that potentially impact safety or a critical characteristic on a product identified as a CSI shall be categorized as a CAT I PQDR.

CATEGORY II PRODUCT QUALITY DEFICIENCY REPORT (CAT II PQDR) - Used for quality deficiencies assessed to have significant and widespread material or human resource impact but do not affect safety of personnel or impair combat efficiency.

CATEGORY 1 TECHNICAL PUBLICATIONS DEFICIENCY REPORT (CAT 1 TPDR) - Required when a technical publication deficiency is detected which, if not corrected, could result in death, injury, or damage to or loss of, aircraft, equipment, or facilities.

CATEGORY 2 TECHNICAL PUBLICATIONS DEFICIENCY REPORT (CAT 2 TPDR) - A non-safety related technical data deficiency that results in ineffective maintenance practices that directly impacts mission accomplishment in an adverse manner, causing a maintenance delay of 8 hours or more. All non-safety measurement value discrepancies (PSI, torque values, voltage readings, etc.) shall be submitted as a CAT 2 discrepancy. In addition, PN discrepancies causing a maintenance delay of 8 hours or more shall be submitted as a CAT 2 TPDR.

CATEGORY 3 TECHNICAL PUBLICATIONS DEFICIENCY REPORT (CAT 3 TPDR) - A non-safety related technical data deficiency, for which an acceptable workaround causes maintenance delay of less than 8 hours. In addition, part number discrepancies causing a maintenance delay of less than 8-hours shall also be submitted as a CAT 3 TPDR.

CATEGORY 4 TECHNICAL PUBLICATIONS DEFICIENCY REPORT (CAT 4 TPDR) - A technical data deficiency of a non-technical or administrative nature, that has no safety or mission impact. CAT 4 TPDRs include misspelled words, List of Effective Page errors, or typographical errors.

CENTER FOR NAVAL AVIATION TECHNICAL TRAINING MARINE UNIT (CNATTMARU) - A Marine unit utilized for en-route training for specific weapon systems or equipment designated courses that provide training in familiarization, operation, and maintenance of the weapon system to be maintained in formal classrooms and practical application experience.

CENTER FOR NAVAL AVIATION TECHNICAL TRAINING UNIT (CENNAVAVNTECHTRAU) - An en-route training for specific weapon systems or equipment designated courses that provides training in familiarization, operation, and maintenance of the weapon system to be maintained in formal classrooms and practical application experience.

CENTRAL TECHNICAL PUBLICATIONS LIBRARY (CTPL) - Library of all technical manuals utilized within a unit.

CERTIFICATION (CERT) - Written testimony from competent instructional authority that the certified individual is qualified to act in a specific capacity.

CERTIFICATION PROCESSES - Includes all T&R Tasks (Maintenance and NAMP) encompassed within the attainment of Subsystem or System Skill Proficiency, Qualification or Designations, and required tests or boards. Once the certification process is complete, individuals are "certified eligible" to possess the particular Qualification, Designation, or License they are working to attain. The term "Certified" does not equate to Qualified or Designated.

CHANGE - See TECHNICAL DIRECTIVE CHANGE (TD CHANGE).

CHECKOUT - A sequence of functional or operational tests, or calibration, to determine the condition and status of a weapon system or its elements.

COLLATERAL DUTY INSPECTOR (CDI) - MOS specific production work center level maintenance inspector.

COLLATERAL DUTY QUALITY ASSURANCE REPRESENTATIVE (CDQAR) - An MOS-specific Quality Assurance Representative (QAR) assigned to a production work center.

COMPUTER AIDED INSTRUCTION (CAI) - Instruction delivered with the aid of computer.

COMPUTERIZED SELF EVALUATION CHECKLIST (CSEC) - A NAMP inspection checklist for programs, areas, and/or work centers. The most current version of the CSEC may be obtained at the following web address: <http://www.navair.navy.mil/logistics/csec/index.cfm>.

CONSOLIDATED HAZMAT REUTILIZATION AND INVENTORY MANAGEMENT PROGRAM - Program from ensuring all hazardous materials are collected and distributed as needed throughout different units.

CONSOLIDATED AUTOMATED SUPPORT SYSTEM (CASS) - An automatic, high speed, computer controlled, general purpose test system that will isolate faults to a piece/part level.

CONSUMABLE ITEM - Items that cannot be economically repaired and are discarded when found defective or those items that, upon installation, lose their identity and are "consumed" in-use.

CONTAMINANTS - Particles of foreign material which may or may not be visible to the unaided eye.

CONTRACT FIELD SERVICES - Those engineering and technical services provided to DoD personnel by commercial or industrial companies on-site at defense locations by trained and qualified engineers and technicians.

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CONTRACT MAINTENANCE - The maintenance of material by commercial organizations without distinction as to levels of maintenance accomplished and maintenance accomplished by private industry in government-owned, contractor-operated plants; contractor owned and operated plants; or by contract field teams.

CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR) - A business communications liaison between the United States government and a private contractor. The COTR is normally a federal or state employee who is responsible for recommending authorizing (or denying) actions and expenditures for both standard delivery orders and task orders, and those that fall outside of the normal business practices of its supporting contractors and sub-contractors.

CONTRACTOR ENGINEERING AND TECHNICAL SERVICES - Those services performed by commercial or industrial companies which provide advice, instruction, and training to personnel of the military departments in the installation, operation, and maintenance of DOD aeronautical systems and equipment. CETS consist of CONTRACT FIELD SERVICES, CONTRACTOR PLANT SERVICES, and FIELD SERVICE REPRESENTATIVE.

CONVENTIONAL ORDNANCE DEFICIENCY REPORT - A report submitted when a malfunction, observed defect, or induced defect involving conventional ordnance, explosives, ammunition, explosive systems, devices, or support and handling equipment used to handle, load, store, or transport ordnance.

CONVERSION (C) - See PROGRAM OF INSTRUCTION (CONVERSION)

CORE COMPETENCY RESOURCE MODEL - Model designed to support the aircraft maintenance program by using external AMTRP external resources such as class room spaces, simulators, Part Task Trainers (PTTs), Computer Aided Instruction (CAI), Marine Aviation Training Systems Site (MATSS) capabilities, etc.

CORE MODEL MINIMUM REQUIREMENT - Establishes the unit requirement to sustain two-shift, 24-hour maintenance operations during peacetime, wartime, or contingency operations. CMMR is defined in terms of numbers of individuals required to be SSP, Qualified or Designated as Maintenance Leaders, and licensed on unit-critical SE.

CORRECTIVE ACTION - Action necessary to remove or control the cause of deficiencies in products, systems, or processes. A documented design, process, procedure, or material's change implemented and validated to correct the cause of failure or design deficiency.

D

DAILY INSPECTION - Inspection performed on an aircraft within 72 hours of take off.

DEFENSE READINESS REPORTING SYSTEM (DRRS) - A reporting system that is mission-focused and capabilities-based which provides combatant commanders, military services, Joint Chiefs of Staff (JCS), and other key DoD users a data-driven environment and tools to help evaluate, in near real-time, the readiness and capability of U.S. Armed Forces to carry out assigned and potential tasks.

DEPOT LEVEL MAINTENANCE - Maintenance done on material requiring major rework or a complete rebuild of parts, assemblies, subassemblies, and end items, including manufacture, modification, testing, and reclamation of parts as required. D-level maintenance serves to support lower levels of maintenance by providing technical assistance and performing maintenance beyond the responsibility of O-level and I-level maintenance. D-level maintenance provides stocks of serviceable equipment by using more extensive facilities for repair than are available in lower level maintenance activities.

DESIGNATION - A position or billet assigned to an individual in writing based on the completion of a required certification process. Designations are command specific and remain in effect unless removed for cause or conflict of interest in accordance with NAMP policy. Specific designation requirements shall be delineated in individual T&R manuals and the NAMP.

DETACHMENT - A temporary reporting custodian with aircraft assigned from a parent squadron or unit. Detachments are established when a squadron deploys one or more aircraft to a ship or base substantially removed from the location of the parent organization; the parent squadron CO feels that it would be impractical to retain reporting custody of the aircraft so deployed. Detachments have the same responsibilities, with respect to the requirements of this instruction, as all other reporting custodians of aircraft.

DEVIATION - To depart from established policy or procedures, such as deviation from the NAMP. A specific written authorization granted prior to the manufacture of an item to depart from a particular performance or design requirement of a specification, drawing, or other document for a specific number of units or a specific period of time. A deviation differs from an engineering change in that an approved engineering change requires corresponding revision of the documentation defining the affected item, whereas a deviation does not contemplate revision of the applicable specification or drawing. DFAS - DEFENSE

DEVICE OPTION - Secondary means in which to train a task. Identified by either a one- or two-letter designation.

DEVICE TYPE - Primary means in which to train a task. Identified by either a one- or two-letter designation.

DIRECTIVE - A military communication in which a policy is established, a specific action is ordered, or a plan is put in effect.

DOCUMENT - Specifications, lists, drawings, sketches, standards, pamphlets, reports, or other information relating to design, procurement, manufacture, test, or inspection of items or services under a contract. Also, in the Maintenance Data System (MDS), any forms used to collect data at its source for conversion to machine records.

DURATION -The average time to execute a Task requirement, accounting only for the Task and not associated administrative actions. Shall be stated in whole- or half-hour increments.

**E**

EDDY CURRENT - A method that uses induced eddy currents in detecting flaws in metal parts, such as cracks, inclusions, voids, seams, and laps. This method can also be used for sorting according to alloy temper, conductivity, and other metallurgical factors by variations in electrical characteristics/energy losses. See Nondestructive Inspection.

EFFECTIVE - The ability to achieve desired mission-oriented results on a continual basis.

EGRESS SYSTEM - An ejection seat, interconnect and sequence system, installed parachute and seat survival kit, and the explosive devices and rocket motors used in their propulsion. It also includes hatches or canopies which are shattered or jettisoned from the aircraft by use of explosive devices.

ELECTROMAGNETIC COMPATIBILITY - Capability of electronic equipment or systems to be operated within a defined margin of safety in the intended environment at desired levels of efficiency without degradation due to interference.

ELECTROMAGNETIC ENVIRONMENT - Composite of all radiated and conducted electromagnetic energy encountered by a military platform when performing its assigned mission in its intended environment.

ELECTROMAGNETIC INTERFERENCE - Any electromagnetic disturbance that interrupts, obstructs, or otherwise degrades or limits the performance of electronics/electrical equipment.

ELAPSED MAINTENANCE TIME - For the purposes of Maintenance Data Reporting, EMT is defined as the actual clock time, in hours and tenths, that maintenance was being performed on a job. EMT does not include the clock hours and tenths for cure time, charging time, or leak test when they are being conducted without maintenance personnel actually monitoring the work. Although the EMT is directly related to job man-hours, it is not to be confused with total man-hours required to complete a job. For example, if five men complete a job in 2.0 hours of continuous work, the EMT=2.0 hours and the man-hours=10.0.

ELECTROSTATIC DISCHARGE - The transfer of electrostatic charge between bodies at different electrostatic potentials caused by direct contact or induced by an electrostatic field and is potentially damaging to electrical and electronic equipment.

ELECTROSTATIC DISCHARGE SENSITIVE - Any item that is susceptible to ESD is listed as ESDS.

ENGINE ACCESSORIES - Those items of equipment required for engine operation that are not an integral part of the engine. Such equipment is included in the engine IPB. In most cases they are attached to the engine, but in special situations could be airframe mounted, such as oil pumps, fuel controls, engine driven fuel pumps, temperature amplifiers, afterburner controls, carburetors, magnetos, distributors, and ignition harnesses.

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ENGINEERING CHANGE PROPOSAL - A term that includes both a proposed engineering change and the documentation by which the change is described and suggested.

ENGINEERING INVESTIGATION - (1) Provide an investigation process to determine cause and depth of fleet-reported material failures. (2) Support investigations of material associated with aircraft mishaps, lightning strikes, electromagnetic interference, and stray voltage problems. (3) Provide for investigation of components rejected through the NOAP. (4) Support SRC, ASR, EHR, and MSR programs by providing for investigation of high-time and on-condition components and assemblies to confirm, revise, or initiate component and assembly operating times. (5) Provide engineering assistance for any fleet material problem. (6) Support mandatory investigation requirements for activated aircraft escape systems in OPNAVINST 3750.6.

EQUIPMENT HISTORY RECORD - Card located in the aircraft logbook that tracks all maintenance history of repairable components that are not scheduled life removal components.

EQUIPMENT OPERATIONAL CAPABILITY CODE - EOC codes relate a particular system/subsystem within a T/M/S of equipment to a specific mission. An EOC code is a three-character alphanumeric code that identifies the degree of degradation to mission capability and the system responsible for the degradation. The first character (alpha) is documented on the VIDS/MAF Copy 1 (as applicable). The second and third characters (numeric) are computer generated from the first two positions of the WUC.

EQUIPMENT OUT OF SERVICE - Nonoperational aircraft in relation to SCIR documentation. Those aircraft which are "OUT" of material condition reporting status and are reported in an inventory status code other than A.

EVALUATED TASK - An evaluated task requires an examination (written and/or oral) and the recording of the results into the training management system. (See SIGN-OFF AUTHORITY)

EXPLOSIVE EVENT REPORT - A report submitted when a event involving conventional ordnance, ammunition, explosives, explosive systems and devices resulting in an unintentional detonation, firing, deflagration, burning, launching of ordnance material (including all ordnance impacting off-range), leaking or spilled propellant fuels and oxidizers (less OTTO fuel II), or chemical agent release. Even if an ordnance system works as designed and human error contributed to an event. This pertains to all events that do not meet the severity classification of class A, B or C (Explosive Mishap).

EXPLOSIVE ORDNANCE - Complete air launched weapon system(s) and components, except torpedoes and mines. Torpedoes and mines, supported by the COMNAVSEASYS COM, are in some cases adapted to aircraft delivery. COMNAVAIRSYS COM is responsible for the modification and equipment necessary to carry these weapons in aircraft.

EXPLOSIVE SYSTEM - Includes its components and the operationally adjacent mechanisms. Examples of explosive systems are: small arms, chaff dispensers, projectiles, bombs, missiles, rockets, targets using

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explosive materials, mines, torpedoes, grenades, charges, rounds, CADs, PADs, explosively operated stud drivers, gun mounts, missile grenades, and sonobuoys.

EXTERNAL SYLLABUS SUPPORT - Any external or outside support required to complete the task. (i.e. PTTs, MATSS, etc.)

**F**

FEDERAL LOGISTICS DATA (FEDLOG) - An interactive query system using a variety of types of search data to significantly reduce the time required to access all information necessary to identify and order supplies.

FIELD CALIBRATION ACTIVITY - An I-level (W/C 670) calibration activity that provides calibration/repair services to MEASURE participants.

FIX PHASE - The portion of a scheduled inspection that involves the correction of discrepancies found during the look phase.

FLEET AVIATION SPECIALIZED OPERATIONAL TRAINING GROUP (FASOTRAGRU) - An activity that trains fleet personnel under TYCOM direction in operational and tactical usage of weapon systems and in aviation maintenance management and administration.

FLEET WEAPONS SUPPORT TEAM (FWST) - An integrated program team assigned the responsibility to perform specified in-service engineering and logistics functions by the PMA.

FLIGHT LIFE EXPECTANCY - The time period, tracked by flight hours, during which the item can be maintained in service without replacement.

FOREIGN OBJECT DAMAGE (FOD) - Damage to aeronautical equipment, for example, aircraft, engines, missiles, drones, and SE caused by an object(s) external to the equipment. (Gas turbine engine FOD is defined as damage that exceeds serviceable limits caused by ingestion of objects not organic to the damaged engine.)

FULL MISSION CAPABLE - Material condition of an aircraft that can perform all of its missions. FMC is subdivided into FMC Maintenance (M) and FMC Supply (S). FMC Hours = MC Hours - PMC Hours.

FUNCTIONAL TEST - The testing of installed aircraft/engines, accessories, and equipage to determine proper functioning, particularly with respect to the applicable system.

**G**

GAS TURBINE ENGINES- All turbine engines, whether used to power flight (including target drones, missiles, and missile targets), for auxiliary power, or for starting purposes. Airborne or ground units are included in the meaning of this term.

GOVERNMENT FURNISHED EQUIPMENT - Equipment that has been selected and is to be furnished by the government to a contractor or government activity for installation in, use with, or in support of the aeronautical system during production, conversion, or modification.

GOVERNMENT FURNISHED EQUIPMENT (MANAGER) - The designated individual or office assigned by the Executive Service Program Manager responsible for the GFE Program. The GFE Manager provides a central point of contact for all GFE as related to the Aeronautical System Program.

## H

HAZARD REPORT- To report a new or continuing hazard and corrective actions taken, (or recommended corrective actions to assist others) to reduce the severity and/or exposure to a hazard.

HAZARDOUS MATERIAL - Any material still within useful service life which presents a potential threat to human health or to the environment.

HAZARDOUS MATERIAL REPORT- a standard method for reporting material deficiencies which, if not corrected, could result in death or injury to personnel, or damage to or loss of aircraft, equipment, or facilities.

HAZARDOUS WASTE- Any material past its useful service life which presents a potential threat to human health or to the environment.

HAZARDOUS WASTE MINIMIZATION CENTER - Building where all hazardous waste is taken to and stored while awaiting disposal.

HELICOPTER DYNAMIC COMPONENT - The part or series of parts that transmits power from the aircraft power plant to the rotary wing and rotary rudder (main, intermediate and tail gear boxes; main and tail rotors; clutches and related drive shafting).

HOT REFUELING - An operational evolution where an aircraft is refueled while the engine(s) is (are) operating.

HOT SEAT - An operational evolution where the pilot/crew of an aircraft is changed while the engine(s) is (are) operating and the aircraft is to be immediately re-launched.

## I

ILLUSTRATED PARTS BREAKDOWN (IPB) - A manual containing illustrations and part numbers for all parts of the aircraft or equipment on which it is issued. The IPB contains information required for ordering parts, including part numbers, and for identifying parts and arrangements of parts in assemblies.

IN-SERVICE SUPPORT CENTER (formerly FST) - The engineering (AIR 4.0), logistics (AIR 6.0H), and program management (AIR 1.0) organizations located at the former depot facilities at Cherry Point, Jacksonville, and North Island. They have the responsibility for providing the in-service support for Navy and Marine Corps aviation assets throughout the FRCs, with each ISSC having a regional coverage area.

IN-SERVICE TRAINING (IST) - Maintenance IST maintains and increases technical knowledge and proficiency ensuring assigned personnel are adequately trained to safely perform their duties. This training is accomplished via lectures, Interactive Multimedia Instruction (IMI),

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videotapes/films, Personal Qualification Standards (PQS), required reading, and OJT.

IN-SHOP MAINTENANCE - Work that requires the use of shop facilities and cannot be normally performed outside the shop. (Bench test and component disassembly and repair are examples of in-shop maintenance work.)

INDIVIDUAL ACTION CODE (IAC) - The IAC, in conjunction with the WUC, will assist in automatically recording OJT accomplished in ASM. The WUC/IAC is required in order to use NALCOMIS MAF data to update the maintenance training information:

INDIVIDUAL MATERIAL READINESS LIST (IMRL) - A consolidated list shows items and quantities of certain SE required for material readiness of the aircraft ground activity to which the list applies. The lists are constructed by extracting those portions of SERMIS that pertain to the maintenance and material logistics responsibilities of the activity to which the list applies.

INDIVIDUAL TRAINING STANDARDS SYSTEM - A Marine Corps performance-based, standardized, documentable, level progressive, technical skills training management and evaluation program for enlisted Marines engaged in aircraft maintenance.

INITIAL OUTFITTING - The process of issuing, assembling, and delivering allowances of aeronautical material and equipment to vessels in any one of the following categories: (1) new construction, (2) conversion, or (3) activating from reserve fleets.

INITIAL TRAINING - Training performed to enable the training agency to acquire the capability for training. Normally, the initial cadre is composed of instructional personnel. The scope of initial training includes furnishing those training aids, for example, transparencies, charts, diagrams, and films, or devices evolved by the manufacturer in the production of new weapons systems, preparation of technical or instructional publications, and initial instructional training.

INSPECT - To compare the characteristics of an item with established standards.

INSPECTION - The examination and testing of supplies and services, that include raw materials, components, and intermediate assemblies, to determine whether they conform to specified requirements.

INTERACTIVE MULTIMEDIA INSTRUCTION (IMI) - IMI applies to predominantly interactive, electronically delivered training and training support products. IMI products include all instructional software, content, graphics and software management tools used to support instructional programs (MIL-HDBK-29612-3A).

INTERIM AIRFRAME CHANGE - Urgency sometimes requires change incorporations be initiated without delay. In such cases, proposed changes are submitted in TD format and, after approval, are disseminated immediately by message. These message TDs are designated "Interim Changes", for example, IAFC and IAVC, and are filed in publications libraries in the same manner as Formal Change TDs.

INTERIM AVIONICS CHANGE - Urgency sometimes requires change incorporations be initiated without delay. In such cases, proposed changes are submitted in TD format and, after approval, are disseminated immediately by message. These message TDs are designated "Interim Changes", for example, IAFC and IAVC, and are filed in publications libraries in the same manner as Formal Change TDs.

INTERIM RAPID ACTION CHANGE (IRAC) - Issued by naval activities or Contract Administrative Offices as an interim change to provide urgent technical manual change data.

INTERMEDIATE-LEVEL CALIBRATION ACTIVITY - A Navy activity, other than a Navy calibration or standards laboratory, authorized by the TYCOM and COMNAVAIRSYSCOM to perform calibration.

INTERMEDIATE LEVEL MAINTENANCE - Maintenance which is the responsibility of, and performed by, designated maintenance activities for direct support of using organizations. Its phases normally consist of calibration, repair or replacement of damaged or unserviceable parts, components, or assemblies; the emergency manufacture of nonavailable parts; and the provision of technical assistance to using organizations.

INTERMEDIATE MAINTENANCE ACTIVITY (IMA) - An aviation activity (ship or station) authorized to provide I-level maintenance support. It consists of the aircraft maintenance, supply, and weapons departments/divisions.

ITEM - Any level of hardware assembly, for example, segment of a system, subsystem, equipment, or component part.

ITEMS PROCESSED - This term identifies the total number of times an AT code is applied toward a WUC.

## J

JOINT OIL ANALYSIS PROGRAM - The JOAP establishes policy, responsibilities, and requirements for monitoring equipment condition in an effort to detect impending failures without equipment removal or extensive disassembly.

JULIAN DATE - The year and numerical day of the year identified by four numeric characters. The first two characters indicate the year and the remaining three characters specify the day of the year, for example, 05210 indicates the 210th day of 2005 or 28 July 2005.

## K

## L

LEAD TIME - A composite of production, administrative (both contractor and government), spares positioning, and shipping time.

LEVEL OF SUPPLY - The quantity of supplies or materials authorized or directed to be held in anticipation of future demands.

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LIFE CYCLES - The total life span of an aeronautical system beginning with the concept formulation phase and extending through the operational phase up to retirement from the inventory.

LIQUID PENETRANT - Methods used for the detection of surface cracks or discontinuities. The inspection surfaces are sprayed with or immersed in liquid, the excess liquid is removed, and the defect is indicated visually by color or fluorescence.

LOCAL ASSET MANAGEMENT SYSTEM - An automated MIS which provides standardized local management of IMRL assets through the use of bar code technology. It provides for an accurate wall to wall inventory, which can be accomplished by unit personnel, resulting in significant reductions of manpower expenditures and operational disruptions.

LOCAL PURCHASE - The function of acquiring a decentralized item of supply from sources outside the DoD.

LOGISTICS - The science of planning and carrying out the movement and maintenance of forces. For its most comprehensive sense, those aspects of military operations that deal with design and development, acquisition, storage, movement, distribution, maintenance, evaluation, and disposition of material; movement, evaluation, and hospital inspection of personnel; acquisition or construction, maintenance, operation, and disposition of facilities; and acquisition or furnishing of services.

LOGISTICS SUPPORT - The materials and services required to enable the operating forces to operate, maintain, and repair the end item within the maintenance concept defined for that end item. Logistics support encompasses the identification, selection, procurement, scheduling, stocking, and distribution of spares, repair parts, facilities, SE, trainers, technical publications, CETS, and personnel training as necessary to provide the operating forces with the capability needed to keep the end item in a functioning status.

LOGISTICS SUPPORT EQUIPMENT - Equipment used for the packaging, bulk handling, storage/stowage, and transportation of weapons and weapon components. Some of these items are categorized as materials handling equipment and ordnance handling equipment.

LONG LEAD TIME ITEMS - All parts for which the contractor, because of the length of time needed to meet end article delivery schedules, considers it essential to have firm orders placed prior to normal repair parts procurement schedules to permit delivery of the item to meet operational support dates.

LOOK PHASE - The portion of an inspection that includes the basic requirements outlined by the PMICs, excluding repair of discrepancies that cannot be completed within the time allotted on MRCs.

LOW CYCLE FATIGUE (LCF) - A fatigue cracking failure mode that is defined by the frequency and characteristics of the loading that causes the crack. LCF is caused by stresses built up by mechanical/thermal cycles which occur only a few times per flight. The four most significant LCF events are: stop/start/stop cycles, rapid major changes

in operating temperature, rapid major changes in rotational speed, and significant increases in aerodynamic loading of the blades/disks.

## M

**MAGNETIC PARTICLE** - A method that uses magnetic fields for the purpose of detecting fine discontinuities at or near the surface of the part. This method is limited to ferromagnetic materials.

**MAINTENANCE ACTION** - Any one of a number of types of specific maintenance operations necessary to retain an item in or restore it to a specified condition.

**MAINTENANCE ACTIVITY** - Any organization (activity or unit) of the naval establishment assigned the mission, task, or functional responsibility of performing aircraft upkeep or rework. Use of the term refers to organizations and personnel occupying aircraft maintenance facilities and using aircraft maintenance material, but does not include reference to the facilities or material themselves. Aircraft maintenance activities are classified as to levels of maintenance performed. The highest level a particular activity is responsible for performing is established as the activity's classification. This classification does not necessarily mean the activity involved is responsible for all lower levels of maintenance.

**MAINTENANCE ALLOCATION TABLE** - Describes the function to be performed in the repair of gas turbine engines, identifying the degree of repair.

**MAINTENANCE AND SUPPORT PLANS** - Combined elements of a maintenance plan per DODINST 5000.2-R and referring to maintenance and logistical support documents, such as User's Logistic Support Plan, Post Production Support Plan, ALSF, or SSMP maintenance manuals specific to a particular T/M/S aircraft.

**MAINTENANCE CODE** - Codes assigned to support items to indicate the maintenance levels authorized to remove and replace, repair, overhaul, assemble, inspect and test, and condemn items. Also assigned to maintenance tools and end items of SE to indicate the lowest level of maintenance requiring the item.

**MAINTENANCE CONTROL** - The functional organization within the OMA responsible for workload control.

**MAINTENANCE DEPARTMENT** - The part of an activity responsible for the aircraft maintenance functions, also considered a maintenance activity. In the shore establishment, stations responsible for I-level maintenance will have maintenance departments.

**MAINTENANCE DETACHMENT** - The part of an aircraft maintenance activity geographically separated from but administered by the parent activity.

**MAINTENANCE DIVISION/BRANCH** - The part of an activity responsible for the activity's aircraft maintenance functions; or the part of an aircraft maintenance department responsible for a specific part of the department's functions, for example, repair of power plants. In the shore establishment, stations responsible for only I-level and O-level

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maintenance will have maintenance divisions of operations or air departments.

**MAINTENANCE INSTRUCTIONS MANUAL** - Contains instructions for O-level, I-level, and D-level maintenance and servicing of a specific weapon system and related airborne equipment including SE.

**MAINTENANCE LEADER** - An individual who demonstrates knowledge and skill in their MOS and obtains leadership Qualifications and Designations such as Collateral Duty Inspector (CDI), Quality Assurance Representative (QAR), etc.

**MAINTENANCE LEVELS** - Maintenance tasks divided into the number of levels required so common standards can be applied to the many and varied aircraft maintenance activities of the military establishment. They are increments of which all maintenance activities are composed. JOINT PUB-1-02 defines the three levels as Depot, Intermediate, and Organizational. (See DEPOT, INTERMEDIATE, and ORGANIZATIONAL LEVEL MAINTENANCE definitions in this Appendix.)

**MAINTENANCE MANAGEMENT** - The process of planning, organizing, staffing, directing, and controlling organic industrial resources required for physically performing equipment maintenance.

**MAINTENANCE PERFORMANCE DATA** - Data relating to the use and application of the work force, industrial equipment, and dollars to sustain weapons and end item equipments in an operational status.

**MAINTENANCE PLAN** - A document containing technical data, tailored to a specific weapon system maintenance concept, which identifies maintenance and support resource requirements to maintain aeronautical systems, equipment, and SE in an operationally ready state. The maintenance plan provides the interface between maintenance engineering and supply for provisioning purposes and communicates inputs to enable other logistic element managers to develop their hardware support requirements. The maintenance plan is designed as a tool for the shore community for integrated logistic support planning and is prepared per NAVAIRINST 4790.22.

**MAINTENANCE PLANNING** - The design, method, or scheme for accomplishing an aircraft mission or reaching an aircraft maintenance objective or objectives.

**MAINTENANCE PROCEDURES** - Established methods for periodic checking and servicing of items to prevent failure or to affect a repair.

**MAINTENANCE PRODUCTION** - The activity of equipment maintenance involving the physical performance of those actions and tasks attendant to the equipment maintenance function for servicing, repairing, testing, overhaul, modification, calibration, modernization, conversion, inspection, etc. The accomplishment of these tasks is normally carried out at O-level, I-level, and D-level maintenance activities.

**MAINTENANCE PRODUCTION MANAGEMENT** - The process of planning, organizing, staffing, directing, and controlling organic industrial resources engaged in the physical performance of equipment maintenance.

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MAINTENANCE REQUIREMENTS CARD (MRC)- Card sets issued by COMNAVAIRSYSCOM containing scheduled maintenance requirements applicable to I-level and O-level activities for the specific aircraft/SE for which they are issued.

MAINTENANCE RESOURCES - Personnel, materials, tools, equipment, facilities, technical data, and dollars provided to carry out the equipment maintenance mission.

MAINTENANCE STATUS - The classification or condition of equipment undergoing preventive/restorative action.

MAINTENANCE STATUS DISPLAY AND RECORDING SYSTEM - Monitors engine and airframe operational status for unit failures, cautions, and advisory conditions and sends this information to the mission computer system for processing on selected aircraft.

MALFUNCTION DESCRIPTION CODE (MAL CODE) - A three-character numeric or alphanumeric code used to describe the malfunction occurring on or in an item identified by a WUC.

MAN-HOURS - The total number of accumulated direct labor hours (in hours and tenths) expended in performing a maintenance action. Direct maintenance man-hours are man-hours expended by assigned personnel to complete the work described on the source document. This includes the functions of preparation, inspection, disassembly, adjustment, fault correction, replacement or reassembly of parts, and calibration/tests required in restoring the item to a serviceable status. It also includes such associated tasks as checking out and returning tools, looking up part numbers in the IPB, transmitting required information to material control, and completing documentation of the MAF.

MANAGEMENT - A general term to denote central executive direction and control of work by an individual or organization specifically assigned and funded to accomplish the function.

MANAGEMENT AUDIT - A periodic assessment of a command's managerial planning, organizing, actuating, and controlling compared to what might be the norm of successful operation. Management auditors do not appraise individual performance.

MANAGEMENT INFORMATION SYSTEM(S) - Manual or automated techniques, makes information available for all echelons of management upon which to base management decisions.

MANUFACTURER - Individual, company, firm, corporation, or government activity engaged in the fabrication of finished or semi-finished products.

MARINE AVIATION LOGISTIC SQUADRON (MALS)- The unit or activity within a MAG assigned the mission of providing I-level support to the squadrons of the MAG.

MARINE AVIATION LOGISTICS SUPPORT PROGRAM (MALSP) - Provides the framework within which a variety of concepts, programs and allowances are developed to support each T/M/S aircraft that could be used to form the aviation combat element of a MAGTF. The focus of the MALSP is to

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identify and integrate the personnel, SE, mobile facilities or shelters, and repair or spare parts required to sustain a unit.

MARITIME PREPOSITIONED SHIPS (MPS) - A cargo ship that is strategically placed for rapid deployment of Marine Expeditionary Unit gear.

MASTER REPAIRABLE ITEM LIST - A listing, in NIIN sequence, of all repairable assemblies, indicating the DRP (Navy or commercial) and provides shipping instructions for these assemblies when they become defective. This list is published as NAVSUP Publication 4107.

MATCHED SET - A group of two or more separate components that function together in a single system and are normally removed, repaired, checked, adjusted, calibrated, and installed together. Replacement of a single component of a matched system normally requires check, adjustment, or calibration of the matched set.

MATERIAL - All items necessary for the equipment, maintenance, and support of military activities without distinction as to their application for administrative or combat purposes, excluding ships or naval aircraft.

MATERIAL CONDITION - Reporting status with respect to SCIR.

MATERIAL CONDITION INSPECTION - MCI replaces ASPA/SDLM for a specific T/M/S aircraft which have been designated by OPNAV N781 as nearing the end of their service life. These aircraft are no longer funded for standard rework. The purpose of MCI is not a PED adjustment, but to ensure airworthiness for an additional operational flying period specified by OPNAV.

MATERIAL CONTROL CODE - A single alphabetic character assigned by the inventory manager to segregate items into more manageable groupings (fast, medium, or slow movers) or to relate to field activities special reporting/control requirements.

MATERIAL CONTROL REGISTER - A register established to record all requisitions for material passed to the Supply Support Center.

MATERIAL HANDLING EQUIPMENT - Commercially available industrial equipment, such as forklifts, warehouse tractors, pallet trucks, and platform trucks. Some of these items are approved for use in ammunition and explosive ordnance handling operations, and are a category of logistic SE.

MATERIAL REPORTING - The procedure whereby all supply actions and documents in support of maintenance are entered.

MATERIAL REQUIREMENTS - Those quantities of items of equipment and supplies necessary to equip, provide a material pipeline, and sustain a service, formation, organization, or unit in the fulfillment of its purpose or task during a specified period.

MATERIALS TESTING - Mechanical testing and chemical analysis of material. Mechanical testing is the method by which the mechanical properties of a material are determined. Mechanical properties are properties of a material that reveal its elastic and inelastic behavior

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when force is applied. This indicates its suitability for mechanical applications, for example, modulus of elasticity, tensile strength, elongation, hardness, and fatigue limits. Chemical analysis is the characterization of a substance by definite molecular composition. (See NONDESTRUCTIVE TESTING AND INSPECTION (NDT/I), PRESERVATION, VIBRATION ANALYSIS, and WELDING/BRAZING.)

MAY - Indicates adherence to policy is optional.

MEAN TIME BETWEEN FAILURES - The total functioning life of a population of an item divided by the total number of failures within the population during the measurement interval. The definition holds for time, cycles, miles, events or other measure of life units.

MEASURE OPERATIONAL CONTROL CENTER - The Atlantic and Pacific terminals of the MEASURE automated information system network. These centers maintain data files for respective area customers and MEASURE participants. Products, as may be required, are produced and distributed via telecommunications, hard copy, or tape to elements of the distributed network and various agencies on a regular or as required basis.

METER READING - Meter readings apply to only those items that have a clock/meter installed. Readings will be in time, cycles, or starts to the nearest whole number.

METROLOGY - The science of measurement or determination of conformance to technical requirements including the development of standards and systems for absolute and relative measurements.

METROLOGY AUTOMATED SYSTEM FOR UNIFORM RECALL AND REPORTING - A metrology system for the recall and reporting of test equipment by means of MIS techniques, maintains records of calibration and automatically recalls items when due for calibration.

METROLOGY EQUIPMENT RECALL CARD - Source document used to update the MEASURE. All actions to PME/TAMS are reported to MEASURE via METER cards.

MILITARY OCCUPATIONAL SPECIALTY (MOS) - A four digit job classification in use by the U.S. Marine Corps to identify Marines by occupation. Occupational Fields (OccFlds) are identified in the first two digits and represent a grouping of related MOSs. Job codes are identified in the last two digits and represent a specific job within that OccFld. An MOS can be awarded as a Primary MOS (PMOS), an Additional MOS (AMOS), or as a Skill Designator.

MILITARY STANDARD REQUISITIONING AND ISSUE PROCEDURE - A uniform procedure established by the DoD for its own use to govern requisition and issue of material within standard priorities.

MISHAP, AIRCRAFT - A naval aircraft mishap is an unplanned event or series of events, directly involving naval aircraft which result in ten thousand dollars or greater cumulative damage to naval aircraft, other aircraft DoD or non-DoD) and property (DoD or non-DoD). Property damage includes costs to repair or replace facilities, equipment or material; or an injury as defined in OPNAVINST 3750.6.

MISSILE AIRFRAME - The assembled, principal structural components less propulsion system, control system, electronic equipment, and payload.

MISSILE TARGETS - All recoverable and non-recoverable, remotely controlled or programmed, unmanned aerial target vehicles; also remotely controlled or programmed powered land target and target boats, but excludes drones.

MISSION - (1) The objective; the task together with the purpose, which clearly indicates the action to be taken and the reason for it. (2) In common usage, especially when applied to lower military units, a duty/task assigned to an individual. (3) The dispatching of one or more aircraft to accomplish one particular task.

MISSION CAPABLE - Material condition of an aircraft that can perform at least one and potentially all of its missions. MC Hours = EIS Hours - NMC Hours.

MISSION ESSENTIAL - Anything authorized and assigned to the approved combat and combat support forces which would be immediately employed to wage war and provide support for combat actions.

MISSION ESSENTIAL SUBSYSTEM - Subsystems of an aircraft required to perform the designated missions as determined by use of the applicable MESM.

MISSION-ESSENTIAL SUBSYSTEM MATRICIES - Published in OPNAVINST 5442.4, lists, for each model, the equipment systems/subsystems that must be on board and in working order before an aircraft can qualify as mission ready.

MISSION ESSENTIAL TASK (MET) - A unit of work usually performed over a finite period of time that is essential to mission accomplishment.

MISSION ESSENTIAL TASK LIST (METL) - The METL is the commander's tool for remaining focused on mission accomplishment. A METL contains the list of a command's essential tasks with appropriate conditions and performance standards to assure successful mission accomplishment.

MOBILE FACILITY - A relocatable tactical shelter and its related equipment. The principle application in naval aviation of an MF is to provide relocatable housing for aviation weapon systems and SE maintenance and related functions. They may be used on board ship as well as ashore.

MODEL DESIGNATION - Each Navy aircraft is designated by a combination of significant letters and numbers per the system contained in OPNAVINST 13100.1. The designation generally indicates the type and mission capability of the aircraft, for example, P-3C.

MODULAR ENGINES - Engines consisting of several independent assemblies called modules, which by design can be removed or replaced without major disassembly of the engine or other modules, for example, compressor, combustion, turbine, afterburner, gearbox, torque meter, or combination thereof.

MODEX - Side number of an individual aircraft. Leave blank for SE.

MULTIPLE ORGANIZATION CODES - The ability to have more than one ORG code assigned to a NTCSS NALCOMIS Foundation Server. The purpose of MULTI-ORG coding is to manage multiple assets assigned to different organizations on one NTCSS NALCOMIS Foundation Server.

**N**

NALCOMIS DATA COLLECTION SYSTEM CENTER - NTCSS Optimized OMA NALCOMIS was developed as part of ADW and provides data input through local data collection and the ability to extract data for the efficient and economical maintenance management.

NAMDRP TOOL KIT - An electronic support system accessed via the <https://namdrp.navair.navy.mil/> web site. The tool kit is designed to be used by program ISSC, COMNAVAIRSYSCOM Program Managers, private sector contractors, and fleet users to process exhibits and disseminate data and documentation pertinent to the NAMDRP process. This integrated approach ensures all personnel providing support to applicable programs have enough available information to enhance decision making at all levels. The tool kit implements state-of-the-art methods and tools for providing information, management philosophy, design methods, cost trade-off analysis, and modeling concepts to significantly improve the effectiveness of processing exhibits.

NATIONAL ITEM IDENTIFICATION NUMBER (NIIN) - A two-digit National Codification Bureau code combined with seven other digits.

NATIONAL STOCK NUMBER (NSN) - A 13-digit number consisting of the four-digit FSC and the nine-digit NIIN. Component segments of NSN 5330-00-123-4567 are identified as (a) FSC: 5330; and (b) NIIN: 00-123-4567.

NAVAL AIR TRAINING AND OPERATING PROCEDURES STANDARDIZATION - A manual of general flight and operating instructions applicable within the naval aviation establishment issued for individual aircraft which are intended to complement OPNAVINST 3710.7.

NAVAL AVIATION LOGISTICS COMMAND MANAGEMENT INFORMATION SYSTEM ORGANIZATIONAL LEVEL MAINTENANCE ACTIVITY - A modern, real time, on-line responsive computer based automated MIS, allows Navy and Marine Corps aviation maintenance unit personnel to record flight and maintenance actions. O-level maintenance managers can use this data to quickly obtain timely and accurate aircraft and equipment maintenance status, scheduled maintenance requirements and additional information required in their day-to-day management and decision making process.

NAVAL AVIATION LOGISTICS DATA ANALYSIS - An automated data base and information retrieval system for aviation logistics management and technical decision support. Analysis capability is provided through interactive query and batch processing from remote terminals. NALDA assists users in making improved decisions affecting fleet aircraft readiness. Users can define, identify, and isolate logistics problem areas from a centralized data bank of integrated aviation logistics information.

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NAVAL AVIATION MAINTENANCE PROGRAM (NAMP) - Maintenance policies, procedures, and responsibilities of personnel for the conduct of standard operating procedures at all levels of maintenance throughout Naval Aviation.

NAVAL AVIATION MAINTENANCE PROGRAM STANDARD OPERATING PROCEDURES - Standard operating procedures for maintenance programs and processes that provides standard procedures in sufficient detail to not require additional instructions written below COMNAVAIRSYSCOM level (with the exception of Local Command Procedures.

NAVY DIRECTIVES SYSTEM - Consists of instructions and notices employing the standard subject identification code numbering system for identification and filing purposes. The system is used throughout the Navy for issuing directives on policy, organization, administrative methods, or procedures.

NAVY TRAINING SYSTEMS PLAN - The official statement of billets, personnel, and training input and resource requirements to support introduction and operational use of aircraft, systems, subsystems, equipments, and other developments. The NTSP assigns responsibilities for planning, programming, and implementing actions necessary to provide the required support.

NAVY WORKING CAPITAL FUND - A working capital fund (revolving fund) established with the goal of recovering enough money from sales to replace sold material, used to finance the procurement and repair of secondary item inventories (including repairables), which will eventually be charged to the customer's end use funds. In addition to purchasing expense items to be centrally managed by NAVICPs, the NWCF is also the funding mechanism by which the Navy acquires DLA or GSA managed expense items and places them in Navy retail inventory.

NEEDS MORE ATTENTION - Any NAMP that is established but not in full compliance with governing directives and requires additional attention to prevent further degradation and the potential to impact the safety of personnel and the safety of flight or that has significant discrepancies that render the program or process inefficient as determined by the team officer.

NEW PRODUCTION AIRCRAFT - Aircraft without regard to model or configuration that are in the first year of operational use by the fleet or training commands and not deployed aboard ships or overseas.

NON-AVIATION SHIP - For NAMP purposes, ships not designated as Aviation Ship, such as CG, FFG, AFS, DD. Nonaviation ships may be air or aviation capable.

NON-AVIONICS SE - Nonavionics SE (common and peculiar) includes all equipment that is nonelectronic in nature and may be powered or nonpowered. Examples of powered equipment are: mobile electric power plants, gas turbine powered service equipment, aircraft tow tractors, and hydraulic service units. Examples of nonpowered equipment are aircraft jacks, aircraft tow bars, aircraft slings, maintenance work stands, special fittings and fixtures.

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NON-DESTRUCTIVE INSPECTION - Methods that may be applied to a structure or component to determine its integrity, composition, physical, electrical, thermal properties, or dimensions without causing a change in any of these characteristics.

NON-DESTRUCTIVE TESTING AND INSPECTION (NDT/I) - The technologies (methods) for determining characteristics about the physical condition of a part of material, without permanently changing it. NDI is the application of nondestructive testing to the inspection of parts, structure, and material to determine condition/ serviceability. Typical defects and conditions to be detected are those not detectable visually, like fatigue and stress corrosion cracks, inclusions, porosity, delaminations, disbonds, enclosed FOD, etc. The most frequently used nondestructive testing methods are Dye Penetrant, Magnetic Particle, Eddy Current, Ultrasonics and X-Radiography. Methods used less frequently in the aircraft industry include thermal imaging, gamma and neutron radiography, and acoustic emission.

NOT MISSION CAPABLE - Material condition of an aircraft that is not capable of performing any of its missions. NMC is subdivided into NMCM and NMCS. NMC Hours = EIS Hours - MC Hours.

NOT MISSION CAPABLE DEPOT (NMCD) - The material condition of an aircraft that is not capable of performing any of its missions because of standard or special rework, including SDLM, PDM, IMC/P, MCI, MOD, ISR, or similar depot evolution. NMCD SCIR time starts when the D-level action is initiated and ends when PMI or other D-level action is completed.

NOT MISSION CAPABLE MAINTENANCE (NMCM) - The material condition of an aircraft that is not capable of performing any of its missions because of maintenance requirements. Start NMCM time when the condition is discovered except when the discovery is made in flight. In flight malfunction NMCM time starts at the termination of flight. Stop NMCM when maintenance is completed or interrupted by a supply shortage. Report work stoppage resulting from parts nonavailability as NMCS. NMCM time resumes when required supply item(s) are delivered to the maintenance activity. NMCM is further defined as NMCM scheduled (S) and NMCM unscheduled (U). NMCM Hours = NMC Hours - NMCS Hours.

NOT MISSION CAPABLE MAINTENANCE SCHEDULED (NMCMS) - The sum of equipment maintenance hours documented for scheduled engine inspections, special inspections, phase/calendar inspections and conditional inspections. An aircraft will be considered NMCMS if panels and equipment removed to conduct area inspections cannot be replaced within 2 hours or if the aircraft has been utilized to the maximum allowable operating limit prior to the scheduled maintenance requirement, for example, +10 percent, +3 days. NMCMS Hours = NMCM Hours - NMCMU Hours.

NOT MISSION CAPABLE MAINTENANCE UNSCHEDULED (NMCMU) - The sum of maintenance not defined as scheduled maintenance, occurring during the interval between scheduled downtime maintenance periods. NMCMU Hours = NMCM Hours - NMCMS Hours.

NOT MISSION CAPABLE SUPPLY (NMCS) - The material condition of an aircraft that is not capable of performing any of its missions because maintenance required to correct the discrepancy cannot continue due to

a supply shortage. Start NMCS time when a supply demand has been made for an item(s) required to continue maintenance. Stop NMCS time at the time the material is delivered to the designated delivery point or change of EOC code. NMCS Hours = NMC Hours - NMCM Hours.

NOTE - Additional information inserted to address items requiring further clarity or to reinforce specific safety concerns. Notes are not required and shall only be listed when applicable.

NOTICES - Directives of a one-time nature or those applicable for a brief period of time. Each notice contains provisions for its own cancellation. Notices employ a subject classification numbering system and are part of the Navy directive system.

O

OFF-EQUIPMENT WORK - For the purpose of MDR, it includes all maintenance actions performed on removed, repairable components, usually at the IMA.

OFF-TRACK - Any NAMP Program or process that presents an immediate safety hazard, significantly impacts the ability of the maintenance department to support operational requirements, or has significant discrepancies that render the program or process ineffective as determined by the team officer.

**NOTE**

**NAMP programs evaluated to be Off-Track will require a follow-up inspection by the cognizant Type Wing/MAW within 90 days. A copy of this follow-up inspection shall be provided to TYCOM, Code (N422C1), within 15 days of completion.**

ON-CONDITION TASK - A scheduled inspection to determine that equipment is and will remain in satisfactory condition until the next scheduled inspection.

ON-EQUIPMENT WORK - For the purpose of MDR, it includes those maintenance actions accomplished on complete end items, for example, aircraft, drones, SE, and removed engines.

ON-SITE - Aircraft is located at other than FRCs or commercial rework activity's site.

ON THE JOB TRAINING - Training at the squadron or other local activity level in the performance of a task or duty during operational or maintenance situations.

ON-TRACK - Any NAMP program that is in compliance with governing directive.

OOMA ELECTRONIC REPOSITORY - Refers to the office at which the NTCSS Optimized OMA NALCOMIS Wholesale Foundation Tier resides.

OPERATING AIRCRAFT - An aircraft filling an authorized operating allowance. An aircraft reported in any of the A-status codes is in an operating status. Operating status aircraft are always in the reporting

custody of the operating unit to which assigned. An aircraft that moves to a rework facility for purposes of rework will leave operating status and remain in the reporting custody of the operating unit unless FS status is requested and granted by OPNAV. Operating aircraft are in material condition reporting status.

OPERATING COMMAND- A controlling custodian of naval aircraft, except COMNAVAIRSYSCOM FS. Also called air or major operating command.

OPERATING FORCES - Those forces whose primary missions are to participate in combat and the integral supporting elements.

OPERATING LEVEL OF SUPPLY - The quantities of material required to sustain operations in the interval between requisitioning and the arrival of successive shipments. These quantities should be based on the established replenishment period (monthly or quarterly).

OPERATING SERVICE AGE - The number of operating service months an aircraft has completed.

OPERATING UNIT - Squadrons and units with an operating allowance. Squadrons and units may be further subdivided into detachments. To be an operating unit, a unit must have a mission that requires flight operations (other than ferry or flight test) by Navy aircraft.

OPERATIONAL CHARACTERISTICS - The characteristics that pertain primarily to the functions to be performed by the equipment, either alone or in conjunction with other equipment; for example, for electronic equipment, operational characteristics include such items as the frequency coverage, channeling, type of modulation, and character of emission.

OPERATIONAL EVALUATION - The test and analysis of a specific end item or system, in so far as practical under service operating conditions, to determine if quantity production is warranted. It is based on increase in military effectiveness to be gained and its effectiveness as compared with currently available items or systems, with consideration given to personnel capabilities to maintain and operate the equipment; size, weight, and location; and enemy capabilities in the field.

OPERATIONAL NECESSITY - A mission associated with war or peacetime operations in which the consequences of an action justify accepting the risk of loss of aircraft and crew.

OPERATIONAL RISK MANAGEMENT - A systematic, decision making process used to identify and manage hazards that endanger naval resources.

OPERATIONAL SUPPORT INVENTORY - The range and depth of material required to support a planned aircraft program at a given site, consists of a fixed allowance for FLRs, DLRs, and an operating level of stock for consumables.

OPTIMIZED OMA NALCOMIS WHOLESAL FOUNDATION TIER (NTCSS) - A storage data base located at COMNAVAIRSYSCOM, NAS Patuxent River for CM ALS records of aircraft or tracked assets that have been stricken from the

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naval inventory; or to which the actual aircraft or tracked assets are in the custody of a non-NTCSS Optimized OMA NALCOMIS activity.

ORDNANCE HANDLING VEHICLE - Those vehicles which have been approved for over-the-road transport and handling of ammunition and explosive ordnance. Examples of such equipment include trucks, trailers, transporters, and bomb service trucks. The vehicles are a category of logistics SE.

ORGANIC - Aircraft, weapon systems, and processes unique to naval aviation.

ORGANIZATION CODE - A structured three-character alphanumeric code that identifies activities within a major command.

ORGANIZATIONAL LEVEL MAINTENANCE - Maintenance which is the responsibility of, and performed by, a using organization on its assigned equipment. Its phases normally consist of inspecting, servicing, lubricating, adjusting, and replacing parts, minor assemblies, and subassemblies.

OVERHAUL - The process of disassembly sufficient to inspect all the operating components and the basic end article. It includes the repair, replacement, or servicing as necessary, followed by the reassembly and bench check or flight test. Upon completion of the overhaul process, the component or end article will be capable of performing its intended service life or service tour.

**P**

PACKAGING - An all-inclusive term covering cleaning, preserving, packaging, packing, and marking required to protect items during every phase of shipment, handling, and storage.

PAINT AND CORROSION EVALUATION - An on-condition inspection developed to address special requirements of F/A-18 series aircraft occurs at the end of a set operational service period, within a 9 month window. Details of program administration are in OPNAVINST 3110.11. Evaluation specifics are in a Local Engineering Specification from FRCSW North Island. The evaluation is performed by D-level P&E personnel and is requested for P&E services. The results of PACE determine the requirement for induction into Modification, Corrosion and Paint Program, which is done by D-level artisans. Documentation required of the aircraft custodian is essentially equivalent to aircraft administered by ASPA.

PARTIAL MISSION CAPABLE (PMC) - Material condition of an aircraft that can perform at least one but not all of its missions. PMC is subdivided into PMCM and PMCS. PMC Hours = MC Hours - FMC Hours.

PARTIAL MISSION CAPABLE MAINTENANCE (PMCM) - The material condition of an aircraft that can perform at least one but not all of its missions because of maintenance requirements existing on the inoperable subsystem(s). Start PMCM time when the condition is discovered, except when the discovery is made in flight. In flight malfunction PMCM time starts at the termination of flight. Stop PMCM time when maintenance is completed or interrupted by a supply shortage. Report work stoppage

resulting from parts nonavailability as PMCS. PMCM time resumes when required supply item(s) are delivered to the maintenance activity. PMCM Hours = PMC Hours - PMCS Hours.

PARTIAL MISSION CAPABLE SUPPLY (PMCS) - Material condition of an aircraft that can perform at least one but not all of its missions because maintenance required to correct the discrepancy cannot continue because of a supply shortage. Start PMCS time when a supply demand has been made for an item required to continue maintenance. Stop PMCS time at the time the material is delivered to the designated delivery point or change of EOC code. PMCS Hours = PMC Hours - PMCM Hours.

PARTICIPATING SERVICE - The military service that uses a multipurpose aeronautical system and obtains support for it from the executive service.

PARTS LIFE TRACKING SYSTEM - An automated system used for tracking the composition, location, and operating time/cycle counts or life usage indexes of aircraft engines, propulsion systems, modules, and life limited components. PLTS is used to develop long range schedules for inspections, removals, replacements, procurements, and rework schedules for these components, based on usage requirements and fixed or variable usage rates. It provides important support to the RCM Program.

PERFORMANCE STANDARD - The performance standard(s) will be based on the Task and Requirement statements. Performance standards must be specific, measurable, achievable, repeatable, and time-constrained. Performance standards shall include, at a minimum, whether the Task will be accomplished either with supervision, with assistance, or without supervision (See definitions for WITH SUPERVISION, WITH ASSISTANCE, and WITHOUT SUPERVISION).

PERIODIC MAINTENANCE INFORMATION CARD - The PMS publication that contains the component/assembly removal/replacement schedule, airframe structural life limits, and a maintenance requirements systems index. It also contains a conditional inspection listing and a phase change implementation card (included as required).

PERSONAL COMPUTER MAINTENANCE TRAINING IMPROVEMENT PROGRAM - The hardware and software used for the administration of MTIP on a personal computer.

PERSONNEL QUALIFICATION DESIGNATION - Designation after completing PQS.

PERSONNEL QUALIFICATION STANDARDS - Documents which describe the knowledge and skills trainees must have to correctly perform their duties. The policy and procedures for PQS are outlined in OPNAVINST 3500.34.

PERSONNEL REQUIREMENTS - Those requirements for personnel derived from a maintenance task that must be performed.

PERSONNEL UTILIZATION - The actual reporting of accomplishments by personnel assigned.

PHASED DEPOT MAINTENANCE - PDM replaces ASPA/SDLM for a specific T/M/S aircraft. PDM divides a larger SDLM specification/work package into

smaller, and more frequent, phases for Depot scheduling and completion to decrease periods of aircraft unavailability.

PHYSICAL CUSTODY - Actual possession of the aircraft or SE for a definite purpose. This does not necessarily imply reporting custody.

PLAN OF ACTION AND MILESTONES - A document that identifies actions or tasks in the specific order needed to accomplish an objective. This document assigns to each action, the office responsible, and the start and completion date for each action.

PLANNED MAINTENANCE INTERVAL - Period of time for execution of an IMC/P or PDM scheduled maintenance event. Can include O-, I-, and D-level maintenance actions.

PLANNED OPERATIONAL INTERVAL - Period of time planned for operational use when the aircraft is under IMC/P or PDM. POI follows a PMI and will vary in length based on actual maintenance completion. Predetermined end date is the next FID, or at the end of the tour, the PED.

POOL - A grouping of repairable assemblies provided a rework activity as replacements for similar defective repairable assemblies removed from an aircraft or engine undergoing some phase of rework that are not to be reworked concurrently with the aircraft or engine from which removed. These items are provided to prevent disruption of production schedules because the lead time to obtain the required replacement item from supply and the turnaround time of the aircraft/engine are not compatible.

PRECISION MEASURING EQUIPMENT (PME)- Devices used to measure, gauge, test, inspect, diagnose, or examine material, supplies, and equipment to determine compliance with requirements established in technical documents, for example, research, development, test, and evaluation documents, specifications, engineering drawings, technical orders, technical manuals, maintenance instructions, and serviceability standards.

PRE-EXPENDED BIN (PEB) - Container that contains only low cost, high usage items. It is replenished from stock in the retail outlet that supports the shop in which the PEB is located.

PREREQUISITE - Those tasks by training code within the MOS-specific chapter of the T&R that must be completed prior to beginning the identified task(s).

PRESERVATION - The protection of aviation assets (aircraft, SE and mobile facilities) from material degradation during periods of inactivity, storage, or shipment.

PREVENTIVE MAINTENANCE - The care and servicing needed to maintain aircraft equipment, SE, and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects.

PRIMARY MISSION - For the purpose of maintenance data reporting, the primary purpose for which the aircraft is assigned to the unit (reporting custodian).

PROCUREMENT - The process of obtaining personnel, services, supplies, and equipment.

PROCUREMENT LEAD TIME - The interval, in months, between the initiation of procurement action and receipt into the supply system of the production model, excluding prototypes, purchased as the result of such actions. It is composed of two elements, production lead time and administrative lead time.

PRODUCTION AIRCRAFT - New aircraft accepted from the contractor by the Navy. They include all Navy aircraft procured for operational or training purposes, that is, all aircraft except those procured solely for experimental purposes. Every Navy aircraft is either experimental or production.

PRODUCTION CONTROL - The functional organization within the IMA responsible for workload control.

PRODUCTION DIVISION - Any division in the IMA responsible for a specific production workload, for example, avionics, power plants.

PRODUCTION EQUIVALENT - An approved configuration change to the product baseline incorporated by the manufacturer during production. The configuration change must have been approved for retrofit on in-service equipment via a TD.

PROGRAM - A plan or system under which action may be taken toward a stated goal or objective. A program is generally considered to have some or all of the following elements: (1) a program manager, (2) a formalized governing directive, (3) designated funding, (4) standardized procedures, and (5) specialized training.

PROGRAM MANAGER - Individual assigned by a Maintenance Officer to control and perform the required duties of a NAMPSOP or NONNAMSOP Program within a unit.

PROGRAM MONITOR - Individual assigned by a Quality Assurance Officer to oversee a NAMPSOP or NONNAMSOP Program within a unit.

PROGRAM OF INSTRUCTION (POI) - A logical grouping of MOS specific aircraft maintenance T&R tasks.

PROGRAM OF INSTRUCTION (BASIC) - Minimum POI required by all maintenance MOS personnel that is comprised of MOS required OJT and NAMP Tasks associated with a specific T/M/S.

PROGRAM OF INSTRUCTION (CONVERSION) - Designed for personnel converting from a particular series of aircraft to a new series that has different aircraft maintenance training requirements in one or more MOSs. Individuals may be assigned to either the Basic or Series Conversion POI at the discretion of the SMEs in the specific T&R (see paragraph 2.5.1. of this manual).

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PROGRAM OF INSTRUCTION (REFRESHER) - Designed at the Subsystem level and applies to two types of individuals: (1) Individuals that have progressed through the B, T, or C POIs to attain SSSP in a given (or multiple) Subsystem(s) by completing all required Subsystem Skill Tasks (2000-4000 level only) and NAMP Tasks (appropriate to billet). (2) Individuals who attained SSSP in a given Subsystem and execute orders to a non-MOS billet of the unit, and then return to the work center to work in the same MOS.

PROGRAM OF INSTRUCTION (TRANSITION) - Designed to provide individuals who are transitioning from one aircraft type (Rotary to Fixed Wing, Fixed Wing to Tilt-rotor, etc.) to another. Personnel selected for Transition to another Type shall be assigned to either the Basic or Transition POI.

PROGRAM OPERATING ALLOWANCE - The number of aircraft allowed a unit for flight operations related to the unit mission.

PROGRAM SERVICE LIFE - The sum of operating service period plus non-aging or non-operating time, approximates but does not set service life limit and is used for planning, programming, and budgeting purposes.

## Q

QUALIFICATION (QUAL) - A level of knowledge assigned to personnel based on demonstration of proficiency in a specific skill. Specific criteria to achieve qualifications shall be delineated in individual T&R manuals. Upon successful completion of qualification criteria, an approving authority shall issue an appropriate qualification letter. Individuals may lose a qualification due to a loss of proficiency in a specific task as delineated in T&R syllabi. Re-qualification requires demonstration of proficiency. Specific re-qualification criteria shall be prescribed in individual T&R manuals.

QUALITY ASSURANCE - A planned and systematic pattern of all the actions necessary to provide adequate confidence that the item or product conforms to established technical requirements.

QUALITY ASSURANCE REPRESENTATIVE - Inspector assigned to the Quality Assurance Division.

QUALITY AUDIT - A selective comparison of actual workmanship with a given set of standards or objectives.

QUALITY DEFICIENCY REPORT - Used to report deficiencies in new or newly reworked material which may indicate nonconformance with contractual or specification requirements or substandard workmanship. Failures must have occurred at zero operating time, during initial installation, operation, test, check, turn-up, or first flight. This includes premature failure of items within an identified warranty period or specified level of performance.

## R

RADIOGRAPHIC - A method that uses X-rays or similar radiation for the purpose of penetrating or being scattered by substances to reveal flaws or defects in the part or structure being examined.

RAPID ACTION CHANGE - Issued by naval activities or Contract Administrative Offices as a change to provide urgent technical manual change data.

READY BASIC AIRCRAFT (RBA) - RFT is not a specific aircraft configuration. RFT is a calculation resulting from combining Ready Basic Aircraft (RBA) and specific configurations of mission systems. RFT sets are defined as sets of equipment that are a combination of the ready airframe and mission systems.

READY BASIC MISSION (RBM) SETS - Common mission systems that are required to support training or employment of a majority of core/mission skills in execution of all Mission Essential Tasks for each T/M/S.

READY FOR ISSUE MATERIAL - Material, equipment, aircraft, and SE which does not require rework of any type, replacement of overage parts, or other than routine preinstallation and post installation condition verification prior to use. RFI items are not necessarily new or like new, but are functionally reliable and meet applicable performance specifications. Packaging and preservation do not enter into the process of producing an RFI item but are required in order to maintain the item identity and condition and to prevent damage during subsequent shipping, handling, and storage.

READY FOR TASKING (RFT) AIRCRAFT - A Mission Capable Aircraft that is functional check flight (FCF) complete, capable of day or night Instrument Meteorological Conditions (IMC) field operations, and has the necessary operational communication, Identification, Friend or Foe (IFF), navigation, flight and safety systems required by applicable NATOPS and FAA regulations.

READY MISSION ESSENTIAL TASK (MET) SETS - Those systems, not already captured as RBA or RBM, that are required to support training or employment of a particular core/mission skill in execution of unit METs.

RE-DEMONSTRATE INTERVAL - A set time-frame in which individuals are required to perform a task(s) to remain proficient. Most Task(s) will not have this requirement due to the nature of the MOS requirement. Expressed in terms of days, with an asterisks (\*) for those task(s) that do not require repetition.

REFERENCE - A publication, order, manual, or website used to assist with accomplishing a given task.

REFRESHER (R) - See PROGRAM OF INSTRUCTION (REFRESHER)

REPAIRABLE ITEM - A durable item which, when unserviceable, can be economically restored to a serviceable condition through regular repair procedures.

REPLACEMENT ITEM - An item, functionally interchangeable with another item, but differs physically from the original in that the installation of the replacement requires operations such as drilling, reaming,

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cutting, filming, or shimming, in addition to the normal application and methods of attachment.

REPORTING CUSTODIAN. - An organizational unit of the lowest echelon of command accepting responsibility, involving the accountability to the CNO, for aircraft or engines, as designated either by CNO or by the ACC. See OPNAVINST 5442.2 for additional information concerning aircraft custody or custodian policy.

**NOTE**

**Each aircraft or engine at any given time from acceptance to strike is in the reporting custody of one, and only one, reporting custodian.**

REQUIREMENT - An optional entry within Task breakdowns. A Requirement shall be used when SMEs determine that the Task and Performance Standard, by themselves, are not sufficient to describe the intended result of the Task. Although a Requirement statement may be used at any performance level, it will generally have application in the 4000 level OJT Tasks, evaluated Tasks, and knowledge based Tasks (NAMP).

REVISION - Changes to a TD that supersedes the basic TD including all previously issued amendments and revisions to them.

REVOCATION - The complete removal of System Skill Proficient/Subsystem Skill Proficient status from an individual.

**S**

SAFE FOR FLIGHT - The material condition of an aircraft which, considering mission requirements and environmental conditions, permits it to be launched, flown and landed safely and ensures the aircrew has, as a minimum, the operable equipment for safe flight required by: NAVAIR 01 Series Manual, Aircraft NATOPS; OPNAVINST 3710.7, General NATOPS; and OPNAVINST 5442.4, Subsystem Capability and Impact Reporting (Safely Flyable Column).

SAFE FOR FLIGHT CERTIFICATION - The decision process performed by authorized and designated personnel that certifies all W&B requirements have been satisfied, all applicable MRCs have been complied with (or a deviation has been attained from the appropriate authorities), all previously known discrepancies that precluded safe flight have been corrected, and all known discrepancies (evaluated separately and collectively) do not preclude safe flight.

SAMPLE - One or more units of product drawn from a lot or batch selected at random without regard to their quality. The number of units of product in the sample is the sample size.

SCHEDULED MAINTENANCE - Periodic prescribed inspection/servicing of equipment done on a calendar, mileage, or hours of operation basis.

SCHEDULED REMOVAL COMPONENT - An assembly with an operating limitation that is normally replaced at the scheduled inspection which falls nearest to the applicable limitation.

**SERVICE LIFE** - The time period during which the item can be maintained in service without replacement. Each program aircraft, from acceptance to strike, follows a life cycle consisting of alternate periods of operating and rework time as prescribed for each model by OPNAVINST 3110.11. Aircraft become eligible for strike upon completion of the life cycle specified for the model.

**SERVICE LIFE EXTENSION PROGRAM** - One element of Conversion in Lieu of Procurement. The restoration/replacement of a primary aircraft structure which has reached its life limit.

**SERVICE PERIOD** - For aircraft not under IMC/P, a prescribed segment of the service life of aircraft subject to the SDLM process, such as a stated number of calendar months or accumulated flight hours that an aircraft is in the physical custody of an operating activity for use prior to SDLM or retirement. The number and length of standard service periods, together with associated planning factors and policies, are set forth in OPNAVINST 3110.11.

**SERVICEABLE** - The condition of an end item in which all requirements for repair, bench check, overhaul, or modification (as applicable) have been accomplished making it capable of performing the function or requirements for which originally designed. The fact that signs of previous use are apparent does not necessarily mean it is unserviceable. When appearance is not a primary consideration, and the condition of the item meets all safety and performance requirements, it will be processed as serviceable.

**SERVICING** - The replenishment of consumables needed to keep an item in operating condition, but not including any other preventive maintenance.

**SHALL** - Indicates policy adherence is mandatory.

**SHOULD** - Indicates policy guidance is recommended but not mandatory.

**SIGN-OFF AUTHORITY** - Defined as a billet/designation that holds a minimum level of expertise and/or proficiency to satisfactorily evaluate the performance of an individual to accomplish a task or requirement. Multiple billets/designations may hold the minimum requirement to act as the Sign-Off Authority and all shall be listed in the Task Sign-off Authority block of all Task breakdowns (see Fig 5-05 and 5-06 of this manual). (See also EVALUATED TASK)

**SOURCE CODE** - Code assigned to support items (spares, repair parts, components, parts, kits, special tools, test equipment, and SE), to indicate the manner of acquiring items for the maintenance, repair, or overhaul of end items.

**SOURCE, MAINTENANCE, AND RECOVERABILITY (CODE)** - A collective code assigned to items during the provisioning, source coding, or selection process to convey specific information to maintenance and supply personnel. The SM&R code consists of three parts; a source code, a maintenance code, and a recoverability code.

**STANDARDIZATION** - The process by which the DoD achieves the closest practicable cooperation among the services and agencies for the most efficient use of research, development, and production resources and

agrees to adopt on the broadest possible basis the use of: (1) common or compatible operational administrative and logistic procedures; (2) common or compatible technical procedures and criteria; (3) common, compatible, or interchangeable supplies, components, weapons or equipment; and (4) common or compatible tactical doctrine with corresponding organizational compatibility.

**SUBASSEMBLY** - Two or more parts that form a portion of an assembly or a unit, replaceable as a whole, but having a part or parts that are individually replaceable.

**SUBSYSTEM** - Secondary or subordinate portion of a system that is required for an individual to obtain knowledge, skill, and proficiency within a particular system. A subsystem may be broken down into tasks.

**SUBSYSTEM CAPABILITY IMPACT REPORTING** - The total number of discrepancy hours limiting the equipment from performing its assigned primary mission/function.

**SUBSYSTEM SKILL PROFICIENT (SSSP)** - A level/designator given to those individuals who attain proficiency and remain proficient in all OJT and NAMP tasks within a single subsystem.

**SUPPLIES** - All items necessary for the equipment, maintenance and operation of a military command.

**SUPPLY** - The procurement, distribution, maintenance while in storage, and salvage of supplies, includes determination of the kind and quantity of supplies.

**SUPPORT EQUIPMENT** - IMRL and non-IMRL equipment required to make an aeronautical system, command and control system, support system, subsystem, or end item of equipment (SE for SE) operational in its intended environment. This includes all equipment required to launch, arrest (except Navy shipboard and shore based launching and arresting equipment), guide, control, direct, inspect, test, adjust, calibrate, gauge, measure, assemble, disassemble, handle, transport, safeguard, store, actuate, service, repair, overhaul, maintain; or operate the system, subsystem, end item, or component.

**NOTE**

The following equipment is excluded from the definition of SE: Powered and nonpowered hand tools; housekeeping items; office furniture and equipment common to all activities defined in applicable allowance lists that are required as indirect support; items used only by the contractor; and personal equipment, such as head sets and microphones.

**SUPPORT EQUIPMENT LICENSE** - Qualification that allows an individual to operate a piece of support equipment. Possession of critical SE licenses is required for individuals to perform their jobs efficiently. Specific SE licenses may be required prior to attaining SSSP, SSP, Maintenance Leadership Qualifications or Designations, or other specific QDs in their particular Maintenance division.

**SUPPORT EQUIPMENT RESOURCES MANAGEMENT INFORMATION SYSTEM** - The replacement system for the Application Data for Material Readiness List.

A collection of technical and cataloging data identifying SE end items required for O-level, I-level, and D-level aircraft maintenance. SERMIS provides the SECA with on-line visibility of source, allowance, inventory, and rework data to aid in inventory control.

SUSPENSION - The temporary removal of Qualification, Certification, Designation, System Skill Proficient/Subsystem Skill Proficient status from an individual for a period of time.

SYLLABUS SPONSOR - A unit that coordinates T&R changes/revisions on behalf of the applicable community in coordination with CG TECOM ATB.

SYSTEM - Major portion of aircraft equipment or programs upon which knowledge, skill and proficiency are required in order to meet a unit's mission. A System may be broken down into subsystems and tasks.

SYSTEM SKILL PROFICIENT (SSP) - A level/designator given to those individuals who attain proficiency and remain proficient in all subsystem T&R OJT tasks within a given system.

SYSTEMS APPROACH TO TRAINING (SAT) - A dynamic, flexible system for developing and implementing effective and efficient instruction to meet current and projected needs. The SAT process is flexible in that it accounts for individual differences in ability, rate of learning, motivation, and achievement to capitalize on the opportunity for increasing the effectiveness and efficiency of instruction.

SUBSYSTEM SKILL PROFICIENT (SSSP) - A level/designator given to those individuals who attain proficiency and remain proficient in all T&R OJT tasks within a given subsystem.

## T

TABLE OF ORGANIZATION (T/O) - A table depicting the Marine Corps organizational manpower requirements in terms of grade and military occupational specialty.

TASK - Specific action(s) required for an individual to perform in order to obtain knowledge, skill, and proficiency on a particular subsystem.

TASK SIGN-OFF AUTHORITY - An individual who holds a billet/designation with a minimum level of expertise and/or proficiency in a task to satisfactorily evaluate the performance of another individual's ability to accomplish a task.

TECHNICAL DIRECTIVE (TD) - A document authorized and issued by COMNAVAIRSYSCOM to provide technical information necessary to properly and systematically inspect or alter the configuration of aircraft, engines, systems, or equipment subsequent to establishment of each respective baseline configuration. TDs include all types of changes and bulletins and consist of information that cannot be disseminated satisfactorily by revisions to technical manuals. NATEC controls assignment of TD numbers.

TECHNICAL DIRECTIVE CHANGE (TD CHANGE) - A document which directs and provides instruction for the accomplishment of a change, modification,

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repositioning, or alteration of material in in-service aircraft, weapon systems, assemblies, subassemblies, components, or SE. See TD.

TECHNICAL DIRECTIVE CODE (TD CODE) - A two-character numeric code that identifies the type of TDs.

TECHNICAL DIRECTIVE IDENTIFICATION CODE - A 12- or 13-character alphanumeric code used to identify a specific TD.

TECHNICAL DIRECTIVE STATUS CODE - A one-character alphabetic code used to indicate the status of compliance with a TD.

TECHNICAL MANUAL - A publication containing a description of equipment, weapons, or weapon system(s) with instructions for effective use. Included are one or more of the following sections: instructions covering initial preparation for use, operational instructions, modification instructions, maintenance instructions, parts lists or parts breakdown, and related technical information or procedures, exclusive of those of an administrative nature.

TECHNICAL PUBLICATIONS DEFICIENCY REPORT (TPDR) - Provide a simplified procedure for reporting technical publication safety hazards and routine deficiencies found in COMNAVAIRSYSCOM technical publications.

TEST - Subjecting an aircraft, airframe, engine, accessory, or item of equipage to prescribed conditions to determine if it will function per predetermined requirements.

TEST, MEASUREMENT, AND DIAGNOSTIC EQUIPMENT - Devices used to measure, gauge, test, inspect, diagnose, or examine material, supplies, and equipment to determine compliance with requirements established in technical documents, for example, research, development, test, and evaluation documents, specifications, engineering drawings, technical orders, technical manuals, maintenance instructions, and serviceability standards.

TOOL CONTROL MANUAL - Contains information that includes material requirements, tool inventories, and detailed instructions for the implementation and operation of the Tool Control Program for a specific type/model aircraft.

TRAINING AIDS - Any item developed/procured with the primary intent that it shall assist in training and the process of learning.

TRAINING PROGRESSION MODEL - A tool used to develop training plans that provides a clear progression of qualifications with an emphasis on "combat capable" and "combat ready" personnel.

TRAINING TASK CODE - A three- to four-letter subsystem abbreviation and four-digit numeric identifier. The first digit of a numeric identifier shall begin with the appropriate System Skill level number.

TRANSACTION CODE - A two-character numeric code used to denote the type of data being reported, and to indicate the record

TRANSFER - The act of conveying the reporting/controlling custody of an aircraft/SE to another custodian.

TRANSITION (T) - See PROGRAM OF INSTRUCTION (TRANSITION).

TYPE EQUIPMENT CODE - A 4-character code used to identify the complete end item or category of equipment being worked on, for example, aircraft, engine, or SE. A complete listing of TECs may be found in the Aviation Type Equipment Code List (A7210-01) (available on the internet at [www.nalda.navy.mil](http://www.nalda.navy.mil)).

TYPE MAINTENANCE CODE - A one-character numeric or alphabetic code that identifies the type of maintenance performed.

## U

ULTRASONIC - A method that uses ultrasonic energy to inspect parts of structures for defects, thickness variations, corrosion, etc. The reflection of ultrasonic energy is observed to determine discontinuities or measure thickness. This method can be applied to metallic or nonmetallic materials. See NDI.

UNIT TRAINING MANAGEMENT (UTM) - The application of the Marine Corps Training Principles and the Systems Approach to Training to satisfy the training requirements of Commanders at all levels in order to accomplish wartime missions.

UNSCHEDULED MAINTENANCE - Maintenance, other than the fix phase of scheduled maintenance, occurring during the interval between scheduled downtime maintenance periods.

## V

VIBRATION ANALYSIS - The technology used to detect, quantify, and eliminate defects in airframes, engines, and dynamic components for fixed and rotary wing aircraft. Application may be in troubleshooting, scheduled maintenance, or following specified condition-based maintenance.

VISUAL INFORMATION DISPLAY SYSTEM/MAINTENANCE ACTION FORM (VIDS/MAF) - A multi-purpose document used in the Maintenance Data System (MDS) and VIDS.

VISUAL OR OPTICAL INSPECTION - An inspection performed by the human eye with such aids as microscopes and bore-scopes.

## W

WEAPONS HANDLING EQUIPMENT - A category of WSE which provides direct support to the weapons item. This equipment includes both peculiar and common ordnance handling and transportation equipment, as well as tools used for canning/decanning, magazine handling, and assembly of weapons/ordnance related items. Examples of this equipment include hoisting beams, weapons carriers, strongbacks, handlift trucks, handling bands, magazine lifting slings, weapons skids, trailers, bomb trucks (non-self-powered) and their associated tools, gauges, jigs, alignment bars, bomb assembly tables, maintenance stands, and other weapons related equipment. This equipment supports both air and surface launched weapons.

WEAPON SYSTEM - A weapon and those components/parts required for its operation. (The term is not precise unless specific parameters are established.)

WEAPONS REPLACEABLE ASSEMBLY - A generic term, includes all the replaceable packages of an avionic equipment, pod, or system as installed in an aircraft weapon system, with the exception of cables, mounts, and fuse boxes or circuit breakers.

WEAPONS SUPPORT EQUIPMENT - A category of SE where the principal function is support of the explosive ordnance component or weapon is used primarily by the Weapons Department. This equipment may be defined further as being related to air-launched, surface, or subsurface fired weapons. Air-launched related equipment includes both mechanically/electrically operated handling equipment and electronic test equipment, defined as WHE and weapons test equipment, respectively.

WEAPONS TEST EQUIPMENT - Specialized equipment of an electrical or electronic design used to test, maintain, or service aircraft weapons, bombs, rockets, missiles, special weapons, torpedoes mines, or any other explosive ordnance. This equipment is a category of WSE.

WELDING/BRAZING - A process used to join metals by the application of heat. Fusion welding includes, but is not limited to, oxy-fuel welding, shielded metal arc welding, gas tungsten arc welding, gas metal arc welding, plasma arc welding, and electron beam welding.

WHEN DISCOVERED CODE - A one-character alphabetic code that identifies when the need for maintenance was discovered.

WITH ASSISTANCE - Denotes the approved level of assistance allowable during the performance of an OJT Task, as listed in the Performance Standard of a Task breakdown. With Assistance allows assistance from one or more individuals when a task requiring more than one individual, but not necessarily requiring an associated or particular skill set (i.e., when communication checks are performed between aircrafts) is being accomplished. The additional personnel will not be required to show proficiency.

WITH SUPERVISION - Denotes the approved level of supervision allowable during the performance of an OJT Task, as listed in the Performance Standard of a Task breakdown. The task may be performed with the aid of an individual who has previously completed the same subsystem task, without regards to rank. Supervision is defined as guiding, introducing, demonstrating, or discussing related topics in order to aid in the completion of the task. The supervision on a particular task does not equate to sign-off authority.

WITHOUT SUPERVISION - Denotes the approved level of supervision allowable during the performance of an OJT Task, as listed in the Performance Standard of a Task breakdown. The task shall be performed without physical or verbal aid of any type. Aid is defined as facilitating the completion of the task or guiding the maintainer in any manner (i.e. pointing out or highlighting any discrepancies other than those related to safety).

WORK CENTER - A designated functional area to which maintenance personnel are assigned.

WORK CENTER SUPERVISOR - The person assigned the responsibility of maintenance management within a given work center.

WORK UNIT CODE - A numeric or alpha/numeric code that identifies a system, subsystem, set, major component, repairable subassembly, or part of an end item being worked on. WUCs are assigned and controlled by the NATEC under the direction of COMNAVAIRSYSCOM. WUCs are published in WUC manuals for end items in three major categories: (1) T/M/S for aircraft, drones, and missiles; (2) aircraft flight/tactical trainers; and (3) aeronautical SE. The first two positions of the WUC identify the system within the aircraft/equipment on which work is being performed. A five (or greater where available) character WUC is normally used in recording on equipment maintenance work to identify discrepancies discovered to the greatest detail possible. The number 9 is used to indicate "NOC". The NOC category is not intended as a catch-all code but rather as a code under which occasional discrepancies, for example, nonrecurring, and work on non-coded repairable items may be reported. Refer to applicable aircraft/equipment WUC manuals for complete breakdown. A unified numbering system code may be used in place of the WUC and may be either be numeric or alpha/numeric.

X

Y

Z

APPENDIX B  
LIST OF ACRONYMS

**A**

A/R - ARRESTS/RECOVERY ASSIST  
AADB - AUTOMATED AIRCRAFT DISCREPANCY BOOK  
AAE - AIRCRAFT ARMAMENT EQUIPMENT  
ABDR - AIRCRAFT BATTLE DAMAGE REPAIR  
ABO - AVIATORS BREATHING OXYGEN  
ACC - AIRCRAFT CONTROLLING CUSTODIAN  
ACE - AIR COMBAT ELEMENT  
ACO - ADMINISTRATIVE CONTRACTING OFFICER  
ACP - ASSETS CAPITALIZATION PROGRAM ACQUISITION  
AD - AVIATION MACHINIST'S MATE/AIR WORTHINESS DIRECTIVE  
ADB - AIRCRAFT DISCREPANCY BOOK  
AE - AVIATION ELECTRICIAN'S MATE  
AEF - AERONAUTICAL EXPEDITIONARY AIRFIELD  
AEL - ALLOWANCE EQUIPAGE LIST  
AEP - ARMAMENT EQUIPMENT POOL  
AFB - AIRFRAME BULLETIN  
AFC - AIRFRAME CHANGE  
AFH - AIRCRAFT FLIGHT HOURS  
AFM - AVIATION FLEET MAINTENANCE  
AIDR - ACCEPTANCE INSPECTION DEFICIENCY REPORT (formerly ADR)  
AIG - ADDRESS INDICATOR GROUP  
AIMD - AIRCRAFT INTERMEDIATE MAINTENANCE DEPARTMENT/DETACHMENT  
AIR - AIRCRAFT INVENTORY RECORD  
AIRRS - AIRCRAFT INVENTORY READINESS AND REPORTING SYSTEM  
AIRS - AIRCRAFT INVENTORY REPORTING SYSTEM  
AIS - AVIATION INFORMATION SYSTEMS

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AIISD - AVIATION INFORMATION SYSTEM DEPARTMENT  
ALERTS - AVIATION LOGISTICS ELECTRONIC REQUIREMENTS TRAINING SYSTEM  
ALSP - ACQUISITION LOGISTICS SUPPORT PLAN - (Formerly the Integrated Logistics Support Plan (ILSP)).  
ALSS - AVIATION LIFE SUPPORT SYSTEM(S)  
AM - AMENDMENT or AVIATION STRUCTURAL MECHANIC  
AMARC - AEROSPACE MAINTENANCE AND REGENERATION CENTER  
AMB - AIRCRAFT MISHAP BOARD  
AMD - ACTIVITY MANNING DOCUMENT  
AME - AVIATION STRUCTURAL MECHANIC EGRESS  
AMI - AVIATION MAINTENANCE INSPECTION  
AMMRL - AIRCRAFT MAINTENANCE MATERIAL READINESS LIST (PROGRAM)  
AMMT - AVIATION MAINTENANCE MANAGEMENT TEAM  
AMO - ASSISTANT MAINTENANCE OFFICER  
AMRR - AIRCRAFT MATERIAL READINESS REPORT  
AMSU - AERONAUTICAL MATERIAL SCREENING UNIT  
AMT - AVIATION MAINTENANCE TRAINING  
AMTCS - AVIATION MAINTENANCE TRAINING CONTINUUM SYSTEM  
AMTCS (TOOLS) - AVIATION MAINTENANCE TRAINING CONTINUUM SYSTEM (TOOLS)  
AMTRP - AIRCRAFT MAINTENANCE TRAINING AND READINESS PROGRAM  
AO - AVIATION ORDNANCEMAN  
API - APPLICATION PROGRAM INTERFACE  
APL - ALLOWANCE PARTS LIST  
APML - ASSISTANT PROGRAM MANAGER FOR LOGISTICS APPROPRIATION  
APU - AUXILIARY POWER UNIT  
ARR - ALLOWANCE REQUIREMENTS REGISTER  
AS - AVIATION SUPPORT EQUIPMENT TECHNICIAN  
ASB - ALERT SERVICE BULLETIN  
ASD - AVIATION SUPPLY DEPARTMENT

ASD - AVIATION SUPPORT DIVISION  
ASDTP - AVIATION SUPPLY DESK TOP PROCEDURES (MARINE CORPS)  
ASM - ADVANCED SKILLS MANAGEMENT  
ASO - AVIATION SAFETY OFFICER/AVIATION SUPPLY OFFICER  
ASPA - AIRCRAFT SERVICE PERIOD ADJUSTMENT (PROGRAM)  
ASR - ASSEMBLY SERVICE RECORD ASSEMBLY/ASSY  
AT - AVIATION ELECTRONICS TECHNICIAN  
AT CODE - ACTION TAKEN CODE  
ATAC - ADVANCED TRACEABILITY AND CONTROL  
ATB - AVIATION TRAINING BRANCH  
ATDR - AERONAUTICAL TECHNICAL DIRECTIVE REQUIREMENTS  
ATE - AUTOMATIC TEST EQUIPMENT  
ATL - AIRCRAFT TRANSFER LETTER  
ATO - AIRCRAFT TRANSFER ORDER  
AUL - AUTHORIZED USE LIST  
AUOL - AGE UNFILLED ORDER LISTING  
AVC - AVIONICS CHANGE  
AVCAL - AVIATION CONSOLIDATED ALLOWANCE LIST  
AVDLR - AVIATION DEPOT LEVEL REPAIRABLE  
AVO - AVIONICS OFFICER  
AWBS - AUTOMATED WEIGHT AND BALANCE SYSTEM  
AWM - AWAITING MAINTENANCE  
AWP - AWAITING PARTS  
AWR - AUTOMATED WORK ORDER RELEASE TOOL  
AWSE - ARMAMENT WEAPONS SUPPORT EQUIPMENT  
AZ - AVIATION MAINTENANCE ADMINISTRATIONMAN

**B**

BCM - BEYOND CAPABILITY OF MAINTENANCE

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BTR - BROKEN TOOL REPORT

BUNO - BUREAU NUMBER

**C**

CAD - CARTRIDGE ACTUATED DEVICE

CAI - CRITICAL APPLICATION ITEM/COMPUTER AIDED INSTRUCTION

CANTRAC - CATALOG OF NAVY TRAINING COURSES (NAVEDTRA 10500)

CASS - CONSOLIDATED AUTOMATED SUPPORT SYSTEM

CAT - CATAPULT OR CATEGORY

CAT I PQDR - CATEGORY I PRODUCT QUALITY DEFICIENCY REPORT

CAT II PQDR - CATEGORY II PRODUCT QUALITY DEFICIENCY REPORT

CAT I TPDR - CATEGORY 1 TECHNICAL PUBLICATIONS DEFICIENCY REPORT

CAT 2 TPDR - CATEGORY 2 TECHNICAL PUBLICATIONS DEFICIENCY REPORT

CAT 3 TPDR - CATEGORY 3 TECHNICAL PUBLICATIONS DEFICIENCY REPORT

CAT 4 TPDR - CATEGORY 4 TECHNICAL PUBLICATIONS DEFICIENCY REPORT

CBT - COMPUTER BASED TRAINING

CDI - COLLATERAL DUTY INSPECTOR

CDQAR - COLLATERAL DUTY QUALITY ASSURANCE REPRESENTATIVE

CEB - COMMERCIAL ENGINE BULLETIN

CENNAVAVNTECHTRA - CENTER FOR NAVAL AVIATION TECHNICAL TRAINING

CENNAVAVNTECHTRAU - CENTER FOR NAVAL AVIATION TECHNICAL TRAINING UNIT

CFE - CONTRACTOR FURNISHED EQUIPMENT

CG MCCDC - COMMANDING GENERAL, MARINE CORPS COMBAT DEVELOPMENT COMMAND

CHRIMP - CONSOLIDATED HAZMAT REUTILIZATION AND INVENTORY MANAGEMENT PROGRAM

CMIS - CONFIGURATION MANAGEMENT INFORMATION SYSTEM

CMS - COMMUNICATIONS MATERIAL SYSTEMS

COMMARFORCOM - COMMANDER, MARINE FORCES COMMAND

COMMARFORPAC - COMMANDER, MARINE FORCES PACIFIC

CMMR - CORE MODEL MINIMUM REQUIREMENTS

COSAL - CONSOLIDATED SHIPBOARD ALLOWANCE LIST

COTS - COMMERCIAL-OFF-THE-SHELF  
CRIPL - CONSOLIDATED REMAIN-IN-PLACE LIST  
CSEC - COMPUTERIZED SELF EVALUATION CHECKLIST  
CTPL - CENTRAL TECHNICAL PUBLICATIONS LIBRARY  
CV - AIRCRAFT CARRIER  
CVN - MULTI-PURPOSE AIRCRAFT CARRIER, NUCLEAR  
CVW - CARRIER AIR WING

**D**

DC AVN - DEPUTY COMMANDANT OF MARINE CORPS AVIATION  
DLR - DEPOT LEVEL REPAIRABLE  
DRMO - DEFENSE REUTILIZATION MANAGEMENT OFFICE  
DRRS - DEFENSE READINESS REPORTING SYSTEM  
DSN - DEFENSE SWITCHED NETWORK  
DTG - DATE TIME GROUP  
DTO - DIRECT TURN OVER

**E**

EAF - EXPEDITIONARY AIRFIELD  
ECM - ELECTRONIC COUNTERMEASURES  
EER - EXPLOSIVE EVENT REPORT  
EHR - EQUIPMENT HISTORY RECORD  
EI - ENGINEERING INVESTIGATION  
EIC - EQUIPMENT IDENTIFICATION CODE  
EME - ELECTROMAGNETIC ENVIRONMENT  
EMI - ELECTROMAGNETIC INTERFERENCE  
EMR - EXPLOSIVE MISHAP REPORT  
EMT - ELAPSED MAINTENANCE TIME  
EOC - EQUIPMENT OPERATIONAL CAPABILITY CODE  
EOQ - END OF QUARTER

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EOR - EQUIPMENT OPERATING RECORD  
ESC - EXECUTIVE STEERING COMMITTEE  
ESD - ELECTROSTATIC DISCHARGE  
ESDS - ELECTROSTATIC DISCHARGE SENSITIVE

**F**

FAA - FEDERAL AVIATION ADMINISTRATION  
FAD - FORCE ACTIVITY DESIGNATOR  
FAP - FLEET ASSISTANCE PROGRAM  
FCA - FIELD CALIBRATION ACTIVITY - I-level (W/C 670)  
FCF - FUNCTIONAL CHECK FLIGHT  
FISC - FLEET INDUSTRIAL SUPPLY CENTER  
FMF - FLEET MARINE FORCE  
FOD - FOREIGN OBJECT DAMAGE/DEBRIS  
FOM - FACILITATE OTHER MAINTENANCE  
FRC - FLEET READINESS CENTER (formerly NADEP)  
FRS - FLEET READINESS SQUADRON

**G**

GAI - GENERAL AIRCRAFT INFORMATION  
GAP - GROUP ASSISTANCE PROGRAM  
GFE - GOVERNMENT FURNISHED EQUIPMENT  
GMT - GENERAL MILITARY TRAINING  
GSA - GENERAL SERVICES ADMINISTRATION

**H**

HAZMAT - HAZARDOUS MATERIAL  
HAZMINCEN - HAZARDOUS WASTE MINIMIZATION CENTER  
HAZREP - HAZARD REPORT  
HAZWASTE - HAZARDOUS WASTE  
HMC&M - HAZARDOUS MATERIAL CONTROL AND MANAGEMENT

HMIS - HAZARDOUS MATERIAL INFORMATION SYSTEM  
HMH - HELICOPTER MARINE HEAVY (CH-53)  
HMLA - HELICOPTER MARINE LIGHT ATTACK (H-1)  
HMM - HELICOPTER MARINE MEDIUM (CH-46)  
HMR - HAZARDOUS MATERIAL REPORT  
HPPR - HUMAN PERFORMANCE PRODUCT REVIEW  
HSU - HYDRAULIC SERVICING UNIT  
HTS - HYBRID TEST STATION OR HYDRAULIC TEST STAND

**I**

IAFC - INTERIM AIRFRAME CHANGE IAMT - INVENTORY ACCURACY MANAGEMENT TOOL  
IAVC - INTERIM AVIONICS CHANGE  
ICN - INVESTIGATION CONTROL NUMBER  
ICP - INVENTORY CONTROL POINT  
ICRL - INDIVIDUAL COMPONENT REPAIR LIST  
IFF - IDENTIFICATION, FRIEND OR FOE  
I-LEVEL - INTERMEDIATE LEVEL I-LEVEL CALIBRATION ACTIVITY  
ILS - INTEGRATED LOGISTIC SUPPORT  
IMA - INTERMEDIATE MAINTENANCE ACTIVITY  
IMC - INSTRUMENT METEOROLOGICAL CONDITIONS  
IMI - INTERACTIVE MULTIMEDIA INSTRUCTION  
IPB - ILLUSTRATED PARTS BREAKDOWN  
IQR - INDIVIDUAL QUALIFICATION RECORD  
IRAC - INTERIM RAPID ACTION CHANGE  
IRIM - INTENSIVE REPAIRABLE ITEM MANAGEMENT  
ITSS - INDIVIDUAL TRAINING STANDARDS SYSTEM

**J**

JC - JOB COMPLETE

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JCN - JOB CONTROL NUMBER

JOAP - JOINT OIL ANALYSIS PROGRAM

JQR - JOB QUALIFICATION REQUIREMENT

**K**

**L**

LAN - LOCAL AREA NETWORK

LOX - LIQUID OXYGEN

LPD - LANDING PLATFORM DOCK

**M**

MACG - MARINE AIR CONTROL GROUP

MAF - MAINTENANCE ACTION FORM

MAG - MARINE AIRCRAFT GROUP

MAGTF - MARINE AIR GROUND TASK FORCE

MALSP - MARINE AVIATION LOGISTICS SUPPORT PROGRAM

MATMEP - MAINTENANCE TRAINING MANAGEMENT AND EVALUATION PROGRAM

MATSS - MARINE AVIATION TRAINING SYSTEMS SQUADRON

MAW - MARINE AIRCRAFT WING

MCAS - MARINE CORPS AIR STATION

MCC - MATERIAL CONTROL CODE

MCCDC - MARINE CORPS COMBAT DEVELOPMENT COMMAND

MCO - MARINE CORPS ORDER

MCN - MAINTENANCE ACTION FORM CONTROL NUMBER

MESM - MISSION ESSENTIAL SUBSYSTEM MATRICIES

MET - MISSION ESSENTIAL TASK

METBUL - METROLOGY BULLETIN

METCAL - METROLOGY AND CALIBRATION

METL - MISSION ESSENTIAL TASK LIST

MF - MOBILE FACILITY

MIM - MAINTENANCE INSTRUCTIONS MANUAL  
MMCO - MAINTENANCE MATERIAL CONTROL OFFICER  
MMF - MOBILE MAINTENANCE FACILITY  
MMP - MONTHLY MAINTENANCE PLAN  
MO - MAINTENANCE OFFICER  
MOS - MILITARY OCCUPATIONAL SPECIALTY  
MRC - MAINTENANCE REQUIREMENTS CARD  
MSDS - MATERIAL SAFETY DATA SHEET  
MTL - MASTER TASK LIST  
MWSG - MARINE WING SUPPORT GROUP  
MWSS - MARINE WING SUPPORT SQUADRON

**N**

NAE - NAVAL AVIATION ENTERPRISE  
NAF - NAVAL AIR FACILITY  
NALC - NAVY AMMUNITION LOGISTIC CODE  
NALCOMIS - NAVAL AVIATION LOGISTICS COMMAND MANAGEMENT INFORMATION SYSTEM  
NALDA - NAVAL AVIATION LOGISTICS DATA ANALYSIS  
NAMDRP - NAVAL AVIATION MAINTENANCE DISCREPANCY REPORTING PROGRAM  
NAMPP - NAVAL AVIATION MAINTENANCE PROGRAM  
NAMPSOP - NAVAL AVIATION MAINTENANCE PROGRAM STANDARD OPERATING PROCEDURES  
NAR - NOTICE OF AMMUNITION RECLASSIFICATION  
NAS - NAVAL AIR STATION  
NATEC - NAVAL AIR TECHNICAL DATA AND ENGINEERING SERVICE COMMAND  
NATOPS - NAVAL AVIATION TRAINING AND OPERATING PROCEDURES STANDARDIZATION  
NATTC - NAVAL AVIATION TECHNICAL TRAINING CENTER  
NAVEDTRA - NAVAL EDUCATION AND TRAINING  
NAVMC - NAVY AND MARINE CORPS  
NBA - NEVER BEEN ATTEMPTED  
NBC - NUCLEAR, BIOLOGICAL, AND CHEMICAL

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NIIN - NATIONAL ITEM IDENTIFICATION NUMBER  
NITRAS - NAVY INTEGRATED TRAINING RESOURCES AND ADMINISTRATION SYSTEM  
NMC - NOT MISSION CAPABLE  
NMCM - NOT MISSION CAPABLE MAINTENANCE  
NOAP - NAVY OIL ANALYSIS PROGRAM  
NOMMP - NAVAL ORDNANCE MAINTENANCE MANAGEMENT PROGRAM  
NRFI - NOT READY FOR ISSUE  
NSN - NATIONAL STOCK NUMBER  
NSWC - NAVAL SURFACE WARFARE CENTER  
NTFS - NAVY TRAINING FEEDBACK SYSTEM  
NTR - NO TOOLS REQUIRED

**O**

OIC - OFFICER IN CHARGE  
OJT - ON-THE-JOB TRAINING  
OMA - ORGANIZATIONAL MAINTENANCE ACTIVITY  
OOMA - OPTIMIZED ORGANIZATIONAL MAINTENANCE ACTIVITY  
OPM - OFFICE OF PERSONNEL MANAGEMENT  
OPNAV - OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
ORG CODE - ORGANIZATION CODE  
OSHA - OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

**P**

PAD - PROPELLANT ACTUATED DEVICE  
PBL - PERFORMANCE BASED LOGISTICS  
PCA - PERMANENT CHANGE OF ASSIGNMENT  
PCS - PERMINANT CHANGE OF STATION  
PDM - PHASED DEPOT MAINTENANCE  
PEB - PRE-EXPENDED BIN  
PEDD - PORTABLE ELECTRONIC DISPLAY DEVICE

PLTS - PARTS LIFE TRACKING SYSTEM  
PM - PREVENTIVE MAINTENANCE  
PMA - PROGRAM MANAGER AIR  
PMC - PARTIAL MISSION CAPABLE  
PMCM - PARTIAL MISSION CAPABLE MAINTENANCE  
PMCS - PARTIAL MISSION CAPABLE SUPPLY  
PME - PRECISION MEASURING EQUIPMENT  
PMI - PLANNED MAINTENANCE INTERVAL  
PMIC - PERIODIC MAINTENANCE INFORMATION CARD  
PMRC - PERIODIC MAINTENANCE REQUIREMENT CARD  
PMS - PLANNED MAINTENANCE SYSTEM OR PREVENTIVE MAINTENANCE SERVICES  
POA&M - PLAN OF ACTION AND MILESTONES  
POI - PROGRAM OF INSTRUCTION  
POL - PETROLEUM, OIL, AND LUBRICANT  
PPB - POWER PLANT BULLETIN  
PPC - POWER PLANT CHANGE  
PPE - PERSONAL PROTECTIVE EQUIPMENT  
PPM - PARTS PER MILLION  
PQDR - PRODUCT QUALITY DEFICIENCY REPORT  
PTT - PART TASK TRAINER  
PUC - PERMANENT UNIT CODE

**Q**

QA - QUALITY ASSURANCE  
QAR - QUALITY ASSURANCE REPRESENTATIVE  
QD - QUALIFICATION/DESIGNATION  
QDL - QUALIFICATION/DESIGNATION/LICENSE  
QDR - QUALITY DEFICIENCY REPORT  
QEC - QUICK ENGINE CHANGE

**R**

RAC - RAPID ACTION CHANGE  
RAMEC - RAPID ACTION MINOR ENGINEERING CHANGE  
RBA - READY BASIC AIRCRAFT  
RBM - READY BASIC MISSION SETS  
RCN - REPORT CONTROL NUMBER  
RFI - READY FOR ISSUE  
RFT - READY FOR TASKING  
RFU - READY FOR USE  
RIP - REMAIN IN PLACE  
RMD - REPAIRABLES MANAGEMENT DIVISION  
RMS - REPAIRABLE MATERIAL SECTION

**S**

SAT - SYSTEMS APPROACH TO TRAINING  
SFF - SAFE FOR FLIGHT  
SAR - SEARCH AND RESCUE  
SCIR - SUBSYSTEM CAPABILITY IMPACT REPORTING  
SDLM - STANDARD DEPOT LEVEL MAINTENANCE  
SE - SUPPORT EQUIPMENT  
SEATS - SURVIVAL EQUIPMENT ASSET TRACKING SYSTEM  
SEB - SUPPORT EQUIPMENT BULLETIN  
SEC - SUPPORT EQUIPMENT CHANGE  
SERMIS - SUPPORT EQUIPMENT RESOURCES MANAGEMENT INFORMATION SYSTEM  
SHML - SHIPS HAZARDOUS MATERIALS LIST  
SLEP - SERVICE LIFE EXTENSION PROGRAM  
SME - SUBJECT MATTER EXPERT  
SM&R - SOURCE, MAINTENANCE, AND RECOVERABILITY CODE

SNM - SAID NAMED MARINE  
SRA - SHOP REPLACEABLE ASSEMBLY  
SRC - SCHEDULED REMOVAL COMPONENT  
SSD - SQUADRON SUPPORT DIVISION  
SSP - SYSTEM SKILL PROFICIENT  
SSSP - SUBSYSTEM SKILL PROFICIENT

**T**

T/M/S - TYPE/MODEL/SERIES  
T&R - TRAINING AND READINESS  
TAD - TEMPORARY ADDITIONAL DUTY  
TCM - TOOL CONTROL MANUAL  
TCN - TRANSPORTATION CONTROL NUMBER  
TCP - TOOL CONTROL PROGRAM  
TD - TECHNICAL DIRECTIVE  
TDC - TECHNICAL DIRECTIVE COMPLIANCE  
TDSA - TECHNICAL DIRECTIVE STATUS ACCOUNTING  
TEC - TYPE EQUIPMENT CODE  
TECOM - TRAINING AND EDUCATION COMMAND  
TFMMS - TOTAL FORCE MANPOWER MANAGEMENT SYSTEM  
TFOA - THINGS FALLING OFF AIRCRAFT  
TM - TYPE MAINTENANCE (CODE)  
TMS - TRAINING MANAGEMENT SYSTEM  
TMDE - TEST, MEASURE, AND DIAGNOSTIC EQUIPMENT  
TPDR - TECHNICAL PUBLICATIONS DEFICIENCY REPORT  
TPL - TECHNICAL PUBLICATIONS LIBRARY

**U**

UAS - UNMANNED AIR SYSTEMS  
UAV - UNMANNED AIR VEHICLE

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UIC - UNIT IDENTIFICATION CODE

UTM - UNIT TRAINING MANAGEMENT

**V**

VMA - FIXED WING MARINE ATTACK SQUADRON (AV-8)

VMAQ - FIXED WING MARINE ATTACK ELECTRONIC WARFARE SQUADRON (EA-6)

VMAT - FIXED WING MARINE ATTACK TRAINING SQUADRON (AV-8)

VMFA - FIXED WING MARINE FIGHTER ATTACK SQUADRON (F/A-18A/B/C)

VMFA(AW)- FIXED WING MARINE FIGHTER ATTACK SQUADRON (ALL WEATHER) (F/A-18D)

VMFAT - FIXED WING MARINE FIGHTER ATTACK TRAINING SQUADRON (F/A-18)

VMGR - FIXED WING MARINE AERIAL REFUELING TRANSPORT SQUADRON (C-130)

VMM - FIXED WING MARINE MEDIUM TILTROTOR SQUADRON (V-22)

VMMT - FIXED WING MARINE MEDIUM TILTROTOR TRAINING SQUADRON (V-22)

VMR - FIXED WING MARINE TRANSPORT SQUADRON

**W**

W&B - WEIGHT AND BALANCE

WAP - WING ASSISTANCE PROGRAM

WC - WORK CENTER

WEL - WEAPONS EQUIPMENT LIST

WHE - WEAPONS HANDLING EQUIPMENT

WRA - WEAPONS REPLACEABLE ASSEMBLY

WSE - WEAPONS SUPPORT EQUIPMENT

WSM - WEAPON SYSTEM MANAGER

WSPD - WEAPONS SYSTEM PLANNING DOCUMENT

WUC - WORK UNIT CODE

**X**

**Y**

**Z**

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**APPENDIX C**  
**LIST OF QUALIFICATIONS, DESIGNATIONS, AND LICENSES (QDLs)**  
**(List is not all-inclusive)**

MAINTENANCE QUALIFICATIONS AND DESIGNATIONS	SUPPORT EQUIPMENT QUALIFICATIONS/LICENSES
A/E37T-26 TEST CELL OPERATOR (Power Unit)	(02 SPEN CART) OXYGEN RECHARGE SERV. TRAILER
AERIAL OBSERVER	(3000 PSI) PORTABLE NITROGEN CYLINDER
AIRCRAFT COMSEC CERTIFIED	(1426AS300) TYPE II OXYGEN RECHARGE SERVICING TRAILER I-LEVEL
AIRCRAFT JACKING SUPERVISOR	(65A102-J1) CORROSION CONTROL UNIT
AIRFIELD INDOC	(75D110065-1003) DEMINERALIZATION CART
APU (AUXILIARY POWER UNIT)	(75D110080-1001) 4-TON PORTABLE FLOOR CRANE (COBRA CRANE)
APU (AUXILIARY POWER UNIT) GROUND/MAINT	(76E04000-30A) SPRAY UNIT CORROSION CONTROL (ENGINE WASH CART)
BATTERY NICAD	(A/M26M-3) LOX PURGE UNIT
BATTERY SLAB	(A/M26U-4/4B) GEN CART (NAN-4)
BLADE BLENDING CERT	(A/M26U-4B) NITROGEN CART (NAN-4B)
BLADE FOLD	(A/M27T-3) HYDRUALIC POWER SUPPLY
BRAKE RIDER	(A/M27T-5) HYDRUALIC POWER SUPPLY
CABLE REPAIR CDI TEST	(A/M27T-6) HYDRUALIC TEST STAND
CATAPULT FINAL CHECKER	(A/M27T-7) HYDRUALIC POWER SUPPLY
CDI (COLLATERAL DUTY INSPECTOR)	(A/M32-A-108) SHORE MEPP (MOBILE ELEC POWER PLANT)
CDQAR	(A/M32C-17) AIR CONDITIONING UNIT
COBRA CRANE	(A/M32M-18A) CORROSION CONTROL SPRAY UNIT I-LEVEL
CORROSION CONTROL	(A/M32U-20) DE-ICER
CREW CHIEF	(A/M34M-2) NITROGEN SERVICING HAND TRUCK (NAN JR) I-LEVEL
EGRESS CERT	(A/M37M-2) FLUID PURIFIER I-LEVEL
EKMS (ELECTRONIC KEY MANAGEMENT SYSTEM)	(A/M42M) LIGHT CART
EMERGENCY RECLAMATION	(A/M42M-2A) LIGHT CART (CILOP)
ESD (ELECTROSTATIC DISCHARGE)	(A/M47A-4) AIR START UNIT
F402-RR-408B TEST CELL	(A/M48A-5) STEAM CLEANER I-LEVEL
FINAL CHECKER	(A/M48M-4) PRESSURE WASHER I-LEVEL
FLIGHT DECK OBSERVER	(A/S32A-30) SE TOW TRACTOR
FUEL SAMPLES	(A/S32A-30A) TOW TRACTOR
GROUND TURN	(A/S32A-37) TOW TRACTOR
HIGH POWER	(A/S32A-42) TOW TRACTOR
HLU-196D/E BOMB HOISTING ASS I-LEVEL	(A/S32A-44) SEAT UTILITY CRANE
HYDRAULIC CONTAMINATION	(A/S32A-45) MID TOW TRACTOR
INSTRUCTOR EVALUATOR	(A/S32K-1D) WEAPONS LOADER
INSTRUCTOR QUALIFIED	(A/S32K-1E) WEAPONS LOADER
INTEGRITY WATCH	(A/S32M-14) AIRCRAFT MAINTENANCE CRANE
LASER SAFETY SUPERVISOR	(A/S32M-17) AIRCRAFT MAINTENANCE CRANE

MAINTENANCE QUALIFICATIONS AND DESIGNATIONS (continued)	SUPPORT EQUIPMENT QUALIFICATIONS/LICENSES (continued)
LASER SAFETY WORKER	(A/S48M-2) MAINTENANCE PLATFORM (DIESEL) I-LEVEL
LOW POWER	(A/S48M-3) ELECTRIC SERVICING PLATFORM
LOX CERT (LIQUID OXYGEN)	(A/U26U-1) OXYGEN SERVICING UNIT
N2 (NITROGEN)	(A/Y47A-5) TURBINE
NAVOSH/SAFETY	(ACE 248-102) DEMIN CART
OIL ANALYSIS	(ACU-20/M) AIR COMPRESSOR UNIT
ORD (ORDNANCE) TEAM LEADER	(AM48M-4) PRESSURE WASHER
ORD (ORDNANCE) TEAM MEMBER	(AP1500-SM) GROUND POWER UNIT
PC (PLANE CAPTAIN)	(BT-400-46) PRE-HEATER
PETTIBONE	(DA-675/MSM) DUMMY LOAD BANK
PPE (PERSONAL PROTECTIVE GEAR) 3M INSPECTION	(ETU-110/E) 404 ENGINE TRAILER
PPE (PERSONAL PROTECTIVE GEAR) 3M MAINTENANCE	(GTC-85) GAS TURBINE ENGINE
PYLON FOLD	(HM-1-GT1-C) HYDROMITE STRUT SERVICING UNIT
QAR (QUALITY ASSURANCE)	(HPU-1-5) HYDRAULIC FLUID PURIFIER
QASO	(JG-75) TOW TRACTOR
SAFE FOR FLIGHT	(LCFU-2AC-302-8) LIQUID COOLANT FILTRATION UNIT
SEAT CERTIFICATION	(MEP-009A) (200KW) GENERATOR
SSSP 2000	(MEP-105) (60KW) GENERATOR
SSSP 3000	(MEP-807A) (100KW TQG) STATIC MOBILE FREQ CONVERTER (SMFC)
SSSP 4000	(MEP-809A) (100KW TQG) STATIC MOBILE FREQ CONVERTER (SMFC)
SSSP 5000	(MMG-1A) MOBILE ELECTRIC POWER PLANT
SSSP 6000	(MSU-200NAV) GAS TURBINE ENGINE
SSSP 7000	(N2 PORT) PORTABLE NITROGEN CYLINDER
T-10 408A/B TEST CELL	(NAN 2/2A/3) NITROGEN SERVICING CART/BOTTLE
T-23 408A TEST CELL	(NC-10A/B) MOBILE ELECTRIC POWER UNIT
T-23 408B TEST CELL	(NC-2A) MOBILE ELECTRIC POWER UNIT
TIRE & WHEEL	(NC-8A/-1) MOBILE ELECTRIC POWER UNIT
TOW QUALIFIED	(SLC-225) LAVATORY CART (POOP CART)
TOW SUPERVISOR	(TA-75A/B/C) TOW TRACTOR
VIBE ANALYSIS	(TMU-27) LIQUID OXYGEN CART
	(TMU-70/M) LIQUID OXYGEN CART
	(TMU-83/84E) (400 GAL) LOX/LIN STORAGE TANK
	(TYPE 4) LIQUID OXYGEN CART

SCHOOL QUALIFICATIONS/LICENSES	
2M (MICRO MINI COMPONENT REPAIR) RECERTIFIER	MIG (METAL INERT GAS) WELDER
2M (MICRO MINI COMPONENT REPAIR) TECH	MMF CSC QUAL
AIRCRAFT WEIGHT AND BALANCE	NALCOMIS
AMO COURSE	NAVAL MOTOR VEHICLE & RAILCAR INSPECTOR
AOOC (AVIATION ORDNANCE OFFICER CAREER PROGRESSION) LEVEL I	NDI (NON-DESTRUCTIVE INSPECTOR) 591HRS
ARC/BRAZING (OXYFUEL SHIELDED METAL ARC WELDER /BRAZING CERT) 120HRS	PAINT SCHOOL QUALIFICATION
AVGFE (AVIATION GAS FREE ENGINEER) (A/C CONFINED SPACE)	QA (QUALITY ASSURANCE)
CTPL (TECHNICAL PUBLICATION LIBRARY)	ROLMS (RETAIL ORDINANCE LOGISTICS MANAGEMENT SYSTEM) DBA
DEFENSE PKG of HAZMAT for TRANSPORT	RPPM (RESPIRATORY PROTECTION PRGM MANAGEMENT/A-493-0072) 40HRS
DEFENSE PKG of HAZMAT for TRANSPORT	RSO (RADIATION SAFETY OFFICER) 80HRS
HM&M SUPER CERT, HAZMAT (levels)	SEAM (SENIOR ENLISTED AVIATION MAINTENCE) COURSE
JASSM COURSE	SHIP BOARD FIRE FIGHTING
LOGS AND RECORDS	TIG (TUNGSTEN INERT GAS) WELDER 320HRS
MAF/SCIR DATA DOCUMENTATION	WORK CENTER SUPERVISOR
MAINTENANCE CONTROL	
MEDICAL REQUIREMENTS	
HEARING CONSERVATION	CPR INSTRUCTOR
EXPLOSIVE DRIVER'S PHYSICAL	RESPIRATOR FIT & PHYSICAL HEALTH ASSESSMENT
EXPLOSIVE HANDLER'S PHYSICAL	ORDNANCE PHYSICAL
CPR	EYE EXAMINATION

**APPENDIX D**  
**MAINTENANCE DEPARTMENT**  
**CORE MODEL TRAINING REPORT (CMTR)**

1. Purpose. To provide Aircraft Maintenance Departments, Divisions, and Work Centers with training readiness reports designed to assist Work Center Supervisors, Division and Maintenance Chiefs with tracking and reporting training readiness. The reports contained in this appendix will utilize the concepts, guidance, and requirements of the AMTRP.

2. General. To complement the AMTRP, Maintenance Departments require a standardized method of calculating and reporting on training readiness levels at the individual, Work Center, Division, and Department levels. This appendix contains TECOM (ATB) developed methods, figures, and tables to demonstrate how AMTRP concepts will be used to satisfy Work Center, Division, and Department level training readiness measures while providing concise and effective reports to supervisors. Appendix D begins with a Department level readiness report concept and proceeds to describe how we will create this and other training reports from logged OJT and NAMP training. The effort includes the provision of Work Center and Division level readiness reports that culminate in the Department Report. The reports contained herein will be incorporated into ASM.

3. Maintenance Department and Readiness Reporting. Each Maintenance Department consists of Maintenance Divisions. Each Division consists of one or more Work Centers populated by Marines in training. To ensure a Maintenance Department is populated with the right mix of trained Marines, Maintenance Chiefs from across the Marine Corps provided their input as to that right mix of skills, leadership, and licensing through the Aviation Logistics Electronic Requirements Training System (ALERTS) report. The AMTRP will leverage the ALERTS work by using those metrics as the baseline Core Model Minimum Requirement (CMMR) for Work Center and Division training requirements. Figure D-1 provides a Maintenance Department-wide readiness report using familiar SORTS Training Levels (T-Levels) and applying them at the Work Center and Division Levels. In general, the top portion of the Maintenance Department Core Model Training Report (CMTR) identifies the unit and provides a Department Level assessment on training readiness with respect to System Skill Proficiency (SSP), Maintenance Leadership (ML), and Support Equipment (SE) Licensing. The middle portion of the report provides each Division with a Training Level (DTL) from DTL-1 through DTL-4 as applied to SSP, ML, and SE Licensing. Finally, the lower portion of the report, provides a basic manpower perspective on each Division (without regard to rank or billet). This area of the report is significant in that on many occasions, training deficiencies are related to manpower shortages.

MAINTENANCE DEPARTMENT CORE MODEL TRAINING REPORT (CMTR)									
F-18AC Squadron									
SYSTEM SKILLS	T-2	DEPT TRAINING READINESS			VMFA - 299				
MAINT LDRSHIP	T-2	T-2			8/31/2009				
SE LICENSING	T-2								
DIVISION TRAINING READINESS		QA	MC	MA	AF	AVI	LINE	BRD	DEPT
		DTL	DTL	DTL	DTL	DTL	DTL	DTL	CMTL
System Skills		2	2	2	2	2	2	2	2.00
Maintenance Leadership		2	2	2	2	2	2	2	2.00
SE Licensing		2	2	2	2	2	2	2	2.00
MAINTAINER AVAILABILITY		QA	MC	MA	AF	AVI	LINE	BRD	TOTAL
T/O		12	8	6	58	45	50	40	219
On Hand		12	8	6	58	45	50	40	219
% T/O		100%	100%	100%	100%	100%	100%	100%	100%

Figure D-1.--Notional Maintenance Department CMTR

4. Individual Training. In order to provide a Department Level readiness report, data at the individual level must be collected and applied to the training records of individual Marines. Maintenance OJT data will be pushed to ASM from NALCOMIS Maintenance Action Forms (MAFs) to populate training records and form the foundation for Maintenance training readiness. NALCOMIS MAF data required by ASM to update training is found in Table D-1.

Table D-1.--MAF Requirements for ASM Training Update

Required MAF Data	Definition	Data required for ASM Training update
Name(s)	The name of personnel performing the work.	Identify correct record for update
Work Unit Code (WUC)	The WUC identifying the system, subsystem, or component on which work is being performed is entered into this block.	Identify correct System, Subsystem for update
Type Equipment Code (TEC)	The type equipment code that describes the end item on which the work is being performed.	Identify correct T&R Task for update
Type Maintenance Code (TMC)	The one character alpha or numeric code that describes the type of maintenance being performed.	For use in identifying non-equipment specific actions (inspection, non-aircraft maintenance...?)
Action Taken Code -(AT)	The one-character alpha or numeric code that describes the action taken to correct the discrepancy.	May assist identifying specific tasks or performance requirements.
Individual Action Taken Codes (IAC) (Future)	These codes enable the identification of multiple individuals who have accomplished one or more maintenance actions on a single MAF.	Provides the ability to match specific maintenance actions to specific T&R tasks for credit.

Inspected By	Identifies the individual who inspected the work	Provides ASM with both the individual who inspected the work and would provide T&R credit to the inspector.
Supervisor	Identifies Work Center Supervisor	Provides ASM information necessary to provide T&R credit to the supervisor.
In-process Inspections	Identifies in-process inspections and inspectors	Provides ASM information necessary to provide T&R credit to the inspectors.

5. Training Records. As training data is pushed to ASM, data will populate individual records and the Work Center Training Record Summary within ASM. Work Unit Codes, Type Equipment Codes, Type Maintenance Codes, and Action Taken Codes assist in the mapping process from maintenance action to individual training record. Figures D-2 through D-4 display conceptual views of the Work Center Training Record Summary addresses System Skill Proficiency, Qualifications and Designations, and SE licensing.

Power Plants Work Center System Skill Proficiency 2000 Performance Level	Performance Level View						
	1000	2000	3000	4000	5000	6000	7000
Power Plants Work Center System Skill Proficiency 2000 Performance Level	None EAS	None EAS	None EAS	None EAS	None EAS	None EAS	None EAS
Fuel Distribution System	1/15/2009			1/15/2009		1/15/2009	
Inflight Refueling Subsystem	1/19/2009	10/31/2008	1/3/2009			1/1/2009	
NAMP Requirements	11/25/2007	7/29/2008	2/15/2008			7/7/2008	
Task	10/31/2007	3/25/2008	3/29/07			4/7/2008	
Task	11/22/2007	3/5/2008	5/13/07			5/5/08	
Task	7/14/07	4/25/008	4/7/07			4/14/08	
Fuel Flow Proportioner	8/11/2007		7/7/2008			11/7/2008	5/11/2008
NAMP Requirements	7/14/2006		7/4/2008			2/4/2008	12/2/2008
Task	4/7/2007		4/1/2008			2/7/2008	2/9/2007
Task	5/21/2008		5/21/2008			5/21/2008	1/27/2007
Task	5/5/2008		5/5/2008			4/5/2008	3/24/2008
Boat Pump Subsystem	8/4/2008		8/4/2008			8/4/2008	3/25/2008
NAMP Requirements	1/11/2008		5/11/2008			1/11/2008	4/12/2008
Task	6/8/2007		8/25/07			2/8/2007	2/18/2007
Task	10/24/2008		10/25/2007			3/22/2007	3/23/07
Task	10/24/2008		10/24/2008			3/24/2008	3/24/2008
Task	10/25/2008		10/25/2008			3/25/2008	3/25/2008

Figure D-2.--Work Center Training Record Summary--SSP

6. Individual Training Summary and System Skill Proficiency (SSP). Figure D-2 provides the reader with a sense of how NALCOMIS data will be used to populate a Work Center level report with individual OJT and NAMP training completion data. Task completion, as evidenced by MAF completion data and T&R Task sign-off, leads to Subsystem Skill proficiency which leads to System Skill Proficiency in accordance with T&R rules. The figure depicts only the 2000 Performance Level. There will be a separate record summary for each performance level. An overall Performance Level Summary that includes pertinent performance level completion data will also be created. The important point is that the summary will provide a Systems Level view of NAMP prerequisite status, Subsystem status, and System Skill Proficiency status.

7. Individual Training and Maintenance Leadership. Figure D-3 depicts the records summary concept for attaining Maintenance Leadership Designations. Conceptually, the individual must complete Designation-level prerequisites in accordance with the T&R. For example, to attain the CDI designation, individuals may be required to attain SSP in one or more Systems Skills, complete NAMP prerequisites above the Indoctrination level, and complete all CDI syllabus tasks.

Additional Qualifications and Designations may also be added to the display, but only mandatory and user-selected Qualifications and Designations are included in Department level readiness reports.

Power Plants Work Center Maintenance Leadership		Name EAS	Name EAS	Name EAS	Name EAS	Name EAS	Name EAS	Name EAS	Name EAS
CDQAR		2/15/2009							
SSP Prerequisites Complete		5/1/2008		1/20/2009					
NAMP Prerequisites Complete		10/22/2008		1/15/2009					
CDQAR Syllabus Specific Task		10/15/2008							
CDQAR Syllabus Specific Task		9/25/2008							
CDQAR Syllabus Specific Task		9/15/2008							
CDQAR Syllabus Specific Task		9/5/2008							
CDI		6/3/2008		1/27/2009					
SSP Prerequisites Complete		5/1/2008		1/20/2009					
NAMP Prerequisites Complete		5/15/2008		12/25/2008					
CDI Syllabus Specific Task		4/1/2008		8/10/2008					
CDI Syllabus Specific Task		4/2/2008		8/11/2008					
CDI Syllabus Specific Task		4/3/2008		8/12/2008					
CDI Syllabus Specific Task		4/4/2008		8/13/2008					
CDI Syllabus Specific Task		4/5/2008		8/14/2008					

Figure D-3.--Maintenance Leadership Record Summary

8. Individual Training and Support Equipment Licensing. Figure D-4 depicts the records summary concept for logging Support Equipment Licenses. These will not be imported from NALCOMIS but will be directly entered into the ASM training record by appropriate authority. Additional SE Licenses may be added to the display. Only mandatory and user-selected SE Licenses are included in Department level report.

Power Plants Work Center Unit-Critical Licensing		Name EAS	Name EAS	Name EAS	Name EAS	Name EAS	Name EAS	Name EAS	Name EAS
Nonenclature	Plain Language								
	Hob-Elec Power Plant	7/1/2007	7/2/2007	7/3/2007	7/4/2007	7/5/2007	7/6/2007	7/7/2007	7/8/2007
	Demin Cart								
	Tow Tractor	6/7/2007	6/8/2007	6/9/2007		6/11/2007	6/12/2007	6/13/2007	6/15/2007
	Lox Cart								
	Nitrogen Cart	8/15/2007		8/17/2007		8/19/2007		8/21/2007	
	Pettibone								
	CC Cart		10/1/2007	10/2/2007		10/4/2007	10/5/2007		
	NAN Cart								
	Hyd Power	9/14/2007							
	HEPP								
	Light Cart								

Figure D-4.--Licensing Record Summary

9. Work Center Readiness. Chapter 1 of each T&R contains a table that matches aircraft specific system skill requirements to respective Maintenance Divisions. However, to provide a valid and valuable training readiness picture for the Maintenance Department, more detail is required. Training standards (CMMR) must be created at the Work Center level for System Skill Proficiency, Maintenance Leadership, and Support Equipment Licensing. Figure D-5 presents a conceptual view of the Division Level Core Model Training Report (CMTR) that will satisfy this requirement.

MAINTENANCE CORE MODEL TRAINING REPORT (CMTR)										VMFA - 299		
AIRFRAMES Division; F/A-18AC										8/31/2009		
SYSTEM SKILLS	T-2	DIV READINESS		Show AIRF WCTL Details	Show HYD WCTL Details	Show CC WCTL Details	Show PROP WCTL Details	Show PHASE WCTL Details	Show ENVIRO WCTL Details	Show ALSS WCTL Details	Show Specific DTL	Show All
MAINT LDRSHIP	T-2	T-2		Hide All								
OPERATOR SE LIC	T-2											
SYSTEM SKILL PROFICIENCY (AIRFRAMES DIVISION: WORK CTR VIEW)		CMMR	ACMMR	AIRFRAMES DIVISION (WORK CENTER TRAINING LEVELS)							DIV TOTAL	SYSTEM SKILL SPECIFIC TRNG LVL
AIRFRAME (AIRF)	21	21	5	3	3	3	3	3	2	2	21	2.00
CREW STATION (CRSE)	18	18	5	3	3	3	3	3	4	3	18	2.00
ALIGNMENT/LAUNCHING SYSTEM (LNDRG)	16	16	5	5	3			3			16	2.00
DIRECTIONAL FLT CNTRLS/LIFT/DRAG SYS (ELTC)	17	17	5	5	3			4			17	2.00
ESCAPE SYSTEMS (ESCP)	13	13			3			4	3	3	13	2.00
AIR COND PRESSURIZATION/ICE CNTRL (RNVR)	15	15			3	3	3	3	3	3	15	2.00
HYDRAULIC AND PNEUMATIC POWER (HYD)	20	20	5	5	3	3	3	3			20	2.00
FUEL DISTRIBUTION SYSTEM (FUEL)	12	12	5		3			4			12	2.00
OXYGEN SYSTEM (OXYG)	12	12			3			3	3	3	12	2.00
MAINTENANCE LEADERSHIP		CMMR	ACMMR	AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	DIV TOTAL	ML SPECIFIC TRNG LVL
▷ QUALITY ASSURANCE REPRESENTATIVE (QAR)	6	6	2	2				2			6	2.00
▷ COLLATERAL DUTY QAR (CDQAR)	10	10	2	2	2	2	2	2	2	2	10	2.00
▷ COLLATERAL DUTY INSPECTOR (CDI)	14	14	2	2	2	2	2	2	2	2	14	2.00
▷ QUALITY ASSURANCE SRETY OBSERVER (QASO)	10	10	2	2			2	2		2	10	2.00
OPERATOR SE LICENSING		CMMR	ACMMR	AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	DIV TOTAL	SE LIC SPECIFIC TRNG LVL
▷ MOBILE-ELECTRIC POWER PLANT (MEPP)	21	21	3	3	3	3	3	3	3	3	21	2.00
▷ DEMINERALIZATION CART (DEMIN)	12	12	3	3	3	3	3	3			12	2.00
▷ TOW TRACTOR (TOW)	21	21	3	3	3	3	3	3	3	3	21	2.00
▷ LIQUID OXYGEN CART (LOX CART)	15	15	3	3				3	3	3	15	2.00
▷ NITROGEN CART (NITRO CART)	15	15	3	3				3	3	3	15	2.00
▷ PETTIBONE (PETT)	12	12	3	3			3	3			12	2.00
▷ CORROSION CONTROL CART (CC CART)	21	21	3	3	3	3	3	3	3	3	21	2.00
▷ NAN CART (NAN CART)	21	21	3	3	3	3	3	3	3	3	21	2.00
▷ HYDRAULIC POWER CART (HYD CART)	15	15	3	3	3	3	3	3			15	2.00
MAINTAINER AVAILABILITY				AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	TOTAL	
T/O				12	12	8	8	5	8	5	59	
On Hand				12	12	8	8	5	8	5	58	
% T/O				100%	100%	100%	100%	100%	100%	100%	100%	

Figure D-5.--Maintenance Division Level CMTR

10. Work Center Training Level Definitions. The CMMR for each System Skill, Leadership Qualification or Designation, and SE License is (according to community SMEs) the minimum requirement for the Work Center to perform two-shift maintenance for a sustained period of time. The Work Center Training Levels (WCTL) ranges from 1 through 4 and each value corresponds to a color code in accordance with Table D-2. Specific WCTL numeric values and thresholds are calculated automatically and are not visible to the user, but they are critical to the readiness report. Individuals interested in the behind-the-scenes calculations will find the formula used to determine WCTL thresholds in paragraph 22.

Table D-2.--WCTL Definitions and Color Codes

Work Center Training Levels (WCTL)	Definition	Color Codes
WCTL-1	Work Center exceeds CMMR. Capable of two-shift maintenance for sustained periods.	Blue
WCTL-2	Work Center meets CMMR. Capable of two-shift maintenance for sustained periods.	Green
WCTL-3	Work Center does not meet CMMR. Cannot meet sustained two-shift capability without assistance. Can provide one shift capability	Yellow
WCTL-4	Work Center does not meet CMMR. May or may not be able to provide one-shift capability without assistance.	Red

11. Work Center Training Levels and System Skill Proficiency. To build the Work Center readiness display with respect to System Skill Proficiency, each Work Center's individual training data is transferred from NALCOMIS or entered directly into ASM. The number of SSP individuals on-hand in the Work Center is displayed in the block that corresponds to the System Skill (row) and work center (column). Individuals will be counted for the Work Center to which they are assigned. The number of SSP individuals is then compared to Work Center SSP CMMR, delineated in the community T&R. Ultimately, the WCTL is calculated and the corresponding color code is applied as shown in Figure D-5.

SYSTEM SKILL PROFICIENCY (AIRFRAMES DIVISION: WORK CNTR VIEW)	CMMR	ACMMR	AIRFRAMES DIVISION (WORK CENTER TRAINING LEVELS)							DIV TOTAL	SYSTEM SKILL SPECIFIC TRNG LVL
			AIRF	HYD	CC	PROP	PHASE	ENVIR	ALSS		
			AIRFRAME (AIRF)	21	21	5	3	3	3		
CREW STATION (FUSE)	18	18	5		3		3	4	3	18	2.00
LIGHTING/LAUNCHING SYSTEM (LNBG)	16	16	5	5	3		3			16	2.00
BIDIRECTIONAL ELT CNTLS/LIFT/DRAG SYS (ELTC)	17	17	5	5	3		4			17	2.00
ESCAPE SYSTEMS (ESCP)	13	13			3		4	3	3	13	2.00
AIR COND PRESSURIZATION/ICE CNTRL (ENVR)	15	15			3	3	3	3	3	15	2.00
HYDRAULIC AND PNEUMATIC POWER (HYD)	20	20	5	5	3	3	4			20	2.00
FUEL DISTRIBUTION SYSTEM (FUEL)	12	12	5		3		4			12	2.00
OXYGEN SYSTEM (OXYG)	12	12			4		2	4	2	12	2.00

Figure D-5.--Work Center Training Levels and System Skill Proficiency

12. Work Center Training Levels and Maintenance Leadership. To build the readiness display with respect to Maintenance Leadership, each Work Center's individual training data is transferred from NALCOMIS (or entered directly) and is then compared to the T&R Maintenance Leadership CMMR at the Work Center level. Since attaining Maintenance Leadership Qualifications and Designations requires more than OJT, the fulfillment of NAMP requirements or other syllabus prerequisites must be entered into ASM manually. In the same manner described in the WCTL-SSP section, the number of Maintenance Leaders on hand in the Work Center is displayed in the block that corresponds to the Maintenance Leadership Qualification or Designation under inspection. Individuals count for the Work Center to which they are assigned. This number of Maintenance Leaders is then compared to the Work Center ML CMMR, delineated in the community T&R and a WCTL is calculated. The corresponding color code is applied as shown in Figure D-6.

13. Non-reportable Maintenance Leadership Designations. Since Work Centers have internal Qualification and Designation requirements that may not require reporting outside the Department, these may be added to the report and marked for non-reporting. Cross-hatches indicate the specific Qualification or Designation has been user-selected as not required for readiness reporting outside the Department.

MAINTENANCE LEADERSHIP	CMMR	ACMMR	AIRF	HYD	CC	PROP	PHASE	ENVIR	ALSS	DIV TOTAL	ML SPECIFIC TRNG LVL
# QUALITY ASSURANCE REPRESENTATIVE (QAR)	6	6	2	2			2			6	2.00
# COLLATERAL DUTY QAR (CDQAR)	10	10	2	2	2		2		2	10	2.00
# COLLATERAL DUTY INSPECTOR (CDI)	14	14	2	2	2	2	2	2	2	14	2.00
# QUALITY ASSURANCE SAFETY OBSERVER (QASO)	10	10	2	2		2	2		2	10	2.00

Figure D-6.--Work Center Training Levels and Maintenance Leadership

14. Work Center Training Levels and Support Equipment Licensing. To build the readiness display with respect to Support Equipment Licensing, each Work Center manually logs its licensing. In the same manner described in the WCTL-SSP section (paragraph 11), the number of SE Licensed individuals on-hand in the Work Center is displayed in the block that corresponds to the SE License under inspection. Individuals count for the Work Center to which they are assigned. This number is then compared to the Work Center SE LIC CMMR, delineated in the community T&R and a WCTL is calculated. The corresponding color code is applied as shown in Figure D-7.

OPERATOR SE LICENSING	CMMR	ACMMR	AIRP	HYD	CC	PROP	PHASE	ENVIRO	ALSS	DIV TOTAL	SE LIC SPECIFIC TRNG LVL
▣ MOBILE-ELECTRIC POWER PLANT (MEPP)	21	21	3	3	3	3	3	3	3	21	2.00
▣ DEMINERALIZATION CART (DEMIN)	12	12	3	3	3	3	3	3	3	12	2.00
▣ TOW TRACTOR (TOW)	21	21	3	3	3	3	3	3	3	21	2.00
▣ LIQUID OXYGEN CART (LOX CART)	15	15	3	3			3	3	3	15	2.00
▣ NITROGEN CART (NITRO CART)	15	15	3	3			3	3	3	15	2.00
▣ PETTIBONE (PETT)	12	12	3	3		3	3	3	3	12	2.00
▣ CORROSION CONTROL CART (CC CART)	21	21	3	3	3	3	3	3	3	21	2.00
▣ NAN CART (NAN CART)	21	21	3	3	3	3	3	3	3	21	2.00
▣ HYDRAULIC POWER CART (HYD CART)	15	15	3	3	3	3	3	3	3	15	2.00

Figure D-7.--Work Center Training Levels and Support Equipment Licensing

15. Non-reportable SE Licenses. Since Work Centers have internal licensing requirements that do not require reporting outside the Department, these may be added to the report and marked for non-reporting. Cross-hatches indicate the specific SE license has been user-selected as not required for readiness reporting outside the Department.

16. Maintenance Division CMTR Specific Training Levels. The average of all WCTLs in each category (SSP, ML, SE LIC) is placed in the far right column labeled "System Skill Specific Training Level," "ML Specific Training Level," or "SE LIC Specific Training Level." At the Division level, the numerical/color coded system has been adjusted to ensure that minor shortages in a single work center will not unduly skew the Division readiness display. See Table D-3.

Table D-3.--Maintenance Division CMTR Specific Training Level Definitions

Specific Training Level System Skill Maintenance Leadership SE Licensing	Definition	Color Codes
1.0<2.3	Division meets or exceeds CMMR in a majority of Work Centers. Capable of two-shift maintenance for sustained periods.	Green
2.3<=3.0	Division does not meet CMMR in one of more Work Centers. May require assistance to meet sustained two-shift capability. Can provide one shift capability.	Yellow
>3.0-4.0	Division does not meet CMMR in majority of Work Centers. May require assistance to provide one-shift capability.	Red

17. Division CMMR vs Work Center CMMR. In some cases, an over-abundance of trained individuals in one Work Center may appear to balance a shortage in another Work Center(s). The Work Center shortages will still be indicated by the color coding within the WCTL

section of the report and the Specific Training Level will be based on the Division WCTL average.

18. Division System Skill Training Level. Once all Specific Training Levels have been determined for each System Skill, the CMTR provides a single training level assessment for each area (SSP, ML, SE LIC). The Division Level training readiness assessment for each area is shown in the upper left hand portion of the report and appears as shown in Figure D-8.

<b>SYSTEM SKILLS</b>	<b>T-3</b>	<b>DIV READINESS</b>  <b>T-2</b>
<b>MAINT LDRSHP</b>	<b>T-2</b>	
<b>OPERATOR SE LIC</b>	<b>T-2</b>	

Figure D-8.--Overall Division Training Level

19. The System Skill Training Level color code will match the same color as the lowest Specific Training Level of all Division System Skills. In Figure D-9, the lowest Specific System Skill Training Level corresponds to the Alighting/Launching System. This matches the System Skills Division Training Level in Figure D-8.

SYSTEM SKILL PROFICIENCY (AIRFRAMES DIVISION WORK CTR VIEW)	CMMR	ACMMR	AIRFRAMES DIVISION (WORK CENTER TRAINING LEVELS)								DIV TOTAL	SYSTEM SKILL SPECIFIC TRNG LVL
			AIRF	HYD	CC	PROP	PHASE	ENVTR	ALSS			
AIRFRAME (AIRF)	21	21	4	3	1	3	2	2	7	22	2.43	
CREW STATION (FUSE)	18	18	5	3	3	3	4	3	18	2.00		
ALIGNING/LAUNCHING SYSTEM (LNDC)	16	16	5	3	3	3	3	3	14	2.50		
BIDIRECTIONAL FLT CNTRLS/LIFT/BRAG SYS (FLTC)	17	17	5	5	3	3	3	3	16	2.25		
ESCAPE SYSTEMS (ESCP)	13	13	3	3	3	3	4	2	3	12	2.25	
AIR COND PRESSURIZATION/ICE CNTRL (ENVR)	15	15	2	2	3	3	3	3	3	14	2.20	
HYDRAULIC AND PNEUMATIC POWER (HYD)	20	20	5	5	3	3	4	3	3	20	2.00	
FUEL DISTRIBUTION SYSTEM (FUEL)	12	12	5	2	2	4	3	3	3	11	2.33	
OXYGEN SYSTEM (OXYG)	12	12	3	3	3	3	3	3	3	12	2.00	

Figure D-9.--System Skill Proficiency Training Readiness Evaluation

20. Although the majority of System Skills above are displayed "green," any shortages in skills that could reduce unit effective are of high interest. Therefore in the above example, the yellow color code drives the Division Training Level. In general terms, Table D-4 delineates the color codes and area specific (SSP, ML, SE LIC) Training Levels.

Table D-4.--Maintenance Division CMTR Specific Training Level Definitions

Division Training Level System Skills Maintenance Leadership SE Licensing	Definition	Color Codes
T-2	Division meets two-shift capability across System Skills, Maintenance Leadership, and SE Licensing areas.	Green
T-3	Division can not meet two-shift requirement without assistance due to shortages of skilled individuals across one or more areas of System Skills, Maintenance Leadership, and SE Licensing.	Yellow
T-4	Division does not meet CMMR in majority of Work Centers. May or may not be able to provide one-shift capability without assistance.	Red

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21. Maintenance Leadership and SE Licensing Training Levels. The calculations for the Division ML and SE Licensing Training Levels are identical to that used for Division System Skill Training Level.

22. Overall Division Training Level (DTL) and Relative Weighting. In order to ensure that a realistic training readiness rating is provided at the Division Level, a weighting scale has been applied to the "Overall Division Training Level." The relative weighting scale will ensure that the most important aspects of aircraft maintenance training carry the most weight. Table D-5 provides the relative weighting used to determine overall Division Training Readiness.

Table D-5.--Overall Division Training Readiness - Relative Weighting

Division Training Area	Relative Weighting
System Skill Proficiency	3
Maintenance Leadership	6
SE Licensing	1

23. Work Center Training Level Calculation. The calculation to determine training levels is based upon the CMMR for each area of concern at the Work Center level. Work Centers can produce more than the CMMR without penalty. In fact, a skilled Work Center supervisor recognizes the need to produce more than the standard to ensure his Work Center is properly manned when the inevitable turnover and loss of skilled personnel occurs. WCTL-2 is the standard. The CMTR applies a mathematical calculation to determine what numbers of trained or SE licensed individuals equate to WCTL-1 through WCTL-4.

Note

Units do not need to do any calculations. All WCTL thresholds and color codes are pre-calculated based upon T&R CMMR values and are resident within the Maintenance Core Model Training Report.

24. CMTR WCTL Calculation. As described above, the CMMR is the standard across each category of training. If met by all Work Centers in a Division, it should ensure the ability to sustain two-shift maintenance at each Work Center and within the whole Division. Any achievement above that standard allows a Work Center/Division more flexibility in scheduling and work flow. Achievement below the standard may prohibit the sustainment of two-shift maintenance.

a. The following calculations provide the method with which we arrive at most of the WCTL values. It should be noted that when CMMR values are low (3 or less), the calculation is abandoned and common sense was applied.

b. Historically, 70% Combat Readiness Percentage (CRP) equated to the SORTS T-2 Level of training readiness. Today, CMMR has replaced CRP and is therefore considered the new T-2. Further, if CMMR = 70%, this leads to the question, "70% of what?" We identify the "what" as the "CMMR Baseline." Table D-6 displays a generic picture of WCTL threshold values for all unit SSP, ML, and SE Licensing.

Table D-6.--Work Center Training Level Relationship to CMMR

Work Center Training Level (WCTL)	Work Center exceeds CMMR. Capable of two-shift maintenance for sustained periods.	CMMR in Terms of System Skill Proficiency, Maintenance Leadership, or SE Licensing
WCTL-1	Work Center exceeds CMMR. Capable of two-shift maintenance for sustained periods.	Meets or exceeds 85% of CMMR Baseline
WCTL-2	Work Center meets CMMR. Capable of two-shift maintenance for sustained periods.	Meets or exceeds 70% CMMR Baseline
WCTL-3	Work Center does not meet CMMR. Cannot meet sustained two-shift capability but exceeds one shift capability.	Meets or exceeds 55% CMMR Baseline
WCTL-4	Work Center does not meet CMMR. Unable to sustain two-shift capability.	Less than 55% CMMR Baseline

Step 1. Identify CMMR by System Skill, Maintenance Leadership position, or SE Licensing requirement by reviewing the T&R.

Step 2. Calculate CMMR Baseline for each System Skill, Maintenance Leadership position, or SE License. Example. If Airframes System Skill CMMR = 6 (6 = T-2 = 70%) we calculate the "CMMR Baseline" using the following formula:

$$\begin{aligned} \text{If} & \quad \text{CMMR} = .70x \\ \text{Then} & \quad \text{CMMR}/.70 = x \end{aligned}$$

$$\text{Therefore} \quad 6 = .70x$$

$$6/.7 = 8.57 \text{ (CMMR Baseline for this particular System Skill)}$$

Step 3. Identify Appropriate WCTL Thresholds for each System Skill, Maintenance Leadership position, or License using the calculated CMMR Baseline.

Table D-7.--Work Center Training Level Calculations (Example)

Work Center Training Level (WCTL)	Work Center Training Threshold Calculation for System Skills Airframe System CMMR= 6	Color Code
WCTL-1	$\geq .85(8.57) = 7.29$	Blue
WCTL-2	$\geq .70(8.57) = 6.00$	Green
WCTL-3	$\geq .55(8.57) = 4.71$	Yellow
WCTL-4	$< .55$	Red

Step 4. Round-off the WCTL Thresholds for each System Skill, Maintenance Leadership position, or License to the nearest whole number using standard rounding practices.

25. Work Center Training Level Details. At the Division Level, the upper right side of the Core Model Training Report contains symmetric square buttons that display either "SHOW" or "HIDE" CMTL Details (See Figure D-10).

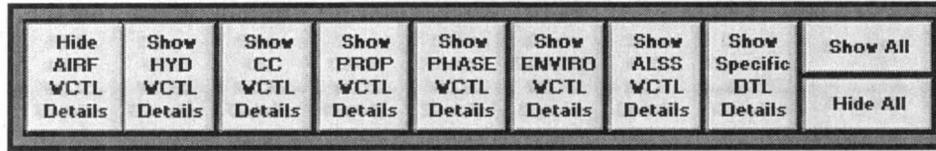


Figure D-10.--CMTR Work Center Training Level Detail Activation Buttons

26. WCTL Details. Upon user activation (press the button), the CMTR display will include derived WCTL threshold values used drive the WCTL color codes and Division/Department level T-Level values. See Figure D-10.

	AIRF WCTL DETAILS						
	CMMR	BASE-LINE	WCTL-1	WCTL-2	WCTL-3	WCTL-4	WCTL
SYSTEM SKILL PROFICIENCY (AIRFRAMES DIVISION: WORK CNTR VIEW)							
AIRFRAME (AIRF)	5	7	6	5	4	<4	2
CREW STATION (FUSE)	5	7	6	5	4	<4	2
ALIGHTING/LAUNCHING SYSTEM (LNDG)	5	7	6	5	4	<4	2
DIRECTIONAL FLT CNTRLS/LIFT/DRAG SYS (ELTC)	5	7	6	5	4	<4	2
ESCAPE SYSTEMS (ESCP)	3	4	4	3	2	<2	4
AIR COND PRESSURIZATION/ICE CNTRL (ENVR)	3	4	4	3	2	<2	4
HYDRAULIC AND PNEUMATIC POWER (HYD)	5	7	6	5	4	<4	2
FUEL DISTRIBUTION SYSTEM (FUEL)	5	7	6	5	4	<4	2
OXYGEN SYSTEM (OXYG)	2	3	3	2	2	<2	4

Figure D-10.--Detail View of CMTR Thresholds

27. Maintenance Department Core Model Training Report. The Department level training readiness report is fed by each of the Division level reports. In Figure D-11, the Airframes Division Level training readiness display indicates some shortages in Systems Skills and Maintenance Leadership. The upper left corner of the report indicates a T-3 training level for both of these areas and an overall Division Training Level of T-3.

MAINTENANCE CORE MODEL TRAINING REPORT (CMTR)				VMFA - 299								
AIRFRAMES Division; F/A-18AC				6/31/2009								
SYSTEM SKILLS	T-3	DIV READINESS		Show AIRF VCTL Details	Show HYD VCTL Details	Show CC VCTL Details	Show PROP VCTL Details	Show PHASE VCTL Details	Show ENVIRO VCTL Details	Show ALSS VCTL Details	Show Specific DTL Details	Show All
MAINT LDRSHIP	T-3	OPERATOR SE LIC	T-2	Hide All								
AIRFRAMES DIVISION (WORK CENTER TRAINING LEVELS)												
SYSTEM SKILL PROFICIENCY (AIRFRAMES DIVISION: WORK CNTR VIEW)	CMMR	ACMMH	AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	DIV TOTAL	SYSTEM SKILL SPECIFIC TRNG LVL	
AIRFRAME (AIRF)	21	21	5	3	3	3	3	2	2	21	2.00	
CREW STATION (FUSE)	10	10	4	3	3	3	3	3	3	16	2.40	
ALIGNING/LAUNCHING SYSTEM (LNDG)	16	16	5	5	3	3	3	3	3	16	2.00	
DIRECTIONAL FLT CNTRLS/LIFT/DRAG SYS (FLTC)	17	17	3	5	3	3	3	3	3	15	2.50	
ESCAPE SYSTEMS (ESCP)	18	18	3	3	3	3	3	3	3	18	2.00	
AIR COND PRESSURIZATION/ICE CNTRL (ENVR)	15	15	3	3	3	3	3	3	3	15	2.00	
HYDRAULIC AND PNEUMATIC POWER (HYD)	20	20	5	5	3	3	3	3	3	20	2.00	
FUEL DISTRIBUTION SYSTEM (FUEL)	12	12	5	3	3	3	3	3	3	12	2.00	
OXYGEN SYSTEM (OXYG)	12	12	3	3	3	3	3	3	3	12	2.00	
MAINTENANCE LEADERSHIP												
	CMMR	ACMMH	AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	DIV TOTAL	ML SPECIFIC TRNG LVL	
QUALITY ASSURANCE REPRESENTATIVE (QAR)	6	6	2	2	2	2	2	2	2	6	2.00	
COLLATERAL DUTY QAR (CDQAR)	10	10	2	2	2	2	2	2	1	9	2.40	
COLLATERAL DUTY INSPECTOR (CDI)	11	11	2	1	2	2	2	2	2	13	2.29	
QUALITY ASSURANCE SAFETY OBSERVER (QASO)	10	10	2	2	2	2	2	2	2	10	2.00	
OPERATOR SE LICENSING												
	CMMR	ACMMH	AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	DIV TOTAL	SE LIC SPECIFIC TRNG LVL	
MOBILE-ELECTRIC POWER PLANT (MEPP)	21	21	3	3	3	3	3	3	3	21	2.00	
DEMINERALIZATION CART (DEMIN)	12	12	3	3	3	3	3	3	3	12	2.00	
TOW TRACTOR (TOW)	21	21	3	3	3	3	3	3	3	21	2.00	
LIQUID OXYGEN CART (LOX CART)	15	15	3	3	3	3	3	3	3	15	2.00	
HYDRONIC CART (HYDRONIC CART)	12	12	3	3	3	3	3	3	3	12	2.00	
PETTIBONE (PETT)	12	12	3	3	3	3	3	3	3	12	2.00	
CORRECTION CONTROL CART (CC CART)	21	21	3	3	3	3	3	3	3	21	2.00	
NBN CART (NBN CART)	21	21	3	3	3	3	3	3	3	21	2.00	
HYDRAULIC POWER CART (HYD CART)	15	15	3	3	3	3	3	3	3	15	2.00	
MAINTAINER AVAILABILITY												
	AIRF	HYD	CC	PROP	PHASE	ENVIRO	ALSS	TOTAL				
T/O	12	12	8	8	5	5	5	58				
On Hand	12	12	8	8	5	5	5	58				
% T/O	100%	100%	100%	100%	100%	100%	100%	100%				

Figure D-11.--Division Training Level Example

28. In Figure D-12, the Maintenance Department Level Training Report indicates:

a. Airframes is experiencing some challenges within the Division in terms of Systems Skills, however, the Department overall is in good shape (T-2).

b. Both Airframes and Avionics Divisions are experiencing some challenges with regard to Maintenance Leadership but the rest of the Divisions look good.

c. Department overall is in great shape with respect to meeting the T&R SE Licensing CMMR standard.

MAINTENANCE DEPARTMENT CORE MODEL TRAINING REPORT (CMTR)									
F-18AC Squadron									
SYSTEM SKILLS	T-3	DEPT TRAINING READINESS			VMFA - 299				
MAINT LDRSHP	T-4	T-3			2/3/2009				
OPERATOR LIC	T-2								
DIVISION TRAINING READINESS									
	QA DTL	MC DTL	MA DTL	AF DTL	AVI DTL	LINE DTL	ORD DTL	DEPT CHTL	
System Skills	2	2	3	2	2	2	2	2.57	
Maintenance Leadership	2	2	3	4	2	2	2	3.00	
Operator Licensing	2	2	2	2	2	2	2	2.00	
MAINTAINER AVAILABILITY									
	QA	MC	MA	AF	AVI	LINE	ORD	TOTAL	
T/O	12	8	6	58	45	50	40	219	
On Hand	12	8	6	58	45	50	40	219	
% T/O	100%	100%	100%	100%	100%	100%	100%	100%	

Figure D-12.--Maintenance Department Training Readiness Report Example

29. Maintenance Department Training Level and Relative Weighting. Just as in the Overall Division Training Level calculation, to ensure a realistic training readiness rating is provided at the Department Level, a weighting scale has been added to the calculation. In this way, we ensure that issues surrounding Maintenance Leadership have a greater overall impact than System Skill Proficiency and SE Licensing. Table D-8 provides the relative weighting used to determine Department Training Readiness.

Table D-8.--Department Training Readiness - Relative Weighting

Division Training Area	Relative Weighting
System Skill Proficiency	3
Maintenance Leadership	6
SE Licensing	1

30. Drill Down Capability. Once implemented, users shall be able to click on problem areas to drill down to lower level reports. For example, a user might want to press the tile marked "AF DTL" to investigate the training status of the Airframes Division. The display he would see would be the Division Level Report as shown in Figure D-11.

31. Maintainer Availability. This section of the CMTR allows Maintenance Departments/Divisions/Work Centers to gain some visibility of personnel availability against the T/O requirement. The %T/O is simply the O/H divided by the T/O. On many occasions, personnel shortages directly contribute to training deficiencies and lend some perspective to the overall training story.