# **2007 Marine Aviation Plan**

1. Bart

DC Aviation June 2007



#### DEPARTMENT OF THE NAVY COMMANDANT OF THE MARINE CORPS HEADQUARTERS MARINE CORPS 3000 MARINE CORPS PENTAGON WASHINGTON, DC 20350-3000

- IN REPLY REFER TO:

1 June 2007

From: Deputy Commandant for Aviation To: Distribution List

Subj: THE 2007 MARINE AVIATION PLAN

Encl: (1) 2007 Marine Corps Aviation Plan (AvPlan)

1. <u>Purpose</u>. The AvPlan is a consolidated action plan that provides a graphic overview of Marine Aviation total force organization, aviation readiness, and planned organizational/ aircraft/equipment transitions over the next ten year period. The AvPlan shall be revised semi-annually in order to update Marine Aviation policy and program decisions that are changed and modified.

2. <u>Background</u>. This version of the AvPlan supercedes all previous versions.

3. Action. Forward all recommended changes to the Deputy Commandant for Aviation (APP-3).

4. <u>Reserve Applicability</u>. This AvPlan is applicable to the Marine Corps Reserve.

Deputy Commandant For Aviation



### Message from Deputy Commandant for Aviation:

Marine Aviation is at its highest operational level since the Vietnam War. In 2006, Marine Air flew over 120,000 combat hours in support of operations in Afghanistan and Iraq. These accomplishments are the direct result of the daily sacrifice and dedication of our Marines and Sailors. Equally important are the challenges Marine Aviation faces in transforming the force on schedule within fiscal constraints. This Aviation Plan (AvPlan), in support of our country's national strategies, constitutes our roadmap for navigating through these challenges as we transform Marine aviation for the future.

The 21<sup>st</sup> century has ushered in an era of warfare where enemies routinely attack us by asymmetric means and attempt to undermine our efforts by exploiting seams in our operational and tactical concepts. As a result, the Marine Corps is more focused than ever on providing platforms and capabilities that work in concert to fight irregular warfare while maintaining conventional capabilities. Several new concepts are evolving to meet the challenges of an asymmetric enemy and an escalating environment of anti-access and area denial. Accordingly, the Commandant's vision for Marine Aviation remains clear: an all short takeoff and vertical landing (STOVL) force with unmatched expeditionary capabilities and operational reach. As a total force Aviation Combat Element (ACE) composed of four Marine Aircraft Wings, Marine Air is uniquely organized, equipped, and trained to conduct Expeditionary Maneuver Warfare while maintaining operational flexibility. We fully realize that this vision requires we succeed in the present while preparing for the future.

The stress on our units, personnel, and equipment supporting the Global War on Terror (GWOT) is significant. Currently, Marine helicopter squadrons, support squadrons, control groups, and unmanned aerial vehicle (UAV) squadrons (VMUs) are at or slightly above a 1 to 1 deployment tempo.

As the Corps expands to 202,000 Marines, Aviation will likewise expand to achieve CMC's goal of a Balanced Force.

Higher deployment tempo and the corresponding increased difficulty in maintaining these over-utilized legacy systems demand we transition to our new aircraft and systems as planned and on schedule. To help guide our transitions, the AvPlan describes how we will utilize new platforms to mold the future ACE into a more efficient, balanced fighting force than we have today. Integral to the AvPlan are the numerous and critical transition task forces (TTFs) that function as proactive and fully engaged organizations to develop effective plans for transition. These TTFs, with representation from all key stakeholder groups, analyze in detail the necessary changes in doctrine, organization, training, materiel, logistics, personnel, facilities and timelines required to support transitions. Over the past six months, initial deliveries of our first production H-1 aircraft, successful transition of our first two Fleet MV-22 squadrons, and continued success in concurrent development of the Joint Strike Fighter were all outcomes of the highly detailed planning and oversight conducted by these TTFs. Such collaborative efforts will continue to ensure today's plans are consistent, relevant, affordable, and delivered on schedule.

In June 2005, the Aviation Department of Headquarters Marine Corps (HQMC) developed a proposed "Aviation Transition Strategy" to rebalance and restructure Marine Aviation from 2007-2015. This Strategy is now integrated into the AvPlan, which reaches beyond the 2015 timeline. The primary goals of this new transition strategy are to better balance rotary wing and TacAir structure, to rebalance Active Component and Reserve Component aviation structure, and to increase the warfighting tables of organization from the squadron to the wing level. To date, the Commandant of the Marine Corps has approved this transition strategy through 2009. The plan for 2010-2012 is currently under review by HQMC and all Marine Forces (MARFORs).

I am extremely proud of each of you in Marine Aviation. Your exceptional professionalism, resourcefulness, and commitment continue to ensure our success in bringing stability, security, and hope to troubled regions around the globe. I am dependent on you to apply that same level of effort toward your understanding of the future of Marine Aviation detailed in this "touchstone" document. These are dynamic and demanding times for aviation and we will prevail.





# **AVPLAN Table of Contents**

Section 1 Marine Aviation Readiness	1-1 to 1-9
Section 2 Marine Organizational Structure	2-1 to 2-14
Section 3 Aviation Manpower	3-1 to 3-14
Section 4 Marine Aviation Command & Control System	4-1 to 4-13
Section 5 Marine Rotary Wing/Tiltrotor Aviation Plan	5-1 to 5-11
Section 6 Marine Fixed Wing Aviation Plan	6-1 to 6-13
Section 7 Marine Unmanned Aerial Vehicle (UAV) Plan	7-1 to 7-3
Section 8 Marine Rotary Wing/Tiltrotor ASE Plan	8-1 to 8-4
Section 9 Weapons and Munitions Plan	9-1 to 9-3
Section 10 Marine Aviation Aircrew Training System (ATS)	10-1 to 10-15
Section 11 Marine Aviation Logistics Plan	11-1 to 11-10
Section 12 Marine Aviation Ground Support (AGS) Plan	12-1 to 12-3
Section 13 Marine Corps Air Station Facilities Upgrade/MILCON Plan	13-1 to 13-6
Section 14 Glossary of Terms and Acronyms	14-1 to 14-9

# Section 1 --- Aviation Readiness

Marine Corps Aviation Training and Readiness Program	1-2
Marine Corps Flying Hour Program	1-3
Core Competency Resource Model and Sortie Based Training Program	1-4
Automated Training System (M-SHARP)	1-5
2007 USMC FHP Information	1-6
Marine Corps Aircraft Inventory	1-8
Marine Aviation Transition	1-9

### **Aviation Readiness**

Marine Aviation exists to respond to operational tasking (GWOT, GNFPP, FDNP, UDP and OPLANs) and its effectiveness is directly related to available aircraft inventory and to Marine Aviation's ability to train core and mission skill proficient crews, in a standardized manner, and at levels commensurate with the aircraft community Mission Essential Task List output standards.

#### Aviation Training and Readiness (T&R) Program (Today)

NAVMC 3500.14.A outlines the training standards, regulations and policies regarding the training of Marine Corps aircrews and Command and Control personnel. The Aviation T&R Program implements a comprehensive, capabilities-based training system. This system provides core skill proficient crews and combat leaders to MAGTF and combatant commanders. The Marine Aviation T&R Program aligns with DoD and Joint requirements and guidelines and prescribes training standards required to fulfill operational requirements of combatant commanders while capturing T&R resource requirements for HQMC planning and budgeting. The Marine Aviation T&R Program position in the overall operational and support system is depicted below.



The foundation of every Marine Aviation T&R is the Commandant of the Marine Corps-approved Core Competency Model. The Core Competency Model establishes the basic structure around which each T&R program is created and links the following:

- Mission Statement
- Mission Essential Task List
- Unit Core Capability Statement (MET Output Standards)
- Core Skill Proficiency (CSP) and Combat Leadership (CL) Requirements (Core Model Minimum Requirement (CMMR)).

#### Defense Readiness Reporting System (DRRS)

In 2000, the DoD established DRRS to make readiness reporting more objective, timely, and accurate. The DRRS initiative provides a "capabilities-based, adaptive, near real-time readiness reporting system" and requires a demonstrable link between Mission Essential Tasks (METs) and readiness reporting. In 2004, the Under Secretary of Defense (OUSD) directed each organization to execute both its specific mission essential tasks "to standard" and to execute its Mission Essential Task List (mission objective) in its entirety and further directed Commanders to assess the ability of the unit to execute specific mission essential tasks, under specified conditions, as a "Yes," a "Qualified Yes," or a "No" in accordance with established criteria.

#### Aviation Training and Readiness (T&R) Program (Future)

In response to the DRRS initiative, TECOM(ATB) has undertaken an effort to develop adjustments to the T&R Program in order to provide a clearer link between T&R event proficiency, the T&R Core Model and MET accomplishment, and required readiness reporting under the DRRS initiative.

In order to report readiness in accordance with DRRS the following actions should to be taken in the T&R Program:

- •Update T&R METLs with standardized Core METLs
- •Development of the Mission Skills concept
- •Creation/Update of Core/Mission Skills-MCT Matrix
- •Creation of T&R specific Collective Training Events/Standards
- •Creation and approval of a T&R Readiness Chapter
- •Creation/Update/Integration of Core Model Training Report

#### •<u>Update T&R Core METLs with standardized Marine Corps Tasks</u> To date, all aviation communities have established draft Core METLs to replace T&R Mission Essential Tasks. Once approved by MARFORs and DC/AVN, standardized Core METLs shall be incorporated upon next scheduled T&R review.

#### <u>Development of the Mission Skills Concept</u>

The F/A-18 and AV-8B communities have established a framework, within T&R Program Manual guidance, where Core Skills are comprised of essential events that act as enablers for higher order skills or "Mission Skills." Mission Skills represent those skills that most closely resemble the METs. It is the Mission Skills to MET correlation where a commander can best gauge the readiness of his unit to accomplish a specific MET. With this in mind, it makes sense for other aviation communities who are governed by the T&R Program, to evolve their community T&Rs to this Mission Skills construct.

#### <u>Creation/Update of Core/Mission Skills-MCT Matrix</u>

The Core Skills-MET matrix was originally created to demonstrate traceability between Core Skills and METs. In the future, the matrix will serve a valuable role in linking Core and Mission skills to Unit METs, thus laying a firm foundation for both training program structure and accurate readiness reporting.

MCTS	CORE SKILLS							MISSION SKILLS				
	FAM	AAR	AS	NS	AA	LAT	CAS	AR	SCAR	AAW	SEAD	AI
CAS	х	X	Х	х		Х	Х					
AR	х	X	Х	х		Х		х				
SCAR	Х	X	Х	х					Х			
AAU	Х	X	Х	Х	Х	Х				Х		
SEAD	х	X	Х	х							X	
AI	Х	Х	Х	х		Х						х
AAW (AD)	Х	Х	Х	Х	Х	Х				Х		

•Creation of T&R specific Collective Training Events/Standards Future DRRS training readiness assessments will allow a commander the ability to "certify" his unit's ability to perform to a given MET output standard. This "certification" will be incorporated into the DRRS T-Level assessment through collective training events (CTE). Therefore, the T&R Program must include the structure and policy to incorporate these CTEs and accompanying standards. Collective Training Standards (CTS) define the performance level to which a unit must execute the task while the "MET output standard" prescribes the frequency (in terms of sorties or operational coverage) to which the unit must execute the task. Once fully developed, CTS's will not only provide the foundation for Core MET output execution but will also pave the way for a new system of Unit Evaluation to replace MCCRES. •<u>Creation and approval of a T&R Program Readiness Chapter</u> Marine Aviation shall replace the "average of individual Combat Readiness Percentage" based readiness metric with MET-based reporting. The T&R Program must clearly communicate the method by which the T&R Program will generate satisfactory readiness reports while preserving the concepts of core capability, event proficiency, and combat leadership. To accomplish this task, TECOM(ATB) is writing a readiness chapter that will describe T&R metrics and analysis used for the aviation community DRRS T-Level assessment.

•<u>Creation/Update/Integration of Core Model Training Report (CMTR)</u> In response to the DRRS initiative, TECOM(ATB) has updated the original CMTR and has created a working model that fulfills DRRS guidance. Once the methodology is approved, Commanding Officers will be provided with access to a training level assessment tool for use in both planning for future T&R training events and in DRRS reportage.



# Marine Corps Flying Hour Program (FHP)

# MCO 3125.1A Marine Corps Flying Hour Program Management dtd 04 April 2005.

Provides policy, guidance, and responsibilities for the execution of the Marine Corps FHP. Marine Corps flight operations management is composed of two elements; the Sortie Based Training Program (SBTP) and the Flying Hour Program. The SBTP is the commander's execution tool and the FHP is the budgeting tool. All commanders shall utilize all available resources to ensure their commands are trained per the current editions of the appropriate Type/Model/Series T&R manuals. Key sections of the order include:

Marine Corps Flying Hour Programs

Marine Corps Unit Core Competency Resource Model (CCRM) guidelines Marine Corps Sortie Based Training Program Marine Corps FHP Reporting

#### Marine Corps Flying Hour Programs

Tactical Aircraft (TACAIR) FHP: all deployable Active Component (AC) Fixed Wing, Rotary Wing and Tilt-Rotor squadrons. Reserve Component (RC) Squadrons that are activated will be also funded from the gaining MARFOR TACAIR FHP.

Fleet Air Training (FAT) FHP: all Marine Corps Fleet Replacement Squadrons (FRS).

Fleet Air Support (FAS) FHP: all deployable and non-deployable AC Operational Support Aircraft (OSA), SAR, HMX-1, and VMX-22 aircraft.

Reserve FHP: all deployable and non-deployable RC FW/RW/TR squadrons and OSA aircraft.

#### Marine Corps FHP Reporting

Standardization of USMC flying hour reporting is essential to accurately track FHP execution which is used for future FHP planning and programming decisions. The goal of standardized reporting is to accurately track execution of hours by Training, Support, Operational, and Contingency categories. Enclosure 5 of MCO 3125.1A outlines standardized procedures.

#### Marine Corps FHP Funding

USMC Aviation flying hours are funded through O&M,N, and HQMC Aviation provides the required inputs to N43 (two years before the execution year) in order to ensure adequate funding levels support required readiness levels. Using the output of the CCRM, flight hour requirements for each T/M/S squadron are modeled and then consolidated for all USMC squadrons in aggregate. Because USMC Aviation force structure will change with the growth in its number of squadrons in order to meet CMC intent for the future, the associated flying hour requirements will also grow accordingly. As new units stand up according to the AVPlan, funding levels in O&M,N will increase to meet the demand of the new units.

#### Core Competency Resource Model

The CCRM directly links the FHP, T&R syllabi, and readiness reporting (SORTS). The CCRM generates annual flying hour and sortie requirements (including Training, Support, or Operational sorties) for maintaining selected T-Level readiness ratings. Deputy Commandant Aviation DC(A) utilizes the CCRM data as the primary guide/validation tool when providing annual TACAIR FHP inputs to the USN OP-20 budgeting document. Unit Commanders may also utilize the CCRM during the development of their annual SBTP. CG Training and Education Command (TECOM) Aviation Training Branch (ATB) is the custodian of the CCRM for each T/M/S. The models are maintained on the TECOM website ( http://www.tecom.usmc.mil/atb).

#### CH-46E CCRM Example



#### Sortie Based Training Program

The Marine Corps SBTP allows Squadron Commanders to develop an annual SBTP that reflects their unit's Training, Exercise and Employment Plan (TEEP) and T&R requirements to train the necessary core and mission skill proficient aircrew and combat leaders per unit Core Model Minimum Requirement to attain and maintain a T-2 level of readiness. A T-2 level of readiness allows a unit to fulfill its Unit Mission Essential Task List in accordance with corresponding MET output standards to support the MAGTF or Joint Force Commander.

Annual Unit SBTP Submission. The annual unit SBTP submission is developed at the unit level and approved and forwarded via the MAG/MAW/MARFOR chain of command to HQMC APP-2. HQMC APP-2 consolidates the MARFOR T/M/S inputs into a single Marine Aviation SBTP by T/M/S. The MARFOR SBTP inputs are due to HQMC APP-2 NLT 01 August each year for the next Fiscal Year (FY). HQMC APP-2 utilizes the T&R T/M/S Core Competency Resource Model and the MARFOR T/M/S SBTP submissions for the final development of the Marine Aviation TACAIR FHP requirement for DC(A) approval prior to submission to OPNAV N43. The following pages show the SBTP vs.CCRM Flight Hour chart and the SBTP vs.CCRM Hours/Crew/Month chart

**Monthly Unit SBTP Execution Submission**. The monthly unit SBTP execution submission has two distinct purposes. First, it provides the MAG/MAW/MARFOR the data required to track unit SBTP and FHP execution. Second, it provides to HQMC the standardized T/M/S Marine Aviation Readiness metrics for the Current Readiness Cross Functional Team (CFT) under the Naval Aviation Enterprise (NAE).



#### **Training Management Automation**

Squadron Assistance / Risk Assessment (SARA) Program. SARA has undergone many upgrades aimed at improving system functionality and providing the bridge to our long-term aviation training management vision of transitioning to M-SHARP (see below). The overarching changes to SARA targeted standardization. the replacement of the subjective risk model with an objective rules-based risk model, and custom reports improvement. Although SARA is scheduled to be replaced during FY07, it is very important that flying squadrons continue to use this tool since aviation unit SARA data will be imported into M-SHARP. SARA data will be used as the starting point for unit scheduling and ORM saving squadrons hours of "rebaselining" time. With the exception of the M-SHARP "standup," SARA is the only approved training management system for Marine Aviation flying squadrons. Updates to SARA and T&R download information can be found on the Training and Education Command website at http://www.tecom.usmc.mil/atb.

# Marine Corps Sierra Hotel Aviation Readiness Program (M-SHARP)

The past several years have witnessed great strides in the automation of objective, rules-based risk management within USMC aviation's flight scheduling and training management software. The next step on the automated training management roadmap for Marine Aviation is the development and fielding of M-SHARP for USMC aviation flying and MACCS units with follow-on development for MWSG units. The fielding of M-SHARP will mark the pending divestiture of SARA and ATRIMS and the stand-up of a web-based, authoritative data source for Marine Aviation training and readiness. M-SHARP leverages the Navy's web-based training management system and aviation data warehouse concept with an automated, Marine Aviation-specific training and readiness system. M-SHARP will provide Marine Air Wings with a user friendly, web-based training management system. M-SHARP's robust scheduling, event tracking, and objective Operational Risk Management capabilities are designed to prevent delinguent or ungualified individuals (or crews) from being scheduled for an event without requisite skills, proficiency, or supervision. TECOM(ATB) has assumed responsibility for the management and fielding of M-SHARP for Marine Aviation. Introduction of M-SHARP to Marine Aviation flying units began in October 06 with IOC September 07 and FOC January 08.

# Marine Corps Flying Hour Program

# FY-07 Core Competency Resource Model TACAIR FHP Requirement by T/M/S

TMS	Hou	irs			18			-	- H- H-
AH-1W	25,4	27	1.3	· Y	ALC: NO		~		That 1
UH-1N	14,0	00	- Alexander	and the second			Reading		
AV-8B	26,7	'89	-		and the second s		ALC: N		
CH-46E	35,1	35					and the second se		HAH
CH-53D	5,72	27	Ant	;	The second				
MV-22	7,46	60			A In				
CH-53E	21,8	64		-		- Lat	NI KONCE		Ants 1
EA-6B	6,23	32	1000	The .		161	<b>Solution</b>		
FA-18A/C	31,2	.94	1000					1.	and the second second
FA-18D	23,4	98			÷				
KC-130F/R	6,12	29				_			
KC-130J	14,1	60	Sec. 1	1 1000	. Mer	•			A
		2.3	10000	VIP	Yer	2000	<u>a.</u> E		4
Total	217,7	715			22		2 million		No. Contraction
FYDP FHP Fundi	ng								100
POM-08 (\$M)		FY07	FY08	FY09	FY10	FY11	FY12	FY13	08-13 FYDP
			USMC A	VIATION FLY	ING HOUR	PROGRAM			
TACAIR		1,227.2	1,292.0	1,342.9	1,347.3	1,394.5	1,395.2	1,425.8	8,197.7
Fleet Air Training	9	156.4	192.4	193.8	191.9	198.5	207.2	218.9	1,202.7
Fleet Air Support	t	33.6	55.7	58.9	60.9	64.1	66.2	69.2	375.0
Reserves		162.4	149.0	134.9	138.5	139.9	134.5	136.7	833.5
LISMC EHD (MC)		1 570 5	1 680 0	1 730 6	1 738 6	1 707 0	1 803 1	1 850 6	10 608 8

keserves	162.4	149.0	134.9	138.5	139.9	134.5	130.7	033.3
JSMC FHP (M\$)	1,579.5	1,689.0	1,730.6	1,738.6	1,797.0	1,803.1	1,850.6	10,608.8
202K Added to FHP		\$42.0	\$41.7	\$41.7	\$40.2	\$39.8	\$40.0	\$245.4
Added to Flight Hour Other Account			\$3.5	\$121.0	\$113.8	\$106.1	\$109.5	\$454.0

#### Marine Corps FY-07 TACAIR Flight Hours from the SBTP

### **2007 TACAIR Flight Hours**



#### Marine Corps FY-07 T/M/S Average Hours/Crew/Month from the SBTP

### T/M/S Average Hours per Crew per Month vs CCRM T-2.0



### **Marine Aviation Aircraft** Inventory

The data listed below is derived from the Aircraft Program Data File (APDF) FY08.

#### Aircraft Inventory Terminology

#### PAA (PRIMARY AIRCRAFT AUTHORIZED)

T/M/S	PMAA PRIMARY MISSION	PTAA FRS/ TNG	PDAA RDT&E	POAA OTHER/ SPECIAL MISSION	BAA BACK UP	AA ATRITION

Defined by

CJCS INST 4410.01B Standardized Terminology for Aircraft Inventory Management

OPNAVINST 5442.8 Management of the Naval Aircraft Inventory

PMAA (Primary Mission Aircraft Authorization) - Aircraft authorized to a unit for performance of its mission

									unen	it iviai	IIIe	AVIC			
	T/M/S	AVG AGE OF FLEET	PMAA PRIMARY MISSION	PTAA FRS/ TNG	PDAA RDT&E	POAA OTHER/ SPECIAL MISSION	PAA	BAA FACTOR % OF PAA	BAA BACKUP	AA FACTOR	AA FY 06	TOTAL REQ'D			DEPOT
T	AH-1W	17	144	20	3	0	167	12.2	20	0.8	1	188	176	(12)	18
	UH-1N	33	72	10	1	0	83	12.9	11	1.7	1	95	87	(8)	8
^	CH-46E	39	159	18	0	6	183	11.9	22	0.5	1	206	205	(1)	25
~	MV-22A/B	2	32	16	6	0	54	10.0	5	1.0	1	60	50	(10)	2
С	CH-53D	37	30	0	0	0	30	15.5	4	0.6	0	34	34	0	9
$\stackrel{\smile}{=}$	CH-53E	19	112	17	1	6	136	17.9	24	0.5	1	161	150	(11)	27
Т	AV-8B	10	98	14	5	0	117	9.1	11	2.3	3	131	133	2	32
	* F/A-18A/A+	21	48	0	0	0	48	17.0	8	0.9	1	57	62	5	16
	* F/A-18C	14	72	12	0	0	84	11.6	10	0.6	1	95	95	0	19
C	F/A-18D	13	60	20	1	0	81	11.1	9	0.8	1	91	94	3	27
U	EA-6B	25	20	0	0	0	20	22.8	5	1.1	0	25	24	(1)	4
Α	KC-130F	46	5	6	3	0	14	18.3	3	0.8	0	17	6	(11)	0
	KC-130R	30	/	4	0	0	11	16.5	2	1.8	0	13	7	(6)	0
L	KC-1301	10	24	0	1	0	24	13.2	3	0.0	0	21	20	(3)	0
	NC-1303	5	24	0		0	23	10.0	5	0.0	0	20	23	(3)	103
	TOTALS	_	907	137	21	12	1077	13.0%	140		11	1228	1176	(52)	16.4%
	HH-1N	34	0	4	0	3	7	10.0	1	0.0	0	8	11	3	0
	UH-1Y	0	0	6	2	0	8	10.0	1	0.0	0	9	1	(8)	1
	HH-46D	42	0	0	0	0	0	9.4	0	1.1	0	0	3	3	0
Ο	VH-3D	32	0	0	0	11	11	26.7	3	0.0	0	14	11	(3)	3
_	VH-60N	19	0	0	0	8	8	27.2	2	0.0	0	10	8	(2)	1
	TAV-8B	17	0	14	1	0	15	15.1	2	1.6	0	17	17	0	3
ш	F/A-18B	21	0	4	0	0	4	13.8	1	0.8	0	5	2	(3)	1
•••	F-5E/F	18/30	0	1	0	0	1	26.0	0	0.4	0	1	3	2	0
F	F-5N	2	0	12	0	0	12	0.0	0	0.0	0	12	12	0	0
_	C-20G	12	1	0	0	0	1	22.4	0	0.0	0	1	1	0	0
R	C-9B	32	2	0	0	0	2	31.8	1	0.0	0	3	2	(1)	0
	UC-12B/F	26/20	9	0	2	0	11	6.9	1	0.0	0	12	11	(1)	0
	UC-35C/D	7/3	15	0	0	0	15	0.0	0	0.0	0	15	11	(4)	0
	1-34C	-29	U	2	0	U	2	9.5	0	0.4	0	2	3	1	0
	TOTALS		27	37	3	22	89	12.4%	11		0	100	96	(4)	8 8.3%
	GRAND TOT	ALS	934	174	24	34	1166	13.0%	151		11	1328	1272	(56)	<b>201</b> 15.8%

Current Marine Audation Inventory\*

DATA OBTAINED FROM APDF 08-05 Version 96. CALCULATED NUMBERS

DATA FROM AMRR/AIRRS

NOTE: VMM-162 RECEIVED AN ADDITIONAL AIRCRAFT FROM BELL-BOEING. UNCLASSIFIED

# **Marine Aviation Transition**



# Section 2 --- Marine Organizational Structure

Marine Aviation 2007 Aviation Plan	2-2
MARFORLANT/2 <sup>nd</sup> MAW Organizational Chart	2-3
Marine Corps Bases Atlantic Organizational Chart	2-4
MARFORPAC/1 <sup>st</sup> MAW Organizational Chart	2-5
MARFORPAC/3 <sup>rd</sup> MAW Organizational Chart	2-6
Marine Corps Bases Pacific Organizational Chart	2-7
MARFORRES/4 <sup>th</sup> MAW Organizational Chart	2-8
Marine Aviation Weapons & Tactics Squadron One Organizational Chart	2-9
Marine Helicopter Squadron One Organizational Chart	2-10
Marine Tiltrotor Test & Evaluation Squadron Twenty-Two Organizational Chart	2-11
Headquarters Marine Corps Aviation Organizational Chart	2-12
Marine Aviation Transition Task Force (TTF) Organizational Chart	2-13
Marine Aviation Training Organizational Chart	2-14

### Marine Aviation 2017 Aviation Plan (AvPlan)

The Marine Corps Aviation Plan is designed to better posture Marine Corps Aviation for future warfighting requirements in the near term (2007-2009), the mid-term (2010-2012) and the long term (2013-2017). It supports the CMC intent to grow the force to provide for three balanced MEFs for warfighting. This plan addresses critical shortfalls of active component HMH, HMLA, MACG and VMU units, shortfalls in TACAIR inventory, personnel shortages in Marine Aviation tables of organization (T/O) and aviation training standardization. The AvPlan addresses these challenges by reshaping the force structure and managing current aircraft procurement programs of record.

This is a phased, multi-year plan that incorporates aircraft transitions, operational tasking, readiness, aircraft inventory shortfalls, manpower challenges, safety and fiscal requirements.

Over the next several years, Marine Aviation will transition from 13 to 7 type/model/series aircraft, with a peak of 18 type/model/series. These are manpower and training intensive transitions that temporarily take units out of the operating force.

This comprehensive plan analyzed four major areas and solved many of the challenges simultaneously with minimal risk to the combatant commanders. The following are the major areas analyzed: -Future capabilities: 21st Century Marine Corps, AvPlan aircraft transitions, QDR and BRAC. -Readiness: Operational tasking, unit turn around ratios, aircraft inventory shortfalls, unit and aircrew training.

-Operational safety: Marine Aviation mishap rate.

-Fiscal: JSF, CH-53K and MV-22 funding requirements to support acquisition milestone decisions, MILCON to support AvPlan transitions.

The plan is fiscally and operationally executable and incorporates the following force structure adjustments:

TACAIR: Cadre of an AC VMFA and a VMFA (AW) squadron and the cadre of two RC VMFA squadrons.

-The return to duty of the two AC squadrons in cadre status is dependent upon USN decommission or transition of two fleet F-18C squadrons and the JSF fielding plan. Assault Support: the activation of active component HMH and HMLA squadrons. -Deactivation of one RC HMLA and Activation of three new HMLA squadrons while retaining one RC HMLA. -Deactivation of one RC HMH squadron and activation of three new AC HMH squadrons, while retaining a RC HMH (-). UAS: activation of one AC and one RC VMU squadron. Training: standup of Aviation Training System. Increase in T/O and manning levels at the squadron, MAG HQ and MAW HQ. Deactivation of two RC MAG HQs and an RC MALS. Full funding of the JSF, CH-53K and MV-22 programs.

This rebalances the active and reserve component assault support capacity and capability, and increases identified table of organization (T/O) manpower shortfalls across all communities to address ORM, warfighting capability, AvPlan transitions and training system requirements.

Clarity on the finer details of the AvPlan is pending decisions made in the TTF process with MARFOR participation. This growth is required to meet the demands of both today's and tomorrow's fight.

#### Way Ahead:

The AvPlan will shape the future of Marine Corps Aviation to meet the diverse missions of tomorrow's battlefield and provides our aircrews with improved capabilities, unit manning and a thorough safety training system to better overcome these challenges. This plan sets in place tomorrow's Marine Aviation as a viable and efficient force in support of the MAGTF on the battlefield.

Pages 2-3 through 20-14 are Marine Aviation Organizational Charts that show planned changes in structure and basing between now and 2017. The color coding is as follows:



#### MARFORCOM/2<sup>ND</sup> MAW ORGANIZATIONAL CHART



HMH-366 ACTIVATES IN FY-08. MOVES TO NEW RIVER IN FY12. MARINE AIRCRAFT GROUP ASSIGNMENT TBD.
HMLA-467 ACTIVATES IN FY-08. MOVES TO NEW RIVER IN FY12. MARINE AIRCRAFT GROUP ASSIGNMENT TBD.

HMLA-467 (3)

4) IAW 202K EXPANSION, HMLA-567 (THE 9TH AC HMLA) STANDS UP FY11. MARINE AIRCRAFT GROUP ASSIGNMENT TBD.

#### MARINE CORPS BASES ATLANTIC ORGANIZATIONAL CHART



NOTE: 1/ USN FA-18C SQUADRON STATIONED AT MCAS BEAUFORT IS INDEPENDENT OF  $2^{ND}$  MAW.

2-4

#### MARFORPAC/1<sup>ST</sup> MAW ORGANIZATIONAL CHART



- 8) VMFA-212 TO CADRE IN FY-08, UDP REQUIREMENT FILLED BY VMFA(AW)-242. VMFA-212 ACTIVATION WITH EITHER F-18CS OR JSF DEPENDENT ON USN DECOMMISSION OF TWO VMFAS.
- 9) HMH-463 CADRES IN FY11 TO TRANSITION TO MV-22 IN FY16.
- 10) VMM TO BE MOVED TO WESTPAC FY12. LOCATION TBD.

NOTES:

11) HMH-362/362 TRANSITION TO 16-PLANE SQUADRONS IN FY11, REDESIGNATED HEAVY LIFT FOR CH-53K TRANSITION.

#### MARFORPAC/3<sup>RD</sup> MAW ORGANIZATIONAL CHART



#### NOTES:

1) VMFA(AW)-242 PCS TO 1<sup>ST</sup> MAW IN FY-08.

2) VMU-3 ACTIVATION IN FY08 IN 29 PALMS.

3) VMM TO RESIDE ON WEST COAST BETWEEN FY11-17. LOCATION TBD.

#### MARINE CORPS BASES PACIFIC ORGANIZATIONAL CHART



1) CURRENT PLANNING --- PACOM MCAS FUTENMA FEASIBILITY STUDY ON-GOING.



NOTES:

1) BRAC 2005: MAG-49 HQ, HMH-772 & HMLA-775 DET A MOVE TO MCGUIRE AFB, NJ (EST MOVE: FY11).

2) BRAC 2005: VMFA-142 MOVES TO FORT WORTH JRB, TX FY08 & CADRES UNDER MAG-41; HMLA-773 MOVES TO ROBINS AFB, GA FY09 & REALIGNS UNDER MAG-49.

3) BRAC 2005: 471 DET A & MWSS 472 MOVE TO MCGUIRE AFB, NJ IN FY11.

4) FY07: CADRE VMFA-134

5) FY08: DEACT MAG-42, MALS-42, HMH-769. CADRE VMFA-142 UNDER MAG-41; REALIGN UNDER MAG-49: HMLA 773 & HMM-774; REDUCE: HMH-772 TO HMH-772(-).

6) FY09: DEACT MAG-46, HMLA-775; REALIGN & REDESIG HMLA-775A AS HMLA-773B (UNDER MAG-49).

7) FY17 MV-22 RC STAND UP. LOCATION TBD.

8) FY18 MV-22 RC STAND UP. LOCATION TBD.

#### MARINE AVIATION WEAPONS AND TACTICS SQUADRON ONE ORGANIZATIONAL CHART



<u>NOTE</u>: 1) FISCAL/COMPTROLLER SUPPORT.

#### MARINE HELICOPTER SQUADRON ONE ORGANIZATIONAL CHART



#### MARINE TILTROTOR TEST AND EVALUATION SQUADRON TWENTY-TWO ORGANIZATIONAL CHART



NOTES: 1) ADCON. 2) VMX-22 RELOCATES TO NAS PATUXENT RIVER IN FY-08.

#### HEADQUARTERS MARINE CORPS AVIATION ORGANIZATIONAL CHART



#### MARINE AVIATION TRANSITION TASK FORCE (TTF) ORGANIZATIONAL CHART



NOTE:

2-13

#### MARINE AVIATION TRAINING ORGANIZATIONAL CHART



#### NOTE:

1) THE TILTROTOR PIPELINE TRAINING PROGRAM IS DIFFERENT THAN THE STANDARD RW TRAINING PROGRAM. THE TILTROTOR PROGRAM CONSISTS OF THE NORMAL PRIMARY FLIGHT TRAINING PROGRAM FOLLOWED BY INTERMEDIATE FLIGHT TRAINING CONSISTING OF APPROXIMATELY 65 HOURS IN THE C -12 AND THEN THE ADVANCED STAGE OF TRAINING CONSISTING OF APPROXIMATELY 60 HOURS IN THE TH-57. THE FLEET REPLACEMENT SQUADRON (VMMT -204) THEN PROVIDES V-22 SPECIFIC TRAINING IN THE MV-22A WITH APPROXIMATELY TWO-THIRDS OF THE TRAINING TAKING PLACE IN ADVANCED SIMULATORS.

2) USMC KC-130 MAINTENANCE AND AIRCREW TRAINING MOVING TO LITTLE ROCK AFB IN FY09. KC-130J ATU IS INTERIM PROGRAM UNTIL JOINT C-130J TRAINING WITH USAF.

# Section 3 ---- Aviation Manpower

Aviation Manpower Plans	3-2
Officer Manning	3-3
Enlisted Manning	3-4
Ongoing Manpower Issues	3-6
Manpower Changes with a Transitioning Force	3-7
Future Challenges	3-8
202K End Strength Increase	3-9
Pilot Training Requirements	3-11

### **Aviation Manpower Plans**

Aviation manpower plans center around meeting the challenges of sustaining the Global War on Terror (GWOT) while simultaneously transitioning Marine Aviation to execute future warfighting concepts. To meet these challenges, we are closely monitoring manpower inventories and prudently employing the resources available to ensure the right people are in the right place at the right time. Additionally, they will require the right education in order to execute the acquisition, testing, and training associated with transitioning each part of Marine Aviation. Our people remain the key to future success.

#### Sustaining the Force

Marines are deploying at a tempo unparalleled by an all-volunteer force. Numerous HQMC agencies work together to manage this force, but it is the sacrifice and performance of individual Marines that have enabled the Marine Corps to make a significant contribution to the GWOT. What follows is a brief summary of last fiscal year's results in sustaining the force and some of the tools and programs we will use as we proceed.

#### Monitoring the Manpower Inventories

Maintaining healthy manpower inventories provides the flexibility Marine Aviation requires to meet the dynamic, transitional plan of Marine Aviation. The following chart depicts the current Aviation Officer inventory. During the last two years, aviation inventories have remained generally the same.

#### Pilot Time to Train $(T^3)$

Despite external demands on fleet replacement squadrons, the time to train replacement pilots has shown little change over the previous year. The chart below depicts time to train from TBS to the Fleet.

# Officer Manning (September 06)

#### **AVIATION OFFICER INVENTORY**

MOS	GAR	OnBoard	%
7509 (AV-8)	397	372	94%
7523 (F/A-18)	65 <b>ඊ</b>	560	86%
7543 (EA-6B)	79	73	92%
7556/7 (C-130)	396	305	77%
F/W PILOT TOTAL	1,522	1,310	86%
7532/62 (V-22/H-46)	860	863	100%
7563 (UH-1)	290	283	98%
7564 (CH-53D)	167	112	67%
7565 (AH-1)	484	488	101%
7566 (CH-53E)	437	452	103%
R/W PILOT TOTALS	2,238	2,198	98%
7525 (WSO)	173	200	115%
7588 (ECMO)	176	188	107%
NFOTOTAL	349	388	124%
6002 (Aircraft Maintenance)	240	248	103%
6602 (Aviation Supply)	201	200	100%
7202 (Air Command & Control)	194	182	94%
7204 (LAAD)	42	57	136%
7208 (Air Support)	144	112	78%
7210 (Air Defense Control)	99	81	82%
7220 (Air Traffic Control)	72	65	90%

\* Estimate due to MM planning system error



#### Aviation Career Pay (ACP) Goals/Current Status

The FY07 ACP program has been approved and MarAdmin 475/06, released on 3 October 06, defines the specifications relating to ACP. ACP is a special pay that varies annually depending on the health of aviation and Officer inventories. The intent is to provide a proactive, long-term aviation career incentive for Marine Aviation Officers. The health of each respective community is determined by examining inventory as a percent of the grade adjusted recapitulation (GAR). Budget forecasts show ACP funding is set to meet the anticipated demand.

#### **Increasing Aviation Officer Accessions**

Aviation Officer accessions are in the process of being increased through the 202K growth process to meet the operational demand. Although we have achieved most of our training requirements and total time-to-train has been on a gradual decline for the last six years, company grade inventories of aviators are below desired levels. The trend has been addressed with MARADMIN 475/06. After careful analysis of available data, Manpower Plans concluded overall production of Marine aviators needed to be increased. Accessions will continue to ramp up until the desired grade mix is achieved. Aviation, TECOM and MPP will continue to coordinate with CNAF/CNATRA in accordance with the Naval Aviation Production Process (NAPP) guidelines.

#### Professional Acquisition Workforce Initiative

MarAdmin 348/04 announced CMC's decision to create an acquisition officer primary MOS of 9959 and establish select acquisition positions as command equivalents. Applicants for 9959 will be competitively selected to fill 130 billets. The goal is to recruit, train, and retain highly qualified personnel to serve in the acquisition field so that we can provide the best possible equipment and aircraft to the Operating Forces. The Aviation Department will continue to support efforts to enhance the acquisition workforce.

#### Personnel Exchange Program (PEP)

The Marine Corps shares 30 exchange billets, both foreign and domestic, in a program that has proven extremely valuable in teambuilding. The applicants are thoroughly screened prior to the selection process, and the basic requirement of the individuals chosen is to serve as representatives of their service and country. These individuals all possess exceptional leadership and aviation skills and have a keen understanding of the foreign cultures in which they are immersed in. More information can be found on the HQMC Aviation website.

Country	Billet
Australia	Tiger-Cobra Exchange (NEW)
	F/A-18 Exchange
	Air Traffic Control Exchange
	Maintenance Officer Exchange
Canada	F/A-18 Exchange
	KC-130 Exchange
Italy	AV-8B Exchange
Spain	AV-8B Exchange
United Kingdom	AV-8B Exchange (RN)
	AV-8B Exchange (RAF)
	F-3 Tornado Exchange (RAF)
	Mk4 Sea King Exchange (RN)
	Mk7 Lynk Exchange (RM)
	Tactical Air Controller Exchange (RAF)
United States Air Force	F-16 Exchange, (Luke AFB)
	F-16 Exchange, (Shaw AFB)
	F-15 Exchange
	MH-53J Exchange
	AGOS/JFCC Exchange
United States Army	TF-160

### **Aviation Enlisted Inventory**

MOS	On Board	GAR	Percent
59XX (Electronics Maintenance)	1,336	1,362	98%
60XX (Aircraft Maintenance)	5,143	4,947	104%
61XX (RW Maintenance)	5,259	5,873	90%
62XX (FW Maintenance)	3,586	3,887	92%
63XX (Avionics OMA)	4,052	3,594	113%
64XX (Avionics IMA)	2,785	2,993	93%
65XX (Aviation Ordnance)	2,554	2,611	98%
66XX (Aviation Supply)	1,937	2,080	93%
68XX (Aviation Weather)	336	333	101%
70XX (Airfield Services)	2,348	2,338	100%
72XX (Air Control/Support)	2,164	2,132	102%
73XX (Enlisted Flight Crew)	288	398	72%
TOTALS	31,788	32,548	98%

*First Term Alignment Plan (FTAP): Note: "BS" denotes boat spaces* 

#### FIRST TERM ALIGNMENT PLAN

The charts below are current as of Sept 06. Current trends have shown successful FTAP and STAP reenlistments. We continue to monitor the inventories closely in regards to current operational tempo. In an attempt to get in front of the end strength increase, MPP has suspended the boat space constraints (MARADMIN 154/07), this allows all qualified Marines to reenlist within their MOS. This helps in the aggregate however, we must ensure our Career Retention Specialist (s) encourage Marines to LatMove into those MOS's where shortages exist. Proper MOS mix will ensure Marine Aviation's continued success.

Note: 73XX is at 72% due to the "sun downing" of the 7372 Enlisted Flight Navigators with the introduction of the C-130J. Future GAR will be adjusted to indicate this decrease in requirement.

OCC Field	Beginning FY-06 EAS	FY-06 BS	% of EAS Pop. Needed to FTAP	BS from Lateral Moves	% BS from Lateral Moves	BS from PSEPs	% BS from PSEPs	BS Fill Total	% BS Fill Total	# of QRPs
59XX	209	43	21%	3	7%	13	30%	43	100%	3
60XX	319	109	34%	3	3%	2	2%	119	109%	9
61XX	728	210	29%	39	19%	37	18%	209	100%	2
62XX	520	114	22%	14	12%	8	7%	123	108%	8
63XX	438	152	35%	32	21%	32	21%	156	103%	3
64XX	431	177	41%	8	5%	17	10%	190	107%	15
65XX	178	118	66%	4	3%	15	13%	119	101%	1
66XX	138	92	67%	11	12%	5	5%	93	101%	1
68XX	51	20	39%	1	5%	7	35%	20	100%	0
70XX	168	104	62%	14	13%	0	0%	108	104%	3
72XX	121	102	84%	8	8%	14	14%	102	100%	2
73XX	40	15	38%	2	13%	4	27%	15	100%	0
TOTALS	3,341	1,256	38%	139	11%	154	12%	1,297	103%	47

Note: Boat spaces are the number of Marines that a specific MOS is programmed to reenlist that FY. The Quality Reenlistment Program allows MOS's to reenlist beyond their BS requirement.

OCC Field	FY-06 Goals	E4 & E5 Reenlist	% Reenlist met by E4 & E5	E6 Reenlist	% Reenlist met by E6	E7 Reenlist	% Reenlist met by E7	Reenlists Total	% Renlist Total
59XX	55	11	20%	38	69%	24	44%	73	133%
60XX	264	69	26%	137	52%	73	28%	279	106%
61XX	230	58	25%	141	61%	88	38%	287	125%
62XX	171	43	25%	131	77%	66	39%	240	140%
63XX	121	63	52%	86	71%	48	40%	197	163%
64XX	107	29	27%	90	84%	44	41%	163	152%
65XX	109	40	37%	56	51%	25	23%	121	111%
66XX	102	46	45%	51	50%	26	25%	123	121%
68XX	17	12	71%	8	47%	8	47%	28	165%
70XX	106	37	35%	58	55%	29	27%	124	117%
72XX	81	40	49%	29	36%	26	32%	95	117%
73XX	12	4	33%	8	67%	7	58%	19	158%
TOTAL	1,375	452	33%	833	69%	464	34%	1,749	127%

Note: The STAP, unlike the FTAP is a rolling 12 month requirement. FTAP is constrained by the Fiscal Year.

#### Selective Reenlistment Bonuses

The SRB program assists us in retaining the best Marines in our critical, short, and hard to retain MOSs. This year, 97 aviation MOSs are eligible for some form of SRB, according to MarAdmin 404/05. Eighty six Zone "A" bonuses are offered while Zones "B" and "C" offer 62 and 53 respectively. This years Zone "B" and "C" offerings demonstrate the Marine Corps continuing commitment to Career Force retention.

#### Enlisted Time to Train

We continuously work with the Navy to develop solutions to expedite the production of aviation maintenance personnel. USN is planning MilCiv conversion for many of its aviation maintenance instructors. HQMC works closely with TECOM on T3 management.

#### Aviation "Top 6" and EGSR

The Aviation Transition Plan previously addressed issues which were highlighted in the CMC Policy Directive 1-05 to improve Aviation Safety. Part of that process was to provide more experience and supervision in the enlisted ranks of the QA, Maintenance Control and Safety Departments. Our present "Top 6" structure is about 62%. Aviation is currently positioned to defend that requirement as M&RA analyzes the "Top 6" aggregate across the Marine Corps during any forthcoming Enlisted Grade Structure Review.

### **Ongoing Manpower Issues**

#### AVPlan Implementation Strategy and the 202K Endstrength Increase

The Commandant of the Marine Corps, recognizing the many challenges faced by our Corps to have a balanced force that can train to core competencies, initiated a plan to increase the overall endstrength of the Marine Corps to 202K.

DC Aviation further developed the existing Aviation Transition Strategy, which returned many of the necessary resources to a stressed operating force and created a transitional structure to continue the FY08-09 portion of the strategy. The FY07 portion of the strategy has been executed.

With the CMC-directed endstrength increase, the Aviation Transition Strategy became the core of the Aviation Plan. The Marine Corps will grow by 5,000 Marines per year through FY11. As mentioned, and in conjunction with previous plans and the new growth in the Marine Corps, the ACE will grow three additional HMLAs, three additional HMHs, two VMFAs and a VMU. The MACG will also remedy shortfalls across its communities to stabilize dwell time of all units and dets. The challenge during this time will be to continue the transition to our new platforms while growing capacity to train in all platforms. A robust plan that includes the use of contractors and a significant transitional structure will see us through completion. The TACAIR units which were previously slated for disestablishment will be placed in a cadre status with the intent to reestablish them with either legacy F/A-18 aircraft or the Joint Strike Fighter, dependent on aircraft inventories or asset availability.

#### EA-6B FRS

Based upon the Navy's decision to divest itself of the EA-6B FRS training mission by FY11, the plan to conduct USMC EA-6B aircrew and maintenance training is under review.

#### Consolidating F/A-18A/C/D FRS Training

Based upon reduced C/D pilot requirements due to the transition to the F/A-18E/F and the Joint Strike Fighter, the Department of the Navy is in the process of consolidating F/A-18A/C pilot production. At the end of FY11 VFA-106 will cease production of F/A-18A/C pilots and will be re-designated as an F/A-18E/F Fleet Replacement Squadron. This will terminate USMC support of this unit. Upon VFA-106's re-designation, two legacy F/A-18 FRSs will remain: VMFAT-101 at MCAS Miramar and VFA-125 at NAS Lemoore.

#### Naval Flight Officer Sundown Plan

Based upon the current aircraft lay-down plan, there will no longer be a requirement for USMC Naval Flight Officers (NFOs) in FY18. The F/A-18D Weapons and Sensors Officer MOS (7525) and the EA-6B ECMO MOS (7588) will be programmed to end as a primary MOS at a date TBD. Plans are being developed to ensure both Officer end strength and accessions are managed to provide the greatest flexibility with the remaining NFO inventory at the time of final sundown.

#### **TACAIR Integration**

Marine F/A-18 squadrons embarked aboard Navy aircraft carriers require additional manpower to meet the demands of operating at sea. Accordingly, an updated Table of Organization (T/O), 8830, has been developed for F/A-18 A+/C squadrons programmed for Tactical Air Integration (TAI). The increase is 26 Marines (25 O-level and one I-level). The Navy has programmed the creation of three 57-man Intermediate Maintenance Activity detachments to increase their expeditionary capabilities. The first detachment was completed in time for VFA-97's deployment to Iwakuni. Marine Aviation is working closely with the Navy to improve manpower agreements that better match service resources to mission requirements.

### Manpower Changes with a Transitioning Force

Because manpower structure is at a premium, the Fleet, Aviation (ASM), Total Force Structure (TFS) and Manpower and Reserve Affairs (M&RA) are working together closely to wed the requirements associated with our transition plans with the operational requirements of our force.

#### **MV-22 Transition**

Manpower plans for MV-22 are in execution with MOS inventories above critical path. The first two MV-22 squadrons, VMM-263 and VMM-162, stood up during 2006 and the third, VMM-266, began stand up in 2007. Planning is underway for the first operational VMM deployment.

During late 2006, the MV-22 pilot selection process changed from a board only process to a direct assignment process managed by MMOA-2. MMOA will select CH-46E pilots for MV-22 transition. They will target pilots in the transitioning HMMs. The annual DC Aviation transition/conversion board will select a small percent of pilots from outside the assault support community for MV-22 transition. Implementation of the revised policy will support transition of the medium lift assault support community and will take into account the critical balance of building the VMM population while continuing to meet ongoing war fighting requirements.

#### **KC-130J Conversion**

VMGR-252 has accepted twelve KC-130J aircraft and each is fully operational. A Fleet Introduction Team (FIT) and has received twelve KC-130Js. VMGR-152 stood up a FIT and is scheduled to receive KC-130J aircraft in 2007 to conduct conversion training through the following two years.

Introduction of the aircraft has caused changes in manning. For example, the aircraft requires neither a Tactical Systems Operator (TSO), nor a Flight Engineer. Consequently, these MOS's are being carefully managed to ensure we have sufficient numbers to fly legacy aircraft. The T/O for active duty K/J squadrons has been changed to reflect the new career requirements and to take advantage of the additional operational capabilities of the aircraft. The old T/O was structured to support two 6-plane detachments; the new T/O provides two 3-plane detachments to support MEU(SOC) deployments and a 6-plane core squadron. Increasing K/J squadrons from 12 plane PMAA to 15 plane PMAA is the future HQMC plan. Manpower is positioned to support this requirement.

#### **UH-1Y/AH-1Z Conversion**

Structure has been consolidated at VX-9. China Lake in order to increase Operational, Test and Evaluation (OT&E) capabilities. H-1 Upgrade training and OPEVAL Phase II, which will begin in the near future, will require temporary augmentation from the Operating Forces and supporting establishments. The intent is to reduce the overall manpower demand on the operating forces, using OT&E as an opportunity to create a core of experienced Marines for future assignment to HMT-303, the Naval Aviation Maintenance Training Marine Unit, and Fleet Introduction Team (FIT). We are programming increased manning at HMLA/T-303 from FY07 to FY14. In addition, HMLA/T is being augmented with contract maintenance support. The FRS manpower increase will support conversion training of fleet squadrons while supporting the increased throughput associated with the stand up of 3 additional HMLAs. The first Huey detachment begins UH-1Y training in FY08, and the first Cobra detachment begins AH-1Z pilot training in FY10. Enlisted upgrade training will be completed in concert with UH-1Y conversion.

#### **VH-71 Conversion**

HMX-1 has been programmed to receive manning support for test article delivery in FY07 and a limited operational capability in FY10. Also in work is programming of an increase of communications systems operators and six additional pilots to support an increase in PMAA and mission requirements.

#### **JSF Transition**

Manpower requirements have been programmed to support a ready for training date of 1 October 2010. This requirement was addressed in the 202K endstrength increase. Current priorities for manpower in the JSF community are staffing for the Developmental Test program at PAX River, MD, the Operational Test team and the future Joint Integrated Training Center being established at Eglin AFB, FL. Establishment of this team is currently in work. Planned squadrons transitioning to the JSF begin in FY-12. During this transition, the Marine Corps will be required to support JSF indoctrination along with continued support of legacy platforms. A transitional Table of Organization has been established to begin the building of structure to support JSF unit milestones.

#### **CH-53K**

Marine Aviation has developed an initial plan for phased reallocation of transition manpower structure from Executive Lift Replacement Program in support of the Heavy Lift Replacement. This structure will cover the overhead associated with OT&E and transition training.

#### Aviation Training System (ATS) Initiatives

We continue to invest manpower to further develop a comprehensive and fully integrated training system to include standardization and evaluation for tactical training incorporating Aircrew, Maintenance, and Command and Control personnel. In the long term, we expect higher quality training at reduced costs. Within each of the three active duty Wings, we are structuring, aircrew, maintenance, and command and control training detachments that will be located at all Major Subordinate Command locations in order to integrate tactical training and better employ simulation. The initial structure dedicated to fill core staff billets will be complete by the end of FY-08.

### **Future Challenges**

The Marine Aviation Plans Manpower Implementation Strategy is looking at manpower requirements out to FY15 and beyond. We remain concerned that the rapid deployment cycle is impacting training of fleet and replacement personnel. Although inventories and staffing levels remain high, Marines are accumulating significant deployment time. HQMC continues to monitor inventory and retention. Standing down squadrons to complete transition to new aircraft will exacerbate the strains on the Operating Forces. Consequently, we continue to look at policies and alternative plans that may be required if the current tempo of deployment is maintained. The 202K endstrength increase has provided aviation the critical transitional structure required to execute the H-1, JSF and CH-53K transitions, and to recoup lost TACAIR capability.

# **USMC 202K End Strength Increase**

Inf Bn x 2 5/10 HQ Recon Plt x 2 MP Co x 2 (GCE) Counter Btry Plt x 1 ANGLICO Plt x1 CEB Co x 1 FRS Plus Up (H1) MCRC (400) TECOM (600)

FY07 - 184k

FY08 - 189k Regt HQ Inf Bn Arty Btry x 1 Recon Plt x 2 CEB Co x 1 MP Co x 2, 1 Plt-4k Truck Co x 2 (1-4k RCT) ANGLICO Plt x 2 Intel Enablers Intel(-) Bn 3d RadBn Plus up EOD (4 Teams) **Civil Affairs Planners Civil Affairs Dets** HMH (ATS) HMLA (ATS) VMU **FRS/H1 OT Plus Up** MACG HQ Dets x 2 MASS Dets CLB(-) (Regt) MCRC (200) **TECOM (325)** 

FY09 - 194k Arty Btry x 1 **Counter Btry Plt x** 1 CEB HO Co **CEB Supt Co** MP Co x 2 CLB (-) (Regt) CLB (MEU) x 2 Rad Bn Intel(-) Bn Info Ops EOD (5 Teams) HMLA (#8) MACS ATC Det **MWCS Det** 

**TECOM (325)** 

Regt HQ 24/7 Arty Btry x 1 AAV/EFV Co x 2 Counter Btry Plt x 1 Inf Bn & MLG Maintainers (DO) CLR Augments MLG Comm MACS ATC Det MWCS Det JSF FRS/OT (FY10) MTACS Dets

FY10 - 199k

FY11 - 202k Tank Bn CLC Bridge Co x 2 HMLA (#9) HMH x 2 VMFA x 2 FAO/RAO JSF FRS/OT (FY11 & FY12) Inf Bn 100%

>77% or 17,000 Marines to the Operating Forces
# **Aviation Structure Increases**

<u>Unit Type</u>	Location_	<u>0</u>	<u>E</u>	<u>T/O #s</u>	
FRS (H1)	CamPen MCAS	10	100	110	FY07
HMLA-467(1)	Ch Pt(Temp) /MCASNR	70	396	466	FY08
HMH-366 (1)	Ch Pt(Temp) /MCASNR	41	294	335	FY08
VMU-3	29 Palms	14	176	190	FY08
MACG HQ Dets	Cherry Pt/Miramar	12	32	44	FY08
MTACS	Cherry Pt/Miramar	20	102	122	FY10
MASS Dets (2)	Ch Pt(Temp) /MCASNR	40	206	246	FY08
FRS (H1)	CamPen MCAS	10	150	160	FY08
H1 OT	China Lake	6	30	36	FY08
MACS ATC Dets	Yuma/Cherry Pt	10	174	184	FY09/10
MWCS Dets	ChPt/CamPen	20	514	534	FY09/10
HMLA-469	TBD	70	396	466	FY09
JSF FRS/OT	Eglin	18	180	198	FY11
HMH #8	Hawaii (Temp)/MCASNR	41	294	335	FY11
HMH #9	Hawaii (Temp)/MCASMir	41	294	335	FY11
HMLA-567	New River	70	396	466	FY11
VMFA #20&21	Beaufort/Miramar	48	444	492	FY11
JSF FRS/OT	Eglin	8	78	86	FY11
JSF FRS/OT	Eglin	16	135	151	FY12
TOTAL		565	4391	4956	

Note (1) These two units were stood up under previous MATS plan using internal USMC force structure.

The CAT I initial accession and NFO numbers derived from MPP-30 officer accession models.

The CAT Others (II,III.IV) are derived from MMOA-historical data and planned assignments.

	MARIN	<b>JE AVIATION PILOT</b>	TRAINING REQUIRI	EMENT	
FISCAL YEAR	STRIKE	MARITIME	ROTARY	TILTROTOR	TOTAL
06	97	30	184	8	319
07	94	32	184	16	326
08	101	32	191	18	342
09	93	32	196	15	336
10	102	32	206	32	372
11	110	32	200	32	374
12	112	32	179	40	363
13	108	32	174	40	354
14	108	32	164	48	352

MARINE AVIATION NFO TRAINING REQUIREMENT
--

FISCAL YEAR	STRIKE/FIGHTER	STRIKE (1)	ATDS	NAV	TOTAL
06	20	20	0	0	40
07	17	16	0	0	33
08	17	16	0	0	33
09	17	16	0	0	33
10	17	16	0	0	33
11	17	16	0	0	33
12	14	16	0	0	30
13	11	16	0	0	27
14	11	16	0	0	27

Note (1) ECMO

This table reflects pilot training requirements published in the OPNAV Training Requirements Letter (TRL). USMC inputs are submitted annually and are based on an 8 year forecast.

	TION TACAT	RPILUI	KA IIVIIVO K	EQUIREIVIEI					
TRAINING UNIT	06 (NOTE 1)	07	08	09	10	11	12	13	14
VMFAT-101 FRS TRAINING REQUIREMENT			-						
CAT I PILOT	18	21	23	25	29	29	32	29	29
CAT II PILOT	0	1	1	1	1	1	1	1	1
CAT III PILOT	5	6	6	6	8	8	9	9	9
CAT IV PILOT	6	5	5	5	5	5	6	6	6
CATVCQ	4	4	4	4	4	4	6	5	5
CATIWSO	19	17	17	17	17	17	14	11	11
CAT II WSO	0	0	0	0	0	0	0	0	0
CAT III WSO	6	7	7	7	7	7	7	7	7
CAT IV WSO	2	5	5	5	5	5	5	5	5
VFA-106 FRS TRAINING REQUIREMENT VFA-1	06 NO LONGER	R PRODUCES	S F/A-18C/D	STUDENTS	AFTER FY08				
F/A-18C									
CAT I PILOT	15	19	14	12	12	8			
CAT II PILOT	0	1	1	1	1	1			
CAT III PILOT	7	7	7	7	6	5			
CAT IV PILOT	7	4	4	4	5	3			
CATVCQ	1	4	4	4	4	3			
VFA-125 FRS TRAINING REQUIREMENT			-						
CAT I PILOT	17	16	15	15	20	20	21	19	19
CAT II PILOT	0	0	0	0	0	0	1	1	0
CAT III PILOT	1	3	3	3	5	5	8	7	7
CAT IV PILOT	1	3	3	3	3	5	6	5	5
CATVCQ	0	4	4	4	4	4	5	5	5
F/A-18C/D TOTAL REQUIREMENTS									
CAT I PILOT	50	56	52	52	61	57	53	48	48
CAT II PILOT	0	2	2	2	2	2	2	2	1
CAT III PILOT	13	16	16	16	19	18	17	16	16
CAT IV PILOT	14	12	12	12	13	13	12	11	11
CATVCQ	5	12	12	12	12	11	11	10	10
VAQ-129 FRS TRAINING REQUIREMENT (1)									
CAT I PILOT	8	11	10	8	8	8	8	8	8
CAT II PILOT	0	0	0	0	0	0	0	0	0
CAT III PILOT	0	3	3	3	3	3	3	3	3
CAT IV PILOT	0	3	3	3	3	3	3	3	3
CAT I ECMO	21	16	16	16	16	16	16	16	16
CAT II ECMO	0	0	0	0	0	0	0	0	0
CAT III ECMO	3	5	5	5	5	5	5	5	5
CAT IV ECMO	0	5	5	5	5	5	5	5	5
VMAT-203 FRS TRAINING REQUIREMENT									
CAT I PILOT	21	27	39	33	33	28	24	19	19
CAT II PILOT	0	0	0	0	0	0	0	0	0
CAT III PILOT	4	13	13	13	11	11	10	8	8
CAT IV PILOT	5	12	12	12	10	10	9	7	7
FMS	3	3	3	3	3	3	3	3	3

NOTES: (1) Based upon USN plan to divest itself of EA-6B FRS mission, USMC EA-6B FRS aircrew and maintenance training plan under review

This table reflects pilot training requirements published in the OPNAV Training Requirements Letter (TRL). USMC inputs are submitted annually and are based on an 8 year forecast.

IVIARINE AVIA HUN ASSAULI SUPPORI PILUT TRAINING REQUIREIVIENT (PTR)
--

	06 (NOTE 1)	07	08	09	10	11	12	13	14
VMGRT-253 (KC-130F/R/T) FRS TRAINING R	FOUIREMENT	07	00	07	10	<u> </u>	12	10	
CATI	12	6	0	0	0	0	0	0	0
CAT I TRANSITION	0	2	2	2	2	2	2	2	2
CAT II	2	2	2	2	2	2	2	2	2
CATIII	7	5	2	1	1	1	1	1	1
CAT IV	6	4	1	1	1	1	1	1	1
VMGR-252/352/152 (KC-130J) TRAINING RE	QUIRMENT								
CATI	15	26	32	32	32	32	32	32	32
CAT I TRANSITION	2	4	4	4	4	4	4	4	4
CAT II	25	20	10	5	2	2	2	2	2
CATIII	2	4	6	8	8	8	8	8	8
CAT IV	0	2	6	6	6	6	6	6	6
KC-130F/R/T/J TOTAL REQUIREMENTS									
CATI	27	32	32	32	32	32	32	32	32
CAT I TRANSITION	2	6	6	6	6	6	6	6	6
CAT II	27	22	12	7	4	4	4	4	4
CAT III	9	9	8	9	9	9	9	9	9
CAT IV	6	6	7	7	7	7	7	7	7
VMMT-204 (MV-22) FRS TRAINING REQUIRE	MENT								
CATIUSMC	6	16	18	15	32	32	40	40	48
CAT II USAF	15	15	15	24	28	24	24	24	24
CAT II VMM	20	15	25	25	29	29	29	29	29
CAT II VMM ADV	NA	8	12	12	24	24	24	24	24
CATIII	0	0	3	5	5	15	15	15	15
CATIV	0	0	0	0	1	5	5	5	5
CAT II FRS IP	14	12	12	12	9	5	5	5	5
HMT-164 (CH-46E) FRS TRAINING REQUIREM	IENT								
CATI	64	51	50	41	42	36	15	10	0
CATII	0	0	0	0	0	0	0	0	0
CAT III	16	24	24	22	18	18	8	4	0
CATIV	0	4	4	3	2	2	0	0	0
EMS	0	0	0	0		0	0	0	0
HMT-302 (CH-53D & CH-53E) FRS TRAINING	HMT-302 AS	SUME THE	ROLE AS	SOLE CH	-53D/E FR	S INFY-C	)6		
CAT I (CH-53D)	10	14	15	15	15	15	15	15	15
CAT I (CH-53E)	39	40	47	47	47	47	47	47	47
CAT II (CH-53E)	3	6	6	6	6	3	3	0	0
CATIII	13	20	22	22	22	18	18	18	18
CATIV	6	10	10	10	10	10	10	10	10

NOTES: (1) NUMBERS REFLECT ACTUAL FY06 PRODUCTION

(2) VMGRT-253 DECOMMISSIONED SEP 06. FRS REQUIREMENTS TRANSFERRED TO VMGR-152, 452 AND 234.

This table reflects pilot training requirements published in the OPNAV Training Requirements Letter (TRL). USMC inputs are submitted annually and are based on an 8 year forecast.

MARINE AVIATION ASSAULT SUPPORT PILOT TRAINING REQUIREMENT (	(PTR)

		07	00	00	10	11	12	12	14
		07	08	09	10		12	13	14
HMT-303 (UH-1/HH-1/AH-1) FRS	TRAINING REQU	JIREMENT	(1)						
UH-1N:									
CATI	30	31	22	23	22	22	8	8	8
CAT II	0	3	3	4	4	1	1	1	1
CAT III	8	12	8	6	7	4	2	2	2
CAT IV	1	2	2	2	1	1	1	1	1
UH-1Y:									
CATI	0	0	9	10	17	31	31	31	31
CAT II (N to Y)	0	7	15	10	19	37	8	8	8
CAT II	0	0	0	0	0	0	0	0	0
CAT III	0	5	7	8	10	12	12	12	12
CAT IV	0	0	0	0	0	0	6	6	6
AH-1W:									
CATI	47	48	51	58	54	54	33	21	21
CATII	0	0	0	2	2	3	2	2	2
CAT III	26	25	25	31	31	29	15	15	15
CAT IV	4	2	2	3	4	4	4	4	4
FMS	0	2	1	0	1	1	1	1	1
AH-1Z:									
CATI	0	0	0	0	9	9	30	42	42
CAT II (W to Z)	0	0	0	9	15	28	50	60	50
CATII	0	0	0	0	0	0	0	0	0
CAT III	0	0	0	0	2	4	18	18	18
CAT IV	0	0	0	0	0	0	0	0	0
HH-1N: ( 2)									
CATI	0	0	0	0	0	0	0	0	0
CATII	8	2	0	0	0	0	0	0	0
CATIII	3	0	0	0	0	0	0	0	0

NOTES: (1) NUMBERS REFLECT ACTUAL FY06 PRODUCTION

(2) USN HH-1N FRS TRAINING ENDS FY-07

The H-1 portion is in update to support the near term planned increase of 2 HMLAs

# Section 4 ---- Marine Air Command & Control System (MACCS) Plan

Marine Air Command and Control System	4-2
Aviation Command and Control (C2) Transformation Strategy	4-4
Aviation Command and Control (C2) Bridging Systems	4-5
Marine Air Command and Control System (MACCS) Missions	4-6
Aviation C2 and Sensor Strategy	4-7
Aviation C2 Weapons Strategy	4-8
Marine Tactical Air Command Squadron Plan (MTACS)	4-9
Marine Air Support Squadron (MASS) Plan	4-10
Marine Air Control Squadron (MACS) Plan	4-11
Low Altitude Air Defense (LAAD) Battalion Plan	4-12
Aviation Command and Control (C2) Transformation Task Force (TTF) Description	4-13

#### Marine Air Command and Control System (MACCS)

**Proposed Increase of MACG End Strength**: Due to the growing demands of the Global War on Terrorism and CMC's commitment to provide our Nation a MAGTF capable across the spectrum of conflict, APC has recommended specific changes to MACG structure to meet these requirements. These changes are increases in personnel and equipment in Marine Air Control Squadrons (ATC Dets only), Marine Air Support Squadrons, Marine Wing Communications Squadrons, and Marine Unmanned Aerial Vehicle Squadrons. Increases in personnel (not equipment) are also planned in Marine Air Control Group Headquarters and Marine Tactical Air Command Squadrons. The final decision to increase MACG end strength is expected during early CY 2007.

The Marine Air Control Group (MACG) provides the ACE commander with the MACCS agencies necessary to exercise command and control of aviation and air defense assets to support MAGTF, naval, and joint operations. These agencies provide the ability to plan, supervise, and direct the execution of the six functions of Marine Aviation.

In order to meet the challenges and demands of Expeditionary Maneuver Warfare, Sea Basing, Distributed Operations, and Irregular Warfare, the Aviation C2 community is continually assessing communications and data fusion capabilities; improved modularity and mobility; life cycle support; streamlined training pipelines; and adaptation to future shipboard and joint mandated C4ISR systems.

One of Marine Aviation's highest priorities is the transformation of our Aviation C2 (AC2) systems to ensure the MACCS prepares for emerging operational environments while continuing to support current operations. Success in the future fight requires capability increases in the following areas:

**Deployability** - Reduced operations and logistics footprint, modularity and commonality of equipment with a focus on EMW. **Flexibility** – Multi-function nodes that can distribute MACCS functions across the network; decentralized operations empowered by shared battlespace awareness; open architecture suites that can quickly integrate new technology and adapt to future environments. **Integration** – Planned migration to MAGTF C2. <u>Manpower and Training</u> – Shift from highly focused single function specialties into broader skill areas.

<u>Adaptability</u> – Operate afloat, ashore, airborne and during transition. <u>Data Fusion</u> – Common, real-time, fused operational and tactical pictures.

MACCS Transformation will focus on three fundamental tenets: multifunction operations, manpower and training, and cross-functional organizations. The operational capability provided by multi-function operation centers will provide improved tactical and operational flexibility. Manpower and training changes will allow a shift toward broader skill areas. In accordance with decisions made during the Feb 2007 Marine Air Board, MACCS Transformation will begin in the form of incremental reorganization of existing units coincident with the fielding of CAC2S. The initial transition will be formed from a Marine Air Control Squadron with a modified mission to include the ability to perform functions of the DASC in a multi-function operation center. Transformation of MACCS will culminate in reorganization to crossfunctional commands capable of multi-function C2 operations at the squadron/battalion level by 2015. The Aviation C2 Family of Systems is the materiel enabler of MACCS Transformation and will enhance deployability, integration and data fusion. A comprehensive two year DOTMLPF evaluation is on-going and is led by the AC2 TTF Office. The AC2 TTF, MACCS-X and Operating Forces will evaluate and validate prospective DOTMLPF changes.

# Aviation Command & Control Transformation Task Force (TTF)

The Deputy Commandant (DC) for Aviation and the Commanding General (CG) of Marine Corps Combat Development Command (MCCDC) chartered the Aviation Command and Control Transformation Task Force (TTF) in November 2002 to ensure the effective introduction of new Aviation C2 Family of Systems (FoS) into the operating forces. The TTF provides a proactive mechanism for HQMC advocates, CG MCCDC, acquisition commands, supporting establishment activities, and the operating forces to formulate and implement changes to the DOTMLPF pillars associated with the fielding of the Aviation C2 FoS. Its membership comprises operating forces and supporting establishment stakeholders in the transformation process.

During July 2005, the DC for Aviation established the MACCS-X Operational Development Team (ODT) at Camp Pendleton, California. The ODT supports developmental and operational testing of the Aviation C2 FoS. It also evaluates new organizational structures, validates recommended changes to DOTMLPF, and aids in developing a robust concept of employment. During FY07 the ODT will be comprised of 31 Marines.

#### Family of Systems (FoS)

In order to align concept development, capabilities required, and budgeting activities with the vision for Aviation C2 the following definition is provided:

The Aviation C2 FoS is defined as an <u>expeditionary</u> family of <u>scalable</u>, <u>multi-mission</u>, Marine Aviation C2 systems that are <u>fundamentally joint</u> and <u>network centric</u>. The Aviation C2 FoS exploits the fusion of C2, sensors and weapons information to enable distributed forces to achieve rapid decision superiority and spawn massed effects across the battlespace. The FoS is <u>adaptive</u> <u>and continuously enhanced</u> to optimize Joint synergy and future MAGTF capabilities through a spiral, collaborative, capabilities development and transformation process. We must have systems and agencies that are:

#### Expeditionary:

• Highly mobile (HMMWV-A2) and transportable (MV-22/CH-53, KC-130) to support distributed forces

· Seabase-able to defeat enemy anti-access and area denial

#### Scalable:

- Modular hardware to conform to various tasks dependent on requirements
- Span the spectrum of conflict

#### Multi-Mission:

- *Mission-tailorable operation facilities; single or multifunction*
- Enabling the distribution and phasing of control across the battlespace

#### Fundamentally Joint:

- Compatible and interoperable with Joint, Navy shipboard, and Aviation forces
- Compliant with all Joint mandates

#### Network Centric:

• Enabler of information superior operations that generate combat power by networking sensors, decision makers and shooters to achieve shared awareness, increased speed of command, higher tempo of operations, greater lethality, increased survivability, and self-synchronization

#### Adaptive and Continually Enhanced:

- Flexible to meet the challenges of new operational environments and emerging joint concepts
- Relentlessly improved to outpace enemy capabilities through a spiral process of innovation within a culture of continual transformation



### **Aviation C2 Transformation Strategy**

The systems that will provide this next-generation AC2 capability include:

#### **Common Aviation Command and Control System**

(CAC2S): The CAC2S is the command and control component of the Aviation C2 family of systems. CAC2S fuses real-time, non-real-time, and near real-time data from sensors, weapon systems, and C2 systems into a single integrated display. CAC2S replaces six disparate legacy platforms and provides an expeditionary and common Joint air C2 capability for Marine Aviation that is employable from the sea base, ashore, and in an airborne node. It will provide aviation command posts, air defense, air operations, and air traffic control capabilities.

CAC2S increment 1 (current increment) consists of hardware and software replacement for the Tactical Air Operations Center (TAOC), Tactical Air Command Center (TACC), and Direct Air Support Center (DASC). Follow-on increment requirements will be integrated into Air Traffic Control (ATC), Airborne C2 node and the overall MAGTF C2 systems strategy. CAC2S and Command and Control Personal Computer (C2PC) are the foundation for MAGTF C2. MAGTF C2 spiral 0 integrates CAC2S increment 1 and C2PC version 7.0 (IOC 08). All the capabilities inherent in CAC2S and C2PC will be displayed on one screen. The end state for MAGTF C2 is one C2 system that will support C2 requirements for the MAGTF from planning and execution to redeployment.

#### Ground/Air Task Oriented Radar (G/ATOR): The

G/ATOR system is a 3D, HMMWV mounted, short/medium range radar designed to detect targets such as cruise missiles, air breathing targets (ABTs), rockets, mortars, and artillery shells. G/ATOR supports Air Defense, Air Surveillance, Air Traffic Control, and Counter Battery/Target Acquisition.

**AN/TPS-59**: The AN/TPS-59 is a proven system with enormous capability to support the MAGTF and will be upgraded in the near future through a Product Improvement Program (PIP). The existing AN/TPS-59 (V) 3 radar system will evolve through a series of product improvements which include technology upgrades, component downsizing and expeditionary mobility modifications . The AN/TPS-59 PIP will continue to provide a long-range surveillance capability to the MAGTF. It also provides a unique capability of tracking and calculating launch points and impact points of Theater Ballistic Missiles. This system will meet the MAGTF surveillance requirement for a 3D expeditionary long range radar during joint/combined operations.

**Composite Tracking Network (CTN)**: CTN is the adaptation of the US Navy's Cooperative Engagement Capability (CEC) modified to link our organic C2, sensor, and weapons. CTN is an essential element of the future Marine Corps communications architecture. MS B is expected during 3<sup>rd</sup> Qtr FY 07. IOC is scheduled for 3<sup>rd</sup> Qtr FY 09.

The full capability of the Aviation C2 FoS will be achieved in the 2012-2015 timeframe. In order to bridge the gap from the legacy MACCS to the future aviation C2 capability several transitional systems will be procured and fielded.

### **Aviation C2 Bridging Systems**

Interim systems that provide a bridge until the fielding of the next generation of Aviation C2 systems:

**AN/UYQ-3B, DASC (AS):** Seven airborne DASC AN/UYQ-3B bridging systems have been fielded. The AN/UYQ-3B can currently only be employed in the R/S/T models of the KC-130. Future increments of CAC2S will include an airborne C2 capability.

Marine Air Traffic Control and Landing System (MATCALS)/Air Traffic Navigation Integration and Coordination System (ATNAVICS): The MATCALS is a family of systems providing all-weather Air Traffic Control (ATC) services for expeditionary operations ashore. To bridge USMC ATC capabilities into the future, ATNAVICS will be procured to replace some of the current precision approach and air surveillance radar sensors and C2 MATCALS sub-systems. It will be interoperable and scalable, transportable by HMMWV, and requires substantially less airlift (versus legacy systems) for intratheater movement. Some portion of the legacy MATCALS will be maintained until ATC functions can be migrated to CAC2S and G/ATOR.

**AN/TPS-59 (V) 3:** The sustainment of the Marine Corps only long-range air surveillance radar is required to support the readiness of a high demand low density asset that was deployed during OEF and OIF. The necessary resources to maintain this capability are critical for Aviation to fully meet the needs of the MAGTF.

Marine Air Command and Control System (MACCS) Legacy Sustainment: MACCS legacy systems are providing air command and control in support of the Global War on Terrorism. Legacy sustainment is required to keep our current force operating until our future systems are fielded. MACCS legacy systems are annotated in the glossary. **Ground Based Air Defense (GBAD):** Equipment modernization of Low Altitude Air Defense (LAAD) units continues through FY 07 with the fielding of the Advance MANPADS. This capability enhances the units' ability and survivability on the battlefield by providing armored HMMWVs equipped with improved firepower (M2 .50 and M240 machine guns), optics and navigational aids. Additionally, the LAAD Battalions have been formerly assigned a secondary role of ground defense of aviation sites when not deployed in an air defense role.

# The following system is pending future programmatic decision:

JICO Support System (JSS): The Joint Interface Control Officer (JICO) Support System (JSS) is an emerging, automated, network-centric JICO tool set which supports the planning, management, and execution of the Multi-TADIL Network (MTN). This in turn provides data for the development of the Common Tactical Picture (CTP), Common Operational Picture (COP), and enhances the Joint Force Commander's (JFC) battlespace awareness. The Marine Corps took receipt of a JSS Engineering Development Model (EDM) during December 2005. Efforts to fund JSS will continue through future funding requests. The Marine Corps will participate in the JSS Developmental Test (DT) during FY 07 with the EDM operating from MCTSSA (Camp Pendleton).

### Marine Aviation Command & Control System Missions

<u>Marine Air Control Group</u> (MACG): Coordinate all aspects of Air Command and Control and Air Defense within the Marine Aircraft Wing. Provide the command and staff functions for the MACG commander when deployed as part of the Aviation Combat Element (ACE) of the Marine Air-Ground Task Force (MAGTF).

<u>Marine Tactical Air Command Squadron</u> (MTACS): Provide equipment, maintenance, and operations for the Tactical Air Command Center (TACC) of the ACE, as a component of the MAGTF. Equip, man, operate, and maintain the current operations section of the TACC. Provide and maintain a facility for the TACC future operations section; install and maintain associated automated systems.

<u>Marine Air Control Squadron</u> (MACS): Provide air surveillance and the control of aircraft and surface-to-air weapons for antiair warfare; continuous all-weather radar and non-radar ATC services, and airspace management in support of a MAGTF.

<u>Marine Air Support Squadron</u> (MASS): Provide Direct Air Support Center (DASC) capabilities for control and coordination of aircraft operating in direct support of MAGTF forces.

**Low Altitude Air Defense (LAAD):** To provide close-in, low altitude, surface-to-air weapons fires in defense of MAGTF assets defending forward combat areas, maneuver forces, vital areas, installations, and/or units engaged in special/independent operations. To provide a task organized ground security force in defense of MAGTF air sites.

<u>Marine Wing Communications Squadron (MWCS)</u>: Provide expeditionary communications for the ACE of a Marine Expeditionary Force (MEF), including the phased deployment of task-organized elements thereof.

<u>Marine Unmanned Aerial Vehicle Squadron (VMU)</u>: Operate and maintain an unmanned aerial vehicle (UAV) system to provide unmanned aerial reconnaissance support to the MAGTF. The control of aircraft and missiles integrates the other five functions of Marine Aviation by providing the commander the ability to exercise command and control authority over Marine Aviation assets. The overarching operational goal for Marine Aviation's C2 capability is to develop battlespace awareness through the effective linking of C2 platforms, sensors, weapons, aviation platforms, and warriors to bring about the massing of desired effects in a timely manner.

The Marine Air Command and Control System (MACCS) will continue as a premier expeditionary Command and Control (C2) capability, enabling timely decision-making and execution in a networked environment. Flexible and sustainable, Aviation C2 will be characterized by modular, scalable and mobile warfighting capabilities within a Family of Systems (FoS) that integrates aviation across the spectrum of conflict.

Fielding plans for all new equipment is representative only and can be modified based on the desires of the operating forces and funding available. POM 08 priorities may change and may impact equipment delivery timelines outlined in this AVPLAN.

### Aviation C2 and Sensor Strategy



# **Aviation C2 Weapons Strategy**



Stinger



Joint & Service Capability Assessments •OPFOR Input •IAMD JIC •IAMD CBA •TAMD MA ICD •FEA •AMD Study

> New Start FY 10



Threat -Cruise Missiles -RAM -Fixed Wing -Rotary Wing -UAVs

The assessment of our air and missile defense needs is a continuous process that revolves around the existing threats to and the needs of the MAGTF.

#### MARINE TACTICAL AIR COMMAND SQUADRON (MTACS) PLAN

CURRENT FORCE:

FORCE GOAL: 4 CA(2.5) (TA(C)\* 4 THEATER BATTLE MANAGEMENT CORE 5YSTEM (TBM(C5)

	,	2007	2008	2009	2010	2011	2012	2013	2014	20 15	20.16
		1234	1234	1234	1234	1234	1234	1234	1234		1234
UNIT/LOCATION	EQUIPMENT										
MACG-18 FUT											
MTACS-18	OLS/TBMCS/CZ							C	V		
MACG-28 CP											
MTACS-28	OLS/TBMCS/C2				C	V					
MACG-38 MIR											
MTACS-38	OLS/TBMCS/C2			C	V						
MACG-48 ILL											
MTACS-48 PST	OLS/TBMCS/CZ										

C = CAC2S TRANSITION BEGINS V = TRANSITION COMPLETE

FISCAL YEAR	07	08	09	10	11	12	13	14	15	16
TOTAL EQUIPMENT (AC/RC)										
88	6	4 4	4	3	2	2	2	1	1	1
TBM (5)**	6	4 4	4	3	2	2	2	1	1	1
CAC2S (TACC)	(	) 0	0	1	2	2	2	3	3	3
TOTAL	8	8 8	8	7	6	6	6	5	5	5

GENERAL NOTES: - TRANSITION PLAN IS NOTIONAL BY UNIT & LOCATION PENDING AVIATION (2) TTF RECOMMENDATION TO DO(A) - CTN IS INCLUDED IN THE CAC2'S TRANSITION

\* CAC2S NOTIONAL TACCNODE IS 3 PROCESSING DISPLAY SUB-SYSTEM (PDS), 1 SENSOR/DATA SUB-SYSTEM (SDS) AND 2 COMMUNICATION SYSTEM (CS).

\*\* TBMCS SOFTWARE WILL BE HOSTED ON CA2S

#### MARINE AIR SUPPORT SQUADRON (MASS) PLAN

#### **CURRENT FORCE:**

FORCE GOAL: 11 CAC25 \* 12 CAC25 (AIRBORNE C2 NODE) \*\*

		FY 07	FY08	FY 09	FY10	FY11	FY12	FY13	FY14	FY15	FY 16
		1234	1234	1234	1234	1234	1234	1234	1234	1234	1234
UNIT/LOCATION	EQUIPMENT										
MACG-18 FUT											
MASS-2	2 TSQ-207								C	1 V	
	2 UYQ-3B										
MACG-28 CP											
MASS-1	2 TSQ-207					D	V				
	1 UYQ-3B										
MACG-38 MIR											
MASS-3	2 TSQ-207			<u>C1</u>	V						
	1 UYQ-3B										
MACG-48 ILL											
MASS-6A MA	1 TSQ-207										C1 V
	1 UYQ-3B										TBD
MASS-68 MIR	1 TSQ-207										C1 V
	1 UY Q-3B										TBD

C1 = CAC2S TRANSITION BEGINS

C2 = CAC25 (AIRBN NODE) TRANSITION BEGINS - NOTE: NOT FUNDED IN CURRENT FYDP

V = TRANSITION COMPLETE

FISCAL YEAR	07	08	09	10	11	12	13	14	15	16			
FOTAL EQUIPMENT (AC/RC)													
TYQ-207	8	8	8	6	6	4	4	4	2	0			
UYQ-3B	6	6	6	6	6	6	6	6	6	6			
CAC25	0	0	0	3	3	6	6	6	9	11			
CAC2S(AIRBN NODE)	0	0	0	0	0	0	0	0	0	TBD			
TOTAL	14	14	14	15	15	16	16	16	17	17			

<u>GENERAL NOTE:</u> - TRANSITION PLAN IS NOTIONAL BY UNIT & LOCATION PENDING AVIATION C2 TTF RECOMMENDATION TO DC(A) - CTN IS INCLUDED IN THE CAC25 TRANSITION

\* CAC25 NOTIONAL MULTI-FUNCTION NODE IS 1 PROCESSING DISPLAY SUB-SYSTEM (PDS), 1 SENSOR/DATA SUB-SYSTEM (SDS) AND 1 COMMUNICATION SYSTEM (CS).

\*\* CAC2S NOTIONAL AIRBORNE C2 NODE IS 1 COMPOSITE SUBSYSTEM

#### MARINE AIR CONTROL SQUADRON (MACS)

CURRENT FORCE:	<u>ATC</u>	FORCE GOAL:	13 CAC2S (TAOC)*
	18 TSQ-131		9 CAC2S (ATC)*
	9 TACAN		41 G/ATOR
	9 TPS-73		9 ATNAVICS, 9 TACAN
	9 TPN-22		* 3 subsystems per CAC2S suite

		FY07	FY08	FY-09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
		1234	1234	1234	1234	1234	1234	1234	1234	1234	1234
UNIT/LOCATION	EQUIPMENT										
MACG-18 FUT											
MACS-4	2 TPS 59										
	2 TPS-63					G V					
	2 TPS-73		T				V				
	4 TAOM						C	V			
	2 TPN-22		Т				V	-			
	2 TACAN										
	4 TSQ-131										
MACG-28 CP											
MACS-2	2 TPS-59										
	1 TPS-63						G V				
	3 TPS-73	T			V						
	6 TAOM				C V						
	3 TPN-22	T			V						
	3 TACAN										
	6 TSQ-131										
MACG-38 MIR											
MACS-1	2 TPS 59										
	1 TPS-63					G V					
	3 TPS-73	T				V					
	6 TAOM		C	V							
	3 TPN-22	T				V					
	3 TACAN										
	6 TSQ-131										
MACG-48											
MACS-23 AUR	1 TPS-59										
	1 TPS-63								G V		
	3 TAOM										
MACS-24 DMN	1 TPS 59										
	1 TPS-63								G V		
	1 TPS-73					T V					
	3 TAOVIS										
	1 TPN-22					T V					
	1 TACAN										
	2 TSQ-131										

 $C = CAC2S TRANSITION BEGINS \\ G = G/ATOR TRANSITION BEGINS \\ T = ATNAVICS TRANSITION BEGINS \\ V = TRANSITION COMPLETE$ 

CAC2S TRANSISTION PLAN IS UNDER RE-EVALUATION. PLAN TO PUBLISH DURING SUMVER 2007.

GENERAL NOTE: TRANSITION PLAN AS DEPICTED IS NOTIONAL BY UNIT AND LOCATION PENDING AVIATION C2 TTF\_\_\_\_\_\_ RECOMMENDATION TO DC(A).

#### LOW ALTITUDE AIR DEFENSE (LAAD) BATTALION PLAN

#### CURRENT FORCE: 1ST STINGER BTRY 2ND LAAD BN 3RD LAAD BN

FORCE GOAL: 140 MANPADS

		FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16
		1234	1234	1234	1234	1234	1 2 3 4	1234	1234	1234	1234
UNIT/LOCATION	EQUIPMENT										
MACG-18											
1ST STINGER BTRY			D-Unit sch	neduled to	be deacti	ivated dur	ing FY 07 -	- result of	FY 06 CM	C decision	
MACG-28											
2ND LAAD	ADV MANPADS	M	V								
MACG-38											
3RD LAAD	ADV MANPADS	M	V								

#### D=FY 07 DEACTIVATION

#### GENERAL NOTE: 1) TRANSITION PLAN AS DEPICTED IS NOTIONAL BY UNIT AND LOCATION PENDING AVIATION C2 TTF RECOMMENDATION TO DC/A

V = TRANSITION COMPLETE

M = ADV MANPADS M2 & M240B FIELDING

FISCAL YEAR	07	08	09	10	11	12	13	14	15	16	
TOTAL EQUIPMENT (AC)											
ADV MANPADS	60	120	140	140	140	140	140	140	140	140	
TOTAL	60	120	140	140	140	140	140	140	140	140	

# AVIATION C2 TTF



# Section 5 --- Marine Rotary Wing/Tiltrotor Aviation Plan

Marine Rotary Wing/Tiltrotor Plan	5-2
Marine Medium Helicopter (HMM/HMH(D)/VMM) Plan	5-3
Marine Heavy Helicopter (HMH) Plan	5-6
Marine Light Attack Helicopter (HMLA) Plan	5-7
Marine Helicopter Squadron One (HMX-1) Plan	5-10
Marine Search and Rescue (SAR) Plan	5-11

### Marine Rotary Wing/Tiltrotor Aviation Plan:

<u>MARINE MEDIUM HELICOPTER SQUADRON (HMM)</u>: Support the MAGTF Commander by providing assault support transport of combat troops, supplies and equipment, day or night under all weather conditions during expeditionary, joint or combined operations.

<u>MARINE MEDIUM TILTROTOR SQUADRON</u> (VMM): Support the MAGTF Commander by providing assault support transport of combat troops, supplies and equipment, day or night under all weather conditions during expeditionary, joint or combined operations.

#### MARINE HEAVY HELICOPTER SQUADRON (HMH): Support

the MAGTF Commander by providing assault support transport of heavy weapons, equipment and supplies, day or night under all weather conditions during expeditionary, joint or combined operations.

#### MARINE LIGHT/ATTACK HELICOPTER SQUADRON (HMLA):

Support the MAGTF Commander by providing offensive air support, utility support, armed escort and airborne supporting arms coordination, day or night under all weather conditions during expeditionary, joint or combined operations.

#### MV-22:

#### DEVELOPMENTAL TEST: Ongoing.

<u>OPERATIONAL TEST/OPEVAL</u>: OT IIIA, final Block B testing in support of the Initial Operational Capability Decision, to be completed FY07. VMX-22 to move from MCAS New River, NC to NAS Patuxent River, MD FY08.

<u>INITIAL OPERATIONAL CAPABILITY (IOC)</u>: Will be achieved during FY-07 when the first VMM Squadron has an operational capability, to include Block-B aircraft and a complete set of logistics resources required for organizational and intermediate level maintenance for the aircraft and its systems.

#### **UH-1Y**:

DEVELOPMENTAL TEST: Ongoing.

<u>OPERATIONAL TEST/OPEVAL</u>: OT IIIA, final Block B testing in support of the Initial Operational Capability Decision, to be completed FY07.

INITIAL OPERATING CAPABILITY: Will be achieved during FY-08 when the first HMLA receives a three aircraft UH-1Y Detachment with required support equipment, technical publications, trained maintenance personnel and trained aircrew, to include initial spares with interim repair support in place and is capable of deploying for operational commitments.

#### AH-1Z:

<u>OPERATIONAL TEST/OPEVAL</u>: Phase II: 2<sup>nd</sup> & 3<sup>rd</sup> Qtrs FY-08

INITIAL OPERATING CAPABILITY: Will be achieved during FY-11 when the first HMLA receives a six Aircraft AH-1Z Detachment with required support equipment, technical publications, trained maintenance personnel, and trained aircrew, to include initial spares with Interim repair support in place and is capable of deploying for operational commitments.

#### CH-53K:

<u>DEVELOPMENTAL TEST</u>: 4<sup>th</sup> Qtr of FY-10 to 1<sup>st</sup> Qtr FY-15. <u>OPERATIONAL TEST/OPEVAL</u>: 1<sup>st</sup> Qtr FY-13 to 3<sup>rd</sup> Qtr FY-15. Operational Test and Evaluation for CH-53K to be assumed by VMX-22 in FY 11.

<u>INITIAL OPERATING CAPABILITY</u>: Will be achieved during FY 15 when the first HMH receives a four aircraft CH-53K detachment with required support equipment, technical publications, trained maintenance personnel and trained aircrew, to include initial spares with interim repair support in place and is capable of deploying for operational commitments.

### **MV-22 Transition Timeline**

FORCE GOAL FY17: 18 AC VMM SQDN x 12 MV-22

4 RC VMM SQDN x 12 MV-22

WEST COAST

Complete FY15

1 FRS SODN x 20 MV-22

CURRENT FORCE: 3 VMM SQUADRONS

CURRENTLY IN TRANSITION

11 AC SQDN x 12 CH-46E

2 RC SQDN x 12 CH-46E

1 FRS x 18 CH-46E

FY-08 FY09 FY10 FY11 **FY12 FY07** FY13 **FY14 FY15** FY16 **FY17** 1 FRS x 20 MV-22 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 1 2 3 4 UNIT/LOCATION PMAA EAST COAST VMMT-204 20 MV-22 VMM-263 12 MV-22 V VMM-162 12 MV-22 VMM-266 12 MV-22 V V 12 CH-46E м HMM 12 CH-46E ν HMM М HMM 12 CH-46E М V VMM(1) 12 MV-22 М V WEST COAST М v HMM 12 MV-22 HMM 12 MV-22 Μ ν HMM 12 CH-46E м V М V HMM 12 CH-46E V HMM 12 CH-46E м V HMM 12 CH-46E M 18 CH-46E V HMMT м WESTPAC V VMM(2) 12 MV-22 M М V HMM 12 CH-46E v HMM 12 CH-46E м м V VMM-463 12 MV-22 RESERVES М V HMM 12 CH-46E HMM 12 CH-46E М V HMM 12 CH-46E М HMM 12 CH-46E М PMAA – PRIMARY MISSION AIRCRAFT AUTHORIZATION

EAST COAST

Complete FY10

M - MV-22 TRANSITION BEGINS

V - MV-22 TRANSITION COMPLETE/ENTERS MATURATION AND PTP PHASE

VMM(1)(2) –VMM SQUADRON BASED ON TRANSITION OF CH-53D SQDN PREVIOUSLY PLANNED TO TRANSITION TO MV-22 NOW TRANSITIONING TO CH-53K. (1) REMAINS ON EAST COAST, (2) PCS TO WEST PAC. VMM-463 – CADRE HMH (CH-53D) REDESIGNATED AND TRANSITIONED TO VMM MARFORRES

Complete FY18

WESTPAC

Complete FY16

#### MARINE MEDIUM HELICOPTER/TILTROTOR (HMM/VMM) PLAN

	FY07	FY-08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	
FOTAL SQUADRONS/UNIT PMAA/PTAA												
AC CH-46E	12-12	11-12	9-12	7-12	5-12	3-12	1-12	0-0	0-0	0-0	0-0	
AC MV-22	3-12	4-12	6-12	8-12	10-12	12-12	14-12	15-12	15-12	15-12	15-12	
RC CH-46E	2-12	2-12	2-12	2-12	2-12	2-12	2-12	1-12	0-0	0-0	0-0	
RC MV-22	0-0	0-0	0-0	0-0	0-0	0-0	0-0	1-12	2-12	2-12	2-12	
CH-46E FRS	1-18	1-12	1-12	1-12	1-12	0-0	0-0	0-0	0-0	0-0	0-0	
MV-22A FRS	1-20	1-20	1-20	1-20	1-20	1-20	1-20	1-20	1-20	1-20	1-20	

	FY07	FY-08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17			
PAA PLAN	AA PLAN													
AC/RC PMAA														
CH-46E	144	120	96	72	48	24	24	24	0	0	0			
MV-22B	48	72	96	120	144	168	192	216	240	240	240			
TOTAL PMAA	192	192	192	192	192	192	216	240	240	240	240			
FRS PTAA														
CH-46E	18	12	12	12	12	0	0	0	0	0	0			
MV-22A	20	20	20	20	20	20	20	20	20	20	20			
TOTAL FRS PTAA	38	32	32	32	32	20	20	20	20	20	20			
TOTAL PAA	230	224	224	224	224	212	236	260	260	260	260			

NOTE: TRANSITION PLAN AS DEPICTED MAY CHANGE BASED ON FINAL OUTCOM E OF THE MV-22

PROCUREMENT PLAN CONTAINED IN THE FY-06 PRESIDENTIAL BUDGET SUBMISSION.

LONG RANGE PLANNING:

~ FUTURE STUDY REQUIRED TO DETERMINE 3RD MAW MV-22 LAYDOWN.

# MV-22 Transition Task Force Cross Functional Team (CFT) Working Issues

<ul> <li>CFT 1 (DOCTRINE &amp; TRAINING)</li> <li>Completed <ul> <li>Established Ready for Deployment Criteria in support of first VMM Deployment</li> </ul> </li> <li>On-going <ul> <li>Review of Pilot Training Requirements (PTR) for Fleet Replacement Squadron (FRS) for FY07 and FY08</li> <li>Refining Transition Plan for MV-22</li> <li>VMX-22 move to Patuxent River, MD in FY08</li> </ul> </li> <li>Long Term <ul> <li>West coast Transition Strategy</li> </ul> </li> </ul>	<ul> <li>CFT 2 (ORGANIZATION &amp; PERSONNEL)</li> <li>Completed <ul> <li>Stabilized VMM-263 and VMM-162 for deployment</li> </ul> </li> <li>On-going <ul> <li>Determining manpower impacts on projected deployment windows for MV-22</li> <li>Stabilization of MV-22 community to support current transition plan (Fleet/FRS)</li> <li>VMX-22 move to Patuxent River, MD in FY08</li> </ul> </li> <li>Long Term <ul> <li>West Coast Transition Strategy</li> </ul> </li> </ul>
<ul> <li>CFT 3 (MATERIAL &amp; FACILITIES)</li> <li>Completed <ul> <li>Maintenance Training Detachment and Funding Complete (Aug 05)</li> </ul> </li> <li>On-going <ul> <li>Deployment Operational Capabilities Sustainability Roadmap (DOCSR)</li> <li>Block B Supportability</li> <li>VMMT-204 instructor manning in the maintenance department</li> <li>Outlying Field (OLF) rebuilding plan</li> <li>3D MAW Environmental Impact Statement (Dec 06)</li> <li>Phase III (1<sup>st</sup> sqdn deployment- completion of MCAS NR transition)</li> <li>Logistics posture analysis of current and programmed MV-22 POR</li> <li>VMX-22 move to Patuxent River, MD in FY08</li> </ul> </li> <li>Long Term <ul> <li>West coast-Dual site (MCAS Miramar, Camp Pen)</li> <li>West PAC Environmental Impact Statement (FY09)</li> <li>West Pac basing and transition schedule.</li> <li>V-22 New hanger requirements review (Pax River)</li> </ul> </li> </ul>	MV-22 CHARTER: 01 OCT 03 TTF DATES LAST: 4-5 DEC 06 NEXT: June 07

#### MARINE HEAVY LIFT (HMH) PLAN

CURRENT FORCE: 6 AC SQDN X 16 CH-53E 3 AC SQDN X 10 CH-53D 2 RC SQDN X 8 CH-53E 1 FRS X 17 CH-53E FORCE GOAL FY 17: 9 AC SQDN X 16 CH-53K 6 AIRCRAFT RC DET 1 FRS X 21 CH-53K

		FY07	FY-08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
		1234	1 2 3 4	1234	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1234	1 2 3 4	1234	1 2 3 4
UNIT/LOCATION	PMAA											
EAST COAST												
HMT-302	17 CH-53E									К		
HMH-461	16 CH-53E											
HMH-464	16 CH-53E											
HMH-366 (1)	16 CH-53E		А									
WEST COAST												
HMH-361	16 CH-53E											
HMH-462	16 CH-53E											
HMH-465	16 CH-53E											
HMH-466	16 CH-53E											
WEST PAC												
HMH-362	10 CH-53D					P = 16						K (4)
HMH-363	10 CH-53D					P = 16						
HMH-463	10 CH-53D					С					Μ	
RESERVES												
HMH-772 (2)	8 CH-53E		В									
HMH-769 EDW (3)	8 CH-53E		D									

#### A = ACTIVATE

D = DE-ACTIVATE

B = BREAK DOWN TO DET OF 6 AIRCRAFT

P = PLUS-UP IN PMAA

C = CADRE SQUADRON

M = ENTERS MV-22 TRANSITION

V = TRANSITION COMPLETE

K = INTRODUCTION OF CH-53K

SPECIFIC NOTE:

1) HMH-366 ACTIVATE FOLLOWING CONSOLIDATION OF HMH RC STRUCTURE TO AC STATUS IN FY-08

2) AVIATION TRANSITION STRATEGY HMH-769/772 CONSOLIDATE REMAINING ASSETS INTO RC DET OF 6 AIRCRAFT. 3) HMH-769 DE-ACTIVATED IAW AVATION TRANSITION STRATEGY.

4) SQUADRON RELOCATES TO MIRAMAR FY18

-													
	FY07	FY08	FY-09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17		
OTAL SQUADRONS/UNIT PMAA													
AC CH-53E	6-16	7-16	7-16	7-16	7-16	7-16	7-16	7-16	7-16	7-16	7-16		
AC CH-53D	3-10	3-10	3-10	3-10	2-16	2-16	2-16	2-16	2-16	2-16	1-16		
AC CH-53K	0	0	0	0	0	0	0	0	0	0	1-16		
RC CH-53E	2-8	DET - 6											

#### MARINE LIGHT / ATTACK HELICOPTER (HMLA) PLAN

#### CURRENT FORCE:

6 AC SQDN X 18 AH-1W/9 UH-1N 2 RC SQDN X 18 AH-1W/9 UH-1N 1 FRS X 20 AH-1W/10 UH-1N FORCE GOAL:

9 AC SQDN X 18 AH-1Z/9 UH-1Y 1 RC SQDN X 18 AH-1Z/9 UH-1Y 1 FRS X 18 AH-1Z/10 UH-1Y

		FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
		1234	1234	1234	1234	1234	1234	1234	1234	1234	1234	1234
UNIT/LOCATION	PMAA											
3rd MAW												
HMLA-169	18 AH-1/9 UH-1		Y	V	Z		V					
HMLA-367	18 AH-1/9 UH-1			Y V			Z	V				
HMLA-369	18 AH-1/9 UH-1			Y	V			Z	V			
HMLA-267	18 AH-1/9 UH-1				Y	V			Z	V		
HMLA/T-303 (1/2)	18 AH-1/10 UH-1	Y	V	Z	V							
2nd MAW												
HMLA-167	18 AH-1/9 UH-1					Y	V			Z	V	
HMLA-269	18 AH-1/9 UH-1						Y	V			Z V	
HMLA-467 (3)	18 AH-1/9 UH-1		N/V	V				Y	V			Z V
HMLA-567 <b>(5)</b>	18 AH-1/9 UH-1					Y		V			Z	V
1st MAW												
HMLA-469 <b>(4)</b>	18 AH-1/9 UH-1			N/V	V				Y V			Z
4th MAW												
HMLA-773	18 AH-1/9 UH-1								Y	V		
HMLA-775 (3)	18 AH-1/9 UH-1											

Y = YANKEE TRANSITION BEGINS

Z = ZULU TRANSITION BEGINS

**B = SIMULTANEOUS TRANSITION** 

V = TRANSITION COMPLETE

N/W = UH-1N / AH-1W

#### GENERAL NOTES:

~ TRANSITION PLAN REFLECTS INCREASE IN PROCURMENT OBJECTIVE (137 UH-1Y AND 250 AH-1Z) TO SUPPORT 9 AC AND 1 RC HMLAS BY FY11.

~ TRANSITION PLAN AS DEPICTED IS DC(A) APPROVED BY LOCATION. INDIVIDUAL UNITS ARE NOTIONAL PENDING MARFOR/MAW INPUT.

#### SPECIFIC NOTES:

1. HMLA/T-303 UH-1Y RFT 2ND QTR FY08, AH-1Z RFT 3RD QTR FY10.

2. ANTICIPATE HMLA/T-303 PTAA: ~FY10 FOR UH-1Y AND ~FY16 FOR AH-1Z.

3. ONE RC HMLA SQDN (HMLA-775) WILL TRANSITION TO AN AC HMLA SQDN (HMLA-467) IN FY08. 1 YEAR PERIOD IOC TO FOC. FY08 PMAA 12 AH-1W / 6 UH-1N. FY10 PMAA 18 AH-1W / 9 UH-1N.

4. HMLA-469 STAND-UP AS AC HMLA IN FY09. 2 YEAR PERIOD IOC TO FOC.

5. HMLA-567 STAND-UP AS AC HMLA IN FY11. 2 YEAR PERIOD IOC TO FOC.

#### MARINE LIGHT/ATTACK (HMLA) PLAN

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
TOTAL SQUADRONS/UNIT PM.	AA										
AC AH-1W <b>(1)</b>	6-18	7-18	8-18	8-18	8-18	8-18	7-18	6-18	5-18	3-18	1-18
AC UH-1N (1)	6-9	7-9	6-9	5-9	4-9	2-9	1-9	0-0	0-0	0-0	0-0
RC AH-1W (1)	2-18	1-18	1-18	1-18	1-18	1-18	1-18	1-18	1-18	1-18	1-18
RC UH-1N (1)	2-9	1-9	1-9	1-9	1-9	1-9	1-9	0-0	0-0	0-0	0-0
AC AH-1Z <b>(1)</b>	0-0	0-0	0-0	0-0	1-18	1-18	2-18	3-18	4-18	6-18	8-18
AC UH-1Y (1)	0-0	0-0	2-9	3-9	5-9	7-9	8-9	9-9	9-9	9-9	9-9
RC AH-1Z <b>(1)</b>	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
RC UH-1Y (1)	0-0	0-0	0-0	0-0	0-0	0-0	0-0	1-9	1-9	1-9	1-9
	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
PAA PLAN											
AC/RC PMAA											
AH-1W/UH-IN	144-72	144-72	162-63	162-54	162-45	162-27	144-18	126-0	108-0	72-0	36-0
AH-1Z/UH-1Y	0-0	0-0	0-18	0-27	18-45	18-63	36-72	54-90	72-90	108-90	144-90
TOTAL AC/RC TACTICAL	144-72	144-72	162-81	162-81	180-90	180-90	180-90	180-90	180-90	180-90	180-90
FRS PTAA											
AH-1W/UH-IN	20-10	20-10	20-10	20-8	18-6	18-6	18-4	18-0	14-0	10-0	8-0
AH-1Z/UH-1Y	0-7	0-7	5-7	10-10	10-10	10-10	10-10	14-10	18-10	20-10	20-10
TOTAL FRS PTAA	20-17	20-17	25-17	30-18	28-16	28-16	28-14	32-10	32-10	30-10	28-10
TOTAL PAA	164-89	164-89	187-98	192-99	208-106	208-106	208-104	212-100	212-100	210-100	208-100

GENERAL NOTES:

1. IN FY08, 1 RC HMLA DEACTIVATED AND 1 AC HMLA ACTIVATED. IN FY09 1 AC HMLA ACTIVATED. IN FY11 1 AC HMLA ACTIVATED. HMLA PMAA DOES NOT CHANGE. TOTAL AC/RC TACTICAL PMAA INCREASES FROM 144/72 IN FY07 TO 180/90 IN FY11.

# UH-1Y/AH-1Z Transition Task Force Cross Functional Team (CFT) Working Issues

<ul> <li>CFT 1 (DOCTRINE AND TRAINING)</li> <li>Completed <ul> <li>Simulator Capacity Study (Sep 06)</li> </ul> </li> <li>On-going <ul> <li>T&amp;R Manual rewrite and staffing (TECOM)</li> <li>OPEVAL Phase II planning</li> </ul> </li> <li>Long Term <ul> <li>Fielding Plan</li> <li>ATS CamPen Stand-up (FY07) – CFT II Task</li> <li>CNATTMARU Throughput Model Development</li> <li>MARU FORAC (Brief at next TTF)</li> <li>FRS TIP Throughput Validation (Brief at next TTF)</li> </ul> </li> </ul>	<ul> <li>CFT 2 (ORGANIZATION AND PERSONNEL)</li> <li>Completed <ul> <li>FRS PTR/throughput validation</li> <li>Structure mapped to MAG-39 for initial Tactics Training Unit (TTU) stand-up</li> </ul> </li> <li>On-going <ul> <li>Identify sourcing options for OPEVAL Phase II</li> <li>Identify long-term structure solution for TTU</li> <li>Realign FRS structure and manning to support future requirements <ul> <li>Incorporate Contract Maintenance Support (CMS) into FRS</li> </ul> </li> <li>Long Term <ul> <li>Staffing of FRS, CNATTMARU, TTU and OPEVAL</li> </ul> </li> </ul></li></ul>
<ul> <li>CFT 3 (MATERIAL AND FACILITIES)</li> <li>Completed <ul> <li>FIT Standup (2nd Qtr FY06)</li> <li>logistics Support Plan for Helmet Mounted Display Sys (Jul 04)</li> </ul> </li> <li>On-going <ul> <li>Maintenance Publication Verification Plan <ul> <li>Y (Jan – Mar 07)</li> <li>Z Pub Verification TBD</li> <li>Damage Limits and Tolerance (DL&amp;T)/Structural Repair Manual <ul> <li>Funded, PMA Program Update (Jul 07)</li> <li>Consolidated FIT Charter (Jul 08)</li> <li>3d MAW EA Completion (1Q FY07)</li> <li>Contract Maintenance Support (CMS) for FRS</li> </ul> </li> <li>Long Term <ul> <li>1<sup>st</sup> MAW Site Survey – Futenma (FY07)</li> <li>PBL Strategy/Plan (Follow-on to LORA/LSA)</li> <li>1st MAW EA Completion (2Q FY09)</li> </ul> </li> </ul></li></ul></li></ul>	<ul> <li>H-1 UPGRADES CHARTER: 01 OCT 03 TTF DATES LAST: JAN 07 NEXT: JUN 07</li> <li>Issues:</li> <li>Thales Optimized Top Owl Helmet Mounted Display (HMSD) Testing and Fielding Plan</li> <li>OPTEMPO effect on transition</li> </ul>

#### CURRENT FORCE: VH-3D X 11 VH-60N X 8 CH-46E X 7 CH-53E X 7

#### FORCE GOAL: VH-71 X 23 (INC 2) MV-22B X 8 CH-53K X 7

		FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
		1234	1234	1 2 3 4	1234	1 2 3 4	1234	1234	1 2 3 4	1234	1234	1234
UNIT/LOCATION	POAA											
HMX-1 QUANTICO	11 VH-3D				Р					V		
	8 VH-60N								Р			V
	7 CH-46E										М	
	7 CH-53E											

P = PRESIDENTIAL HELO REPLACEMENT TRANSITION BEGINS

M = MV-22B TRANSITION BEGINS

V = TRANSITION COMPLETE

LONG RANGE PLANNING: CH-53E/CH-46 OT ELEMENT REMAINS IN PLACE TO CONT FOT&E. CH-53K OT WILLTRANSITION TO VMX-22 IN FY12.

CH-53E TO CH-53K TRANSITION PROJECTED NO EARLIER THAN FY17

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
AIRCRAFT TYPE/POAA											
VH-3D	11	11	11	11	7	7	3	3	0	0	0
VH-60N	8	8	8	8	8	8	8	8	6	2	0
CH-46E	7	7	7	7	7	7	7	7	7	5	0
CH-53E	7	7	7	7	7	7	7	7	7	7	7
VH-71 (INCREMENT 1)	0	0	4	4	4	4	4	4	4	4	4
VH-71 (INCREMENT 2)	0	0	0	0	0	4	4	9	14	19	23
MV-22B	0	0	0	0	0	0	0	0	0	2	8
TOTAL HMX-1 POAA	33	33	37	37	37	37	33	38	38	39	42

ASSUMPTIONS: AIRCRAFT DELIVERIES ARE TO HMX-1, BASED ON VH-71 PROPOSED RESTRUCTURE PROGRAM SCHEDULE

~ 4 VH-71 (INC. 1) DELIVERED FY09 TO SUPPORT OCT-DEC 09 INC 1 IOC. ; FIRST 4 VH-3D PHASED OUT DURING FY11

- ~ 4 VH-71 (INC. 2, LRIP 2) DELIVERED FY12 (INC. 2 IOC)
- $\sim 4$  VH-3D PHASED OUT DURING FY13
- $\sim 5$  VH-71 Delivered Fy14; 2 VH-60N and last 3 VH-3D Phased out during Fy14
- $\sim 5$  VH-71 Delivered FY15; 4 VH-60N Phased out FY15
- $\sim 5$  VH-71 Delivered FY16; LAST 2 VH-60N Phased out FY16
- $\sim$  4 VH-71; 2 MV-22 DELIVERED FY16; 2 CH-46E PHASED OUT FY16

#### MARINE SEARCH AND RESCUE (SAR) PLAN

#### CURRENT FORCE:

FORCE GOAL: 6 X UH-1Y

		FY07	FY08	FY-09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1234	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1234
UNIT/LOCATION	POAA											
MCAS NKT												
VMR-1	3 HH-46D	E V						YV				
MCAS NBC												
	3 HH-46D											
MCAS NYL												
	3 HH-1N					YV						

E = HH-46E TRANSITION

D = DEACTIVATION

Y = YANKEE TRANSITION

V = TRANSITION COMPLETE

	<b>FY07</b>	FY08	FY-09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
SAR PAA PLAN											
SAR POAA											
HH-46D	0	0	0	0	0	0	0	0	0	0	0
HH-46E	3	3	3	3	3	3	0	0	0	0	0
HH-1N	3	3	3	3	0	0	0	0	0	0	0
HH-1Y	0	0	0	0	3	3	6	6	6	6	6
TOTAL SAR PAA	6	6	6	6	6	6	6	6	6	6	6

# Section 6 --- Marine Fixed Wing Aviation Plan

Marine Fixed Wing Aviation Plan	6-2
TACAIR Integration Update	6-3
Marine Attack/Fighter Attack/All Weather Fighter Attack (VMA/VMFA/VMFA(AW)) Plan	6-4
Marine Aerial Refueler / Transport (VMGR) Plan	6-8
Marine Electronic Attack (VMAQ) Plan	6-11
Marine Operational Support Aircraft (OSA) Plan	6-12

### Marine Fixed Wing Aviation Plan

<u>MARINE FIGHTER/ATTACK SQUADRON</u> (VMFA): Support the MAGTF Commander by destroying surface targets and enemy aircraft, day or night under all weather conditions during expeditionary, joint or combined operations.

#### MARINE ALL-WEATHER FIGHTER/ATTACK SQUADRON

(VMFA-AW): Support the MAGTF Commander by providing supporting arms coordination, conducting multi-sensor imagery, and destroying surface targets and enemy aircraft day or night under all weather conditions during expeditionary, joint, or combined operations.

MARINE ATTACK SQUADRON (VMA): Support the MAGTF

Commander by destroying or defeating surface targets and escort friendly aircraft, day or night under all weather conditions during expeditionary, joint or combined operations.

#### MARINE REFUELING TRANSPORT SQUADRON (VMGR):

Support the MAGTF Commander by providing aerial refueling and assault support, day or night under all weather conditions during expeditionary, joint, or combined operations.

#### MARINE ELECTRONIC ATTACK SQUADRON (VMAQ): Support

the MAGTF Commander by conducting airborne electronic warfare, day or night, under all weather conditions during Expeditionary, Joint, or Combined Operations.

#### MARINE UNMANNED AERIAL VEHICLE SQUADRON (VMU):

Conduct reconnaissance, surveillance, target acquisition, indirect fires adjustment, battlefield damage assessment (BDA) and support the rear area security plan during expeditionary operations or joint and combined operations.

<u>OPERATIONAL SUPPORT AIRCRAFT</u> (OSA): Provide time sensitive air transport of high priority passengers and cargo between and within a theater of war.

#### F-18 A-D, AV-8B:

FY07/08 will consist of a temporary reduction in the numbers of active duty TACAIR squadrons from 21 to 19 through the cadre of two active duty squadrons, one VMFA and one VMFA(AW). The purpose of this is to manage the current and projected inventory shortfalls until the strike-fighter inventory allows for their reactivation. At that time, both squadrons will be reactivated bringing our total active duty force back to 21 squadrons.

#### <u>KC-130J</u>:

<u>DEVELOPMENTAL TEST</u>: Complete 15 Sep 03. <u>OPERATIONAL TEST/OPEVAL</u>: OTIIIA/B Complete Apr 04. Suitable/Effective in permissive environment. OTIIIC1 (ASE) Complete Feb 05. Effective in permissive/non-permissive environments.

<u>INITIAL OPERATING CAPABILITY</u>: Achieved during Feb 05 when the first VMGR finished receiving twelve KC-130J aircraft. Since achieving initial operating capability VMGR-252/352 have six aircraft forward deployed in support of Operation Iraqi Freedom. VMGR-352 has received twelve KC-130J aircraft.

#### JSF (STOVL):

<u>DEVELOPMENTAL TEST</u>: Ongoing --- Block I commences 2<sup>nd</sup> Qtr of FY-09. Block II commences 2<sup>nd</sup> Qtr of FY-10. Block III commences 2<sup>nd</sup> Qtr of FY-11.

OPERATIONAL TEST/OPEVAL: Commences 2<sup>nd</sup> Qtr of FY12. INITIAL OPERATING CAPABILITY: Will be achieved during FY-12 when the first squadron receives their complement of aircraft with required support equipment, technical publications, trained maintenance personnel and trained aircrew, to include initial spares with interim repair support in place and is fully combat capable.

### **TACAIR Integration Update**

#### TACAIR INTEGRATION (TAI)

A revised Operational and Training MOA was drafted in August 2005 to update, expand and consolidate the existing MOAs. This draft includes the following changes.

-Implements CBS as the new TAI construct, vice 10/3 -Provides Policy for sourcing of supported COCOM operations and contingency force requirements

-Further addresses implementation of TAI under Fleet Response Plan (FRP) construct

-Incorporates the 2005 CNAF message which outlined VFA predeployment expeditionary training requirements and adds VMFA pre-deployment (CVW) training requirements -Incorporates all previous MOA's

#### F/A-18 SERVICE LIFE MANAGEMENT PROGRAM (SLMP)

The health of our F/A-18 inventory is critical to the success of TAI and the Department of the Navy's TACAIR support to the warfighter. This inventory faces significant service life challenges including wing fatigue, arrested landings, total flight hour and total landings. In June 2004 Commander, Naval Air Forces (CNAF) and DC(A) released a message (COMNAVAIRFOR 011827Z JUN 04) outlining a program to better manage our utilization of our Hornet and Super Hornet service life. This was a first step toward a continuing, comprehensive program to meet our readiness goals while preserving these aircraft until the transition to the F/A-18E/F and F-35 Joint Strike Fighter is completed. It is incumbent that F/A-18 commanders at all levels completely understand, fully support and actively implement the SLMP.

#### CAPABILITIES BASED SCHEDULING (CBS)

A CNO-CMC approved alternative to the original integration plan of a VMFA in all ten USN Carrier Air Wings and three USN squadrons participating in UDP:

-Integration under the 10/3 paradigm had significant negative effects on operations and readiness

-Created a disproportionately low turn-around ratio (TAR) for all UDP units

-CVW ~ 1:3.66

-UDP 1:2

-OPLAN requires PTDO from CVW designated assets (VFA/VMFA)

-Difficult to affect JSF transition

CBS Integrates ALL 56 Navy and Marine Strike/Fighter squadrons within a common scheduling process:

-Globally schedule best unit to fill each requirement -Unconstrained by 10/3 (or any specific numbers) -Units not permanently assigned to CVW or UDP -Japan based units excepted -Look for best, most cost-effective fit for each requirement -Create flexibility to source fighter capability as the strategic

-Create flexibility to source fighter capability as the strate

-Can integrate into Global Force Management system addressing all DoN strike fighter sourcing issues

#### MARINE ATTACK / FIGHTER ATTACK / ALL WEATHER FIGHTER ATTACK (VMA/VMFA/VMFA(AW)) PLAN

		FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
		1234	1234	1234	1234	1234	1234	1234	1234	1234	1 2 3 4
UNIT/LOCATION	PMAA										
MAG-11 NKX											
VMFA-232 (1)	10 FA-18C										
VMFA-314 (1)	12 FA-18C					۱ <u> </u>	۱ <u> </u>	۱ <u> </u>		F V	10XF35B
VMFA-323 (1)	10 FA-18C										
VMFA(AW)-121 (2)	12 FA-18D							F V		<u>10 x F35B</u>	
VMFA(AW)-225 (2)	12 FA-18D								F V	10XF35B	
VMFAT-101	<u>12 FA-</u> 18A/C										
	24 FA-18B/D										
MAG-12 RJOI											
VMFA(AW)-242 (2)	12 FA-18D										
VMFA-212 (3)	12 FA-18C			C	ADRE			PROJE	CTED STA	ND UP	
MAG-13 NYL											
VMA-211	14 AV-8B		' <u> </u>				F V		14 X	F35B	
VMA-214	14 AV-8B								F V	14 X F35E	
VMA-311	14 AV-8B									F V	14 X F35E
VMA-513	14 AV-8B										
MAG-14 NKT											
VMA-223	14 AV-8B		1	۱ <u> </u>		اا	۱ <u> </u>	۱ <u> </u>			
VMA-231	14 AV-8B		۱ <u> </u>					۱ <u> </u>			
VMA-542	14 AV-8B		۱ <u> </u>	۱ <u> </u>		۱ <u> </u>	۱ <u> </u>	۱ <u> </u>			
VMAT-203	12/14 T/AV-8B		۱ <u> </u>	۱ <u> </u>			۱ <u> </u>	۱ <u> </u>			1
MAG-31 NBC											
VMFA-115 (1)	11 FA-18A+		۱ <u> </u>	۱ <u> </u>			۱ <u> </u>	۱ <u> </u>			
VMFA-122 (1)	12 FA-18C		۱ <u> </u>								
VMFA-251 (1)	12 FA-18C		' <u> </u>	۱ <u> </u>			l]	<u>ا</u> ا			·
VMFA-312 (1)	10 FA-18A+		۱ <u> </u>				I				
VMFA(AW)-224 (2)	12 FA-18D						I]				
VMFA(AW)-332 (2)	12 FA-18D		C	ADRE			PR	OJECTEL	STAND	JP	
VMFA(AW)-533 (2)	12 FA-18D										F V
MAG-41 NFW											
VMFA-112	10 FA-18A+		1				I	۱ <u> </u>			
MAG-42 NCQ											
VMFA-142 (3)	10 FA-18A+						CAL	DRE			
MAG-46 NKX											
VMFA-134 (3)	10 FA-18A+						CADRE				

NOTES:

1) ACTUAL PMAA FOR FA-18A+/C VARIES ACCORDING TO CV INTEGRATION SCHEDULES.

2) GRAPH SHOWS REPRESENTATIVE NUMBER OF SQUADRONS, COMPONENT AND TYPE AIRCRAFT FOR PLANNING PURPOSES.

3) CADRE FY-07/08.

# Fixed Wing Legacy Fighter Attack Inventory Levels



#### MARINE ATTACK/FIGHTER ATTACK/ALL WEATHER FIGHTER ATTACK (VMA/VMFA/VMFA(AW)) PLAN

#### F = JSF TRANSITION BEGINS

A = FA-18A + TRANSITION BEGINS

**GENERAL NOTES:** 

C = FA-18C TRANSITION BEGINS

R = PMAA REDUCTION

T = TACAIR INTEGRATION

V = TRANSITION COMPLETE

FY-08 FY07 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 TOTAL SQUADRONS AC FA-18A+/C 8 7 7 6 RC FA-18A+/C 1 AC FA-18D 5 5 5 5 3 3 5 4 AC AV-8B 7 7 7 6 6 5 4 AC F-35B 0 0 2 0 0 0 1 4 6 RC F-35B 0 0 0 0 0 0 0 0 0 FA-18 FRS 1 1 1 1 1 AV8B FRS 1 1 F-35B JITC 0 0 0 1 1 1 1 1 FY07 FY-08 FY09 FY10 FY11 FY12 FY13 FY14 FY15 FY16 

PAA PLAN										
AC/RC PMAA										
FA-18A+/C	109	87	87	87	87	87	87	87	75	75
FA-18D	60	60	60	60	60	60	48	36	36	24
AV-8B	98	98	98	98	98	84	84	70	56	56
F-35B	0	0	0	0	0	14	24	48	72	82
TOTAL AC/RC TACTICAL	267	245	245	245	245	245	243	241	239	237
FRS PTAA										
FA-18A/C	12	12	12	12	12	10	10	10	10	10
FA-18B/D	24	24	24	24	24	20	20	20	20	20
AV-8B	12	12	12	12	10	10	8	8	8	8
TAV-8B	14	14	14	14	12	12	10	10	10	10
F-35B	0	0	0	6	8	8	15	20	20	20
TOTAL FRS PTAA	62	62	62	68	66	60	63	68	68	68
TOTAL PAA	329	307	307	313	311	305	306	309	307	305

AWAITING SENIOR DoD APPROVAL OF JSF PROGRAM. ~ JSF JOINT INTEGRATED TRAINING CENTER (ITC) CONCEPT UNDER DEVELOPMENT.

~ TRANSITION PLAN AS DEPICTED IS NOTIONAL FOR BOTH LOCATION & UNITS. JSF IOC & TRANSITION PLAN

# JSF Transition Task Force Cross Functional Team (CFT) Working Issues

### CFT 1 (DOCTRINE AND TRAINING)

- Instructional System Design (on-going)
  - Training Task List
  - Objective Media Analysis Review
  - Media Selection and Syllabus Report
- JSF Training System Ready for Training (Sep 09)
  - Syllabus
  - Courseware
  - Simulators

### CFT 2 (ORGANIZATION AND PERSONNEL)

- DT/ OT Staff @ Edwards AFB (FY 07)
- F-35B Squadron T/O complete
- USMC Instructors arrive at ITC Site (FY 09)
- STOVL IOC (FY 12)
- 2015 MEU ACE Composition
  - Aviation inputs complete to MCDCC

#### CFT 3 (MATERIAL AND FACILITIES)

- ITC Site Selection, Eglin, AFB completed (May 05)
- BRAC Congressional Approval (Dec 05)
- F-35B STOVL JSF First Flight (3<sup>rd</sup> Qtr FY 08)
- Initial Training Center Ready for Training (FY 10)
- NEPA West Coast In Processs (FY08)
- EIS Eglin In Work (FY 07)
- EIS East Coast Planned (CY11)
- EIS WestPac Planned (CY14)

#### F-35B CHARTER: 14 AUGUST 2003

#### **TTF DATES**

1<sup>st</sup> TTF Proposed 3<sup>rd</sup> Qtr FY 07
#### MARINE AERIAL REFUELER/TRANSPORT (VMGR) PLAN

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
PAA PLAN											
AC/RC PMAA											
KC-130F/R	12	7	0	0	0	0	0	0	0	0	0
KC-130J	24	31	35	37	39	41	43	45	45	45	45
KC-130T	24	24	24	24	24	24	24	24	24	24	24
TOTAL AC/RC PMAA	60	62	59	61	63	65	67	69	69	69	69
TOTAL PAA	61	63	60	62	64	66	68	70	70	70	70

NOTE: PMAA FOR AC VMGR SQUADRONS IS TENTATIVELY PLANNED TO INCREASE TO 15 (+3). PRECISE TIMELINE IS TBD BASED ON PROCURMENT TIMELINE OF THE KC-130J PROGRAM OF RECORD (POR). POR IS 51 TOTAL KC-130J AND 28 KC-130T AIRCRAFT

#### MARINE AERIAL REFUELER/TRANSPORT (VMGR) PLAN

		FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
		1234	1234	1234	1234	1 2 3 4	1234	1234	1234	1234	1234	1 2 3 4
UNIT/LOCATION	PAA											
MAG-11 MIR												
VMGR-352	12 KC-130J											
MAG-14 CPT												
VMGR-252	12 KC-130J											
MAG-36 FUT												
VMGR-152	12 KC-130F/R					STRIKE A	S KC-130J	'S ARRIVE				
VMGR-152	KC-130J		J		V							
MAG-41 FTW												
VMGR-234	12 KC-130T			V		11			V			
MAG-49 WLG												
VMGR-452 STW	12 KC-130T	l		V							V	

J = KC-130J TRANSITION BEGINS

GENERAL NOTES:

V = TRANSITION COMPLETE - TRANSITION PLAN AS DEPICTED IS DC(A) APPROVED BY LOCATION AND UNIT.

I = BLOCK I AMP TRANSITION BEGINS (CNS/ATM MANDATES)

II = BLOCK II AMP TRANSITION BEGINS (Glass cockpit upgrade)

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
TOTAL SQUADRONS											
AC KC-130F/R	1-12	1-12	0-12	0-12	0-12	0-12	0-12	0-12	0-12	0-12	0-12
AC KC-130J	2-12	2-12	3-12	3-12	3-13	3-13	3-14	3-15	3-15	3-15	3-15
RC KC-130T	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12	2-12

<u>NOTE</u>: Program of Record is 51 Active Component KC-130J aircraft and 28 Reserve Component KC-130T aircraft. Requirement is for 3 AC squadrons of 15 aircraft (PMAA), 2 RC squadrons of 12 aircraft (PMAA) plus one OT KC-130J aircraft at VX-20, five KC-130J pipeline/attrition aircraft and 4 KC-130T pipeline/attrition aircraft.

## KC-130J Transition Task Force Cross Functional Team (CFT) Working Issues

#### CFT 1 (DOCTRINE AND TRAINING)

#### Completed

- J Pilot training unit (Sim Only) established at CHPT 6 Jun 06
- KC-130 maintenance training established at CHPT 1 Oct 06
- KC-130F/R training established at VMGR-152 1 Oct 06
- KC-130 FRS deactivation 14 Sep 06

#### • On-going

- POA&M for converting maintenance training from legacy to J acft in FY10 & moving to Little Rock AFB (LRAFB)
- POA&M for KC-130T aircrew & maintenance training
- KC-130J pilot ITRO Resource Requirements staffing
- KC-130J maintenance ITRO Resource Requirements staffing

#### • Long Term

- 1st MAW KC-130J conversion training (3rd QTR FY07)
- Move KC-130J Pilot training to LR AFB (FY09)
- Move maintenance training MARUNIT from CHPT to LR AFB (FY10)

### CFT 3 (MATERIAL AND FACILITIES)

#### Completed

- Cherry Point KC-130J Sim operational 6 Jul 06
- Miramar KC-130J Sim operational Mar 07
- 1st MAW KC-130J Sim facility on contract.
- CNATT MARUNIT maintenance training aircraft operational 10 Aug 06

#### • On-going

- 1st MAW KC-130J Sim facility EST completion Oct 07
- Futenma KC-130J Sim contract in work EST RFT Aug 08
- 1st MAW KC-130J phased transition in progress

#### Long Term

- 1st MAW KC-130J Sim & enclosure delivery at Futenma
- VMGR-152 relocation to Iwakuni
- KC-130J Sim relocation to Iwakuni
- KC-130J support facilities at Iwakuni

#### CFT 2 (ORGANIZATION AND PERSONNEL)

#### Completed

- MCBUL 5400 FRS deactivation MSG DTG 031944Z APR 06
- KC-130J Model Manager Det established (TOCR complete)
- KC-130J Aircrew Training Unit (J-ATU) (TOCR complete)
- J-ATU Command reporting structure established
- 1ST & 4TH MAW Det structure established (TOCR complete)
- On-going
  - Move 1st MAW KC-130J T/O changeover from FY10 to FY09 TFSD
  - Identify KC-130J qualified aircrew and maintenance for PCS to 1ST MAW – M&RA
  - Reallocation of former VMGRT-253 manpower M&RA
  - Increase Enlisted TSO (Navigator) boat spaces to ensure VMGR-152, 234 and 452 staffing during KC-130J and KC-130T AMP transition

#### Long Term

 Fleet redistribution of qualified KC-130J aircrew and maintainers throughout the active component squadrons – M&RA

#### KC-130J CHARTER: 14 Aug 03 TTF DATES (LAST): 8-9 May 07 (NEXT): 28-29 Nov 07

#### **TTF FY 07 DECISION POINTS**

- Disposition of Buno 166473

   NavAir Test Article
- KC-130J Redistribution
  - For MarFor Staff concurrence
- Pilot Training JMATS or Dual Site ATU with ATS Oversight
  - Building business case analysis of JMATS vs ATU East/West

#### MARINE ELECTRONIC ATTACK (VMAQ) PLAN

#### CURRENT FORCE: 4 AC SQDN X 5 EA-6B

#### FORCE GOAL: 4 AC SQDN X 5 EA-6B/AEA

		FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1234	1 2 3 4	1234	1234	1234	1 2 3 4
UNIT/LOCATION	PMAA										
MAG-14 NKT											
VMAQ-1	5 EA-6B	5	5	5	5	5	5	5	5	5	5
VMAQ-2	5 EA-6B	5	5	5	5	5	5	5	5	5	5
VMAQ-3	5 EA-6B	5	5	5	5	5	5	5	5	5	5
VMAQ-4	5 EA-6B	5	5	5	5	5	5	5	5	5	5

VMAQ squadron stand down begins FY 16 and completes FY 20.

Based upon the USN decision to divest itself of the EA-6B FRS mission, the plan to conduct USMC EA-6B aircrew and maintenance training is under review

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
TOTAL SQUADRONS/UNIT PMAA										
AC EA-6B	4	4	4	4	4	4	4	4	4	4
AC AEA	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0	0-0
	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
PAA PLAN										
AC PMAA										
EA-6B	20	20	20	20	20	20	20	20	20	20
	0	0	0	0	0	0	0	0	0	0
TOTAL AC PMAA	20	20	20	20	20	20	20	20	20	20

#### MARINE OPERATIONAL SUPPORT AIRLIFT PLAN

CURRENT FORCE: 12 UC-35C/D	FORCE GOAL: 12 UC-35C/D
11 UC-12B/F	11 UC-12B/F
1 C-20G	1 C-20G
2 C-9B	2 C-40 (est 2018)

		FY07	FY08	FY09	FY-10	FY11	FY12	FY13	FY14	FY15	FY16
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4
UNIT/LOCATION	PAA										
MCAS NKT											
VMR-1	2 C-9B	2 X C-9B									
	2 UC-35D	2 X UC-35D									
MCAS NCA											
VMR DET NCA	2 UC-12B	2 X UC-12B									
MCAS NBC											
VMR DET NBC	1 UC-12B	1 X UC-12B									
MCAS NKX											
VMR DET NKX	2 UC-35D	2 X UC-35D									
	1 UC-12F	1 X UC-12F		-					-		
MCAS NYL											
VMR DET NYL	2 UC-12B	2 X UC-12B									
MCAF PHNG											
VMR DET PHNG	1 C-20G	1 X C-20G	1		1	-	1	1		1	1
MCAS ROTM											
VMR DET ROTM	3 UC-35D	3 X UC-35D									
	1 UC-12F	1 X UC-12F									
MCAS RJOI											
RJOI	2 UC-12F	2 X UC-12F									
NAF NSF	0.110.050										
VMR DET NSF	3 UC-35D	3 X UC-35D									
NAC NDC	1 UC-12B	T X UC-12B									
	2 110 250	2 V 110 250									
VIVIR DET NBG	2 UC-35C										
	1 UC-12B	T A UC-12B									

C4 = C-40 TRANSITION BEGINS

R = REDUCTIONS

P = PLUS-UP

V = TRANSITION COMPLETE

	<b>FY07</b>	FY08	FY-09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
AIRCRAFT										
UC-12F/B	11	11	11	11	11	11	11	11	11	11
UC-35C/D	12	12	12	12	12	12	12	12	12	12
C-20G	1	1	1	1	1	1	1	1	1	1
C-9B	2	2	2	2	2	2	2	2	2	2
C-40A	0	0	0	0	0	0	0	0	0	0
TOTAL	26	26	26	26	26	26	26	26	26	26

## Section 7 ---- Marine Rotary Wing/Tiltrotor ASE Plan

Marine Marine Rotary Wing/Tiltrotor ASE Plan

USMC FoS UAS Schedule

7-2

7-3

### Marine Rotary Wing/Tiltrotor ASE Plan

#### Rotary Wing/Tiltrotor ASE:

GWOT Assault Support aircraft are 100% equipped with upgraded Missile Warning Systems, Decoy Dispensers and RF Warning Systems

- CONUS aircraft are 87% complete with priority given to deploying units
  - Ongoing efforts to complete MWS sensors upgrade to latest A(V)2 configuration (Dynamic Blanking Fix) underway
  - Estimate completion Fall 07

#### •Advanced ASE suite

- Priority given to most vulnerable aircraft
  - CH-5E and CH-46E: Improve MWS, CMDS and install DIRCM
  - Improvements to begin Mar 08
- Expedite all other Assault Support aircraft
  - H-1, V-22 and C-130: Improve MWS, CMDS and develop light weight DIRCM
  - Improvements to begin Jun 08

<u>NEAR TERM</u>: Present to 08 <u>MID TERM</u>: 08-10 <u>LONG TERM</u>: 10-13

#### MV-22:

<u>TTP</u>: Update for transition flight threat <u>NEAR TERM</u>: MWS software drop OFP 22.4, Low IR paint <u>MID TERM</u>: Upgrade MWS to B(V)2, FF ALE development & Installation. Assault Support DIRCM lead. Develop and install Advanced ASE suite controller.

LONG TERM: Install 2 color IRMWS and DIRCM Jamhead

#### H-1:

<u>TTP</u>: Reevaluate for new systems <u>NEAR TERM</u>: MWS software drop 22.4 <u>MID TERM</u>: Upgrade MWS to B(V) 2. Develop and install Advanced ASE suite controller. <u>LONG TERM</u>: Develop and install 2 color IRMWS and DIRCM. Develop visually degraded environment solution.

#### CH-46:

<u>TTP</u>: Reevaluate for new systems

<u>NEAR TERM</u>: MWS software drop 22.4, FF Flares development underway. FF Buckets installs to begin late 07/early 08. <u>MID TERM</u>: Upgrade MWS to B(V) 2, FF ALE development & Install. Potential install of AAQ-24 as DIRCM Jamhead. Develop and install advanced ASE suite controller.

<u>LONG TERM</u>: Install 2 color IRMWS and DIRCM Jamhead Develop visually degraded environment solution.

#### CH-53:

TTP: Reevaluate for new systems

<u>NEAR TERM</u>: MWS software drop 22.4, FF Flares development underway. FF Buckets installs to begin late 07/early 08. <u>MID TERM</u>: Upgrade MWS to B(V) 2, FF ALE development & Install. Potential install of AAQ-24 as DIRCM Jamhead. Develop and install Advanced ASE suite controller.

<u>LONG TERM</u>: Install 2 color IRMWS and DIRCM Jamhead. Develop visually degraded environment solution.

#### C-130:

<u>TTP</u>: Reevaluate for new systems <u>NEAR TERM</u>: MWS software drop 22.4, <u>MID TERM</u>: Upgrade MWS to B(V) 2, Potential install of AAQ-24 as DIRCM Jamhead LONG TERM: Install 2 color IRMWS and DIRCM Jamhead.

#### Flares:

TTP: Reevaluate techniques for advanced threats

<u>NEAR TERM</u>: MJU-57 now available for (C-130), Testing MJU-50/206 for near tem fielding.

<u>MID TERM</u>: Evaluating Foreign Multi-Spectral device for USMC use. <u>LONG TERM</u>: Develop techniques for using flares and DIRCM for imaging threats.



## Section 8 --- Marine Unmanned Aircraft System (UAS) Plan

Marine Unmanned Aircraft System (UAS) Plan	8-2
USMC FoS UAS Schedule	8-3
UAS Shadow Transition Plan	8-4

### Marine Unmanned Aircraft System Plan

The demand for ISR support continues to grow, and clearly highlights the increased need for UAS in the Marine Corps. To fulfill this need, the VMU will begin an organizational transformation that will lead to a flexible, scaleable, detachment-based squadron. This reorganization will be based around the Army One Ground Control Station (GCS), envisioned as the common GCS for all tiers of Marine Corps UAS Family of Systems (FoS) and all current Army UAS.

The Marine Corps' UAS concept of employment is divided into three tiers, each coinciding with the level of unit they support. Marine Corps Combat Development Command (MCCDC) has completed the Marine Corps UAS Family of Systems concept of operations and is conducting the USMC overarching capabilities study which will refine the requirements for the USMC Family of Systems UAS.

The Marine Corps' Tier I UAS, Dragon Eye, is being flown at the Battalion level and below with great success in OIF. The Dragon Eye UAS achieved Initial Operational Capability in June 2004. The Marine Corps is currently transitioning from Dragon Eye to the Joint Small UAS, Raven-B, which has been selected by the Army and SOCOM. There are currently 270 Dragon Eye in the inventory with plans to procure 460 Raven-B systems.

The Marine Division, Regimental, Battalion and Marine Expeditionary Unit (MEU) commanders will be supported by the Tier II UAS. The Marine Corps employs two Scan Eagle UAS systems under a fee-for-service agreement to fill this identified capability gap. The current sole-source contract is being re-competed with a projected contract award in March 07. The Joint sponsored Tier II UAS program Initial Capabilities Document was JROC approved in Dec 06. The program of record has planned IOC in 2010.

The Marine Corps' Tier III UAS serves the JTF/MAGTF commander. Marine Requirements Oversight Council (MROC) Decision Memorandum 10-2007 endorsed the plan to transition from the RQ-2B Pioneer to the US Army RQ-7B Shadow as the Interim Tier III UAS. The Marine Corps plans to transition to the Shadow system during the fourth quarter of FY07 to allow a first quarter FY08 USMC Shadow deployment to sustain current OIF operations. Structure changes in the VMU community will include the stand up of one additional AC VMU and one RC VMU. This will greatly increase UAS capacity and op-tempo flexibility.

Vertical Unmanned Aircraft System (VUAS): As the Tier III replacement, VUAS will provide responsive, real-time reconnaissance, surveillance, intelligence, electronic attack, targeting and weapons employment capability that is organic to the Marine Air Ground Task Force and Joint Task Force Commanders. It will have the key attributes necessary to support EMW. These include vertical takeoff and landing from all air capable ships/austere land bases, the speed to be responsive and tactically agile, and the survivability required to effectively operate in denied access environments. The VUAS Initial Capabilities Document was approved in December of 2005. An Analysis of Alternatives is underway to examine existing UA systems, their costs, and ability to meet the Marine Corps requirements. The AoA will inform POM-10 programmatic decisions. VUAS has a planned IOC of 2015.

# USMC FoS UAS Schedule



#### UNMANNED AIRCRAFT SYSTEM (UAS) SHADOW TRANSITION PLAN

CURRENT FORCE: 2 AC SQDN x 1 RQ-2 SYSTEM

UAS GOAL3 AC SQDN x 3 RQ-7 SHADOW 200 SYSTEMS1 RC SQDN X 3 RQ-7 SHADOW 200 SYSYEMS

SHADOW TRANSITION	SCHEDULE	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
		1 2 3 4	1 2 3 4	1234	1 2 3 4	1234	1 2 3 4	1234	1234	1234	1234	1 2 3 4
UNIT/LOCATION												
29 PALMS, CA												
VMU-1	RQ-2B SYSTEMS											
	SHADOW 200	<mark>- S</mark> *		V								
CHERRY PT, NC												
VMU-2	RQ-2B SYSTEMS											
	SHADOW 200		S*	V								
29 PALMS, CA												
VMU-3	SHADOW 200											
(TBD)												
VMU-4	SHADOW 200					**						
UAS INVENTORY	PAA											
PIONEER	SYSTEMS	2										
	AIR VEHICLES	10										
SHADOW	SYSTEMS	2	2	9	12	12	12	12	12	12	12	12
	AIR VEHICLES	8	8	36	48	48	48	48	48	48	48	48
VUAS	SYSTEMS									TBD	TBD	TBD
	AIR VEHICLES									TBD	TBD	TBD

S = START SHADOW TRANSITION

V = TRANSITION COMPLETE

\* VMU deploys w/ SHADOW

\*\* Based upon Contract Logistics Support manpower savings

RQ-2B PIONEER OPS	
RQ-7B TRANSITION	
RQ-7B SHADOW OPS	
VUAS TRANSITION	
NEW SQUADRON	

# Section 9 --- Weapons and Munitions Plan

Weapons & Munitions Plan

9-2

#### Joint Air to Ground Missile (JAGM): The JAGM, previously

called the JCM, was designed to replace the aging inventory of Hellfire, TOW and Maverick missile systems with a Precision Guided Munition (PGM), with enhanced range, common to multiservice, rotary and fixed wing aircraft, Unmanned Aerial Vehicles, and USA (Lead Service) Future Combat Systems ground vehicles. The weapon will utilize a Tri-Mode Seeker (Semi-Active Laser, Millimeter Wave Radar, and Imaging Infrared) in order to defeat hardened and non-armored, stationary and moving targets. The JCM program was initially cancelled in December 2004, as a result of PBD-753. JAGM is now replacing the JCM to meet the USMC requirement for a FW/RW/UAS all weather, Forward Firing, low collateral damage missile. Expected IOC for the JAGM is FY14.

<u>AGM-114 Hellfire:</u> A series of HELLFIRE Product Improvements (PIPs), are interim measures to address capability gaps that JAGM will meet when fielded. The AGM-114M HELLFIRE was upgraded to a thermobaric version, AGM-114N which retains the current "M" fragmentation capability, and enhances lethality across the non-traditional target set with improved blast/impulse. The AGM-114M is no longer being produced. Trajectory shaping software to provide a flatter trajectory for the AGM-114N has been approved. This will provide for a more perpendicular impact and better penetration on specific target sets, expected to IOC summer FY07. The AGM-114N is in theater in support of OIF and the Global War on Terrorism (GWOT).

#### Advanced Precision Kill Weapon System (APKWS):

Originally an Army program with DoN interest, APKWS was terminated in the Army's POM08 budget. The USMC is in the process of establishing APKWS as a USMC Program of Record. APKWS will provide an R/W economic solution to fill the gap between costly anti-armor precision-guided munitions and the less costly unguided general-purpose rockets. It provides an enhancement to the currently fielded 2.75-inch aircraft rocket system. APKWS involves placing a laser-guided seeker onto existing rocket motors and warheads providing an excellent low cost, mid-range weapon well suited for the MOUT environment. APKWS provides increased stowed kills over the more expensive and limited inventory of guided missiles, while it's small warhead size is conducive to minimizing collateral damage.

GAU-21: Currently fielded on the CH-53E, and being fielded on the CH-46. This weapon provides an improved .50 Caliber defensive crew served weapon system, common to all platforms, to replace the aging XM-218 and GAU-16 machine guns in the inventory. Legacy weapons are up to 50 years old. with declining safety, reliability and maintainability, which put aircrew at risk. The GAU 21 is enhancing the defensive fire capability for the CH-53D/E/K, CH-46E, and the UH-1N/Y platforms with improved safety, reliability, lethality, and rate of fire. The GAU-21 is providing increased aircraft and aircrew survivability and safety throughout the spectrum of assault support missions. IOC for CH-53E Ramp Mounted Weapons System (RMWS) was achieved 4Q FY04. CH-53 left & right door gun systems completed testing and are expected to be fielded in late FY07. IOC for CH-46 left & right door gun systems is scheduled for late FY07. Fielding for the UH-1Y is scheduled for FY09.

Small Diameter Bomb II (SDBII): Small Diameter Bomb (SDB) Increment II is the second increment of a Miniature Munitions (MM) weapons system capability. The first increment, SDB Increment I All-Up Round (AUR) is a 250 lb class, precision-guided (GPS only), adverse weather munition with an associated MM carriage system that will provide increased stowed kills per sortie. SDB Increment II will provide the USMC Joint Strike Fighter (JSF) with a standoff attack capability outside of point defenses against fixed and stationary targets. SDB Increment II will leverage SDB I to the maximum extent possible. SDB Increment II will provide additional capability for the F-35 as an effective, day/night, adverse weather munition with a greater standoff capability plus the capability to attack a range of stationary and mobile targets across the future combat arena and reduce the risk of collateral damage.

**Dual Mode Laser Guided Bomb (DMLGB)**: Provide the immediate capability of a dual mode weapon . A new capability is urgently needed to provide flexibility and enhanced time sensitive targeting for USMC fixed wing aircraft. This weapon provides improved sortie effectiveness and operational responsiveness at a reduced cost of operations. GPS/INS and 1760 communication capability are being added to the current LGB. The GPS/INS will greatly enhance the legacy LGB performance. The DMLGB will be fielded in FY 07.

**Direct Attack Moving Target Capability (DAMTC):** DAMTC will be the follow on weapon system that will upgrade the existing F/W JDAM and GBU series of bombs. It will be a precession guided GPS/INS and SAL seeker capable weapon designed to attrite the moving target threat. This weapon system will provide the F/W warfighter with an enhanced Dual mode capable bomb. Expecting IOC in FY 09.

Laser Guided Zuni (LGZ): The Laser Guided Zuni is a proposed weapons program that will enhance the current inventory of 5.0" Zuni rockets with a Laser capability. Much like the APKWS this will involve placing a laser-guided seeker onto existing Zuni rocket motors and warheads providing an excellent low cost, mid-range weapon well suited for the MOUT environment. By utilizing the existing stock pile of Zuni motors, warheads and the LAU-10 launcher, the F/W and R/W warfighter will be able to capitalize on a low cost, increased Ph, low collateral damage weapon system. This will allow increase kills per stow, and provide a better weapons to target match against soft/moving target sets, preserving the high cost F/W and R/W PGMs for hard target sets. If appropriate funding is secured this weapon system could be fielded by FY 09.

# Section 10 --- Aviation Training Systems

Marine Aviation Aircrew Training Systems (ATS) Plan	10-2
USMC Aircrew Training Systems Network Roadmap	10-5
V-22 Simulator Roadmap	10-6
CH-46 Simulator Roadmap	10-7
CH-53 D/E/K Simulator Roadmap	10-8
AH-1 Simulator Roadmap	10-9
UH-1 Simulator Roadmap	10-10
VH-71 Training System Roadmap	10-11
AV/8 Simulator Roadmap	10-12
F/A-18 Simulator Roadmap	10-13
EA-6 Simulator Roadmap	10-14
KC-130 Simulator Roadmap	10-15

### Aviation Training Systems (ATS)

In today's operational environment, Marine Aviation is required to achieve and sustain the highest levels of combat readiness in support of the immediate and future demands of warfare. At the same time, the cost of continuous operations and the acquisition programs for aviation modernization must be satisfied. Our present methods of training (for airframes other than MV-22 and KC-130J) lack an integrated, standardized approach to capitalize on efficiencies that can be realized from a "Systems Approach to Training (SAT)" and an organizational structure capable of supporting the system through efficient allocation of existing resources. Fiscal reality, high tempo operations, and the undue burden on our Marines. do not allow us to continue in this manner. We must develop and implement training systems that institutionalize processes that support our missions, provide ontime delivery of tactically relevant aviation training while reducing our total ownership cost.

Marine Aviation strives to take systems type training out of aircraft to free up operational assets to fly and fight. High fidelity systems will provide a consistent level load of standardized training from Fleet Replacement Squadrons to fleet aircrew. The net result will maximize return on investment to provide combat ready aircrew and units for the MAGTF.

#### Systems Approach to Training

The Marine Corps adopted SAT as the official tool to assist schools (and units) in developing instruction that meets the Marine Corps' goal. A comprehensive, yet flexible system, SAT assists users in identifying behaviors performed on the job; in selecting those critical behaviors for which instruction is necessary; in developing and conducting the best objective-based instruction to teach those behaviors in terms of effectiveness, efficiency, and economy; in evaluating not only student performance of the objectives, but also the ability of the course to meet the stated objectives; and finally in revising courses that fail to meet those objectives. Because SAT requires systematic collection and careful analysis of data, it fosters objectively based decisions and reduces the likelihood of subjectivity.



An organizational system, which will be responsible for supporting the SAT process for Marine Aviation training is Aviation Training Systems. ATS is the organization of training systems under one single command with training sites at each Marine Corps Air Station/Facility, called Marine Aviation Training Systems Squadron (MATSS), working closely with the fleet units to meet daily operational needs. Training systems under ATS will be managed similarly to the way aircraft are managed in a squadron. The mission of ATS is to develop a completely integrated training system across all of Marine Aviation that links training cost with readiness, in order to provide the MAGTF Commander with combat ready units.. Marine Aviation, through ATS, is pursuing development of fully integrated training systems for both transformational and legacy aircraft to greatly enhance operational readiness, improve safety through greater standardization, and significantly reduce the life cycle cost of maintaining and sustaining their aircraft. The primary objective is to provide warfighter focused, tactically relevant training and an appropriate management structure for improved training system efficiency. This effort is far more than just increased use of flight simulators.

ATS development is being accomplished via an Integration Group comprised of appropriate fleet, requirements, acquisition, and industry personnel. The intimate knowledge developed through participation throughout the process establishes a common expectation among user, acquisition, support and industry personnel and affords all participants an opportunity to identify challenges and collectively work to achieve optimal solutions as early as possible. The ATS IG's main focus throughout the process is the training requirements of the warfighter, beginning with curriculum and training continuum development, identification and acquisition of the required training devices, and the proposed organizational structure to maintain currency, support and manage the training.

The organizational structure will consolidate aviationtraining structure but allow MAW commanders operational control of the ATS. The ATS will encompass Aircrew. Maintenance. Command and Control, and Aviation Ground Support requirements and training. It will be one of the primary tools to achieve aviation-training requirements across the spectrum of Training and Readiness (T&R) events. The 100-level has been targeted as a proof of concept. The greater value resides in the upper level training to include ACE, MAGTF, future joint training to fully exploit the networking and exercise control capability of the ATS. Additional training to develop flight leadership and critical decision-making skills, or tailored training to prepare individuals or units for pending deployments, can easily be supported by ATS. ATS will provide the mechanism to provide Marine Aviation with standardization and evaluation of flight leadership gualifications as well as NATOPS and Instrument checks. To the greatest extent possible, common training (such as crew resource management, instrument ground school, mission planning systems, instructor qualification, back in the saddle programs, etc.) will be offloaded to the MATSS sites to reduce the training burden on the Marine Air Groups and squadrons. The ATS structure also provides a natural forum for the fleet to vet their issues, community specific or common, via the chain of command to the appropriate agencies. Overall, the ATS will significantly enhance the operational commander's situational awareness of the training and readiness status and issues of interest pertaining to the command.

MATSS New River is the designated prototype for development of the ATS concept. The guidance is to pursue only mature technologies thus avoiding the increased cost and operational risk associated with development efforts. By conducting such evaluations in the context of ATS, Marine Aviation manages any evaluation and subsequent migration over the entire enterprise and not via disjointed and costly stove-piped pockets that only satisfy individual community needs. The development process will logically impact regulations governing training (i.e. T&R Program Manual) and possibly other elements of DOTMLPF. Recommended changes will be staffed appropriately. Out of fiscal necessity our axis of advance will continue to be toward common training systems/solutions.

The next phase of the ATSP will begin during 4QFY-07 with the establishment of MATSS at MCAS Beaufort, Cherry Point, Camp Pendleton, Miramar, and Iwakuni. Current POM initiatives have been refined to support incremental implementation over the future years defense plan (FYDP). Successful implementation of this concept will ensure Marine Aviation achieves our goal: providing warfighter focused, tactically relevant training in a timely manner at affordable cost. Applying this process will result in comprehensive curricula to shape our T&R program and increase readiness through more efficient use of our aircraft and training systems. When fully implemented, ATS's increased visibility and ability to leverage common solutions across the various platforms will result in significant cost savings freeing funding for other requirements to enhance training.

#### Networked Training

Network training implementation began with the execution of the Marine Corps Aviation Simulation Master Plan (MCASMP), MCASMP, as described in the Marine Air Campaign Plan and later Aviation Plan, required the development of training systems which incorporated the: Tactical Environment Network (TEN), Marines Corps Common Visual Database (MCCVDb), and the use of common hardware and software to the greatest extent possible for all newly procured training systems and upgrades to existing training systems. The goals of MCASMP are to have two network training devices for each T/M/S on both the east and west coast and one network training device for each T/M/S in WESTPAC; provide a common network training environment (electronic (TEN) and visual(MCCVDb)) in order to ensure a "fair" fight training experience for all network participants; and reduce overall procurement and sustainment training costs by procuring simulators with common hardware and software systems in order to avoid the cost of developing new systems. ATS will carry forward and expand the network training capabilities achieved under MCASMP. MATSS sites will incorporate "Command Post" network hubs, which will be linked to other MATSS sites, MEF simulation centers, and to the Joint National Training Capability through nationwide network infrastructure. These Command Posts will be used to develop, plan, rehearse, execute and review scenario-based network training sessions for air-to-air (ACE), air-to-ground (MAGTF), and Joint exercise events.

#### **Training Transformation**

Through the implementation of SAT, the continued procurement of MCASMP compliant training systems and the standup of the ATS, Marine Corps Aviation will be well positioned to achieve a level of training which will effectively and efficiently raise the level of warfighter readiness and capability while reducing the burden of training on precious aviation resources.

#### **ATS Goals**

1. Provide Marine Aviation with a current, responsive, and relevant training system for Aircrew, Maintenance and Command and Control.

2. Develop standardization and evaluation of Flight Leadership qualifications (Section Leader; Division Leader; Flight Leader; Mission Commander; and Air Mission Commander) and NATOPS/Instrument Checks.

3. Address Aviation Safety issues through SAT derived curriculum and improved use of CRM principals.

4. Increase overall aviation readiness through increased use of simulation based on SAT derived curriculum.

5. Provide single voice for USMC Aviation Training issues.









# V-22 Aircrew Training Systems Roadmap

				1							
		FY07	FY08	FY09	FY10	FY11	FY12	FY13 FY14	FY15	FY16	FY17
		1 2 3 4	1234	1234	1234	123	4 1 2 3 4	1 2 3 4 1 2 3 4	1234	1234	1 2 3 4
Full	Flight Simulators										
	NEW RIVER										
FFS	#1		Blk B		Rehos	t/Project	tion Upgrad	le/Control Loader			
FFS	#2		Blk B			Reho	st/Projectio	on Upgrade/Contro	Loader		
FFS	#3		Blk B			Reho	st/Projectio	on Upgrade/Contro	Loader		
FFS	#4			BI	k B						
		MILCON,	High Bay a	addition to	the ATS E	Building a	t New River	for FFS #4			
Fligh	t Training Devices										
	NEW RIVER										
FTD	#1	Blk E	3				Rehos	t/Projection Upgrad	de/Control	Loader	
FTD	#2	BI	kВ			Blk C					
1	NEST COAST										
FTD	#3			Blk B							
FTD	#4			Blk B							
FTD	#5				Blk B						
FTD	#6				Blk B						
	WESTPAC										
FTD	#7					Blk B					
FTD	#8					Blk B					
	K-BAY										
FTD	#9						Blk B				
FTD	#11						Blk B				
	4TH MAW										
FTD	#12							Blk C			
FTD	#13							Blk C			
FTD	#14							Blk C			
	QUANTICO										
FTD	#14	System A	Active						Blk C		
		0	/ .						D		
		System I	nactive	(MOD/P	rocurem	nent)		NON-MCASMP	Device		
		Suctor I	م ام میں اور ا	. A							10-6
		System (	JULTINGE	a				INASINIP DEVICE	•		



MCASMP COMPLIANT DEVICE NON-MCASMP COMPLIANT/NOT NETWORKED



## CH-53D/E/K Aircrew Training Systems Roadmap

	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17
	1234	1234	1 2 3 4	1 2 3 4	1234	1 2 3 4	1 2 3 4	1 2 3 4 1	234	1 2 3 4	1 2 3 4
NEW RIVER (FRS)											
	TSC II Awa	rd July 06, \$4	.5M with Opti	on for 2nd Tr	nr mod in Mira	mar					
CH-53E WST (2F174-1)	REH	<mark>OS</mark> T/VISU/	AL MOD		A Contraction			TECH RE	FRESH		
CH-53E APT (2F190-1)		REHOS	T/VISUAL					TÉC	CH REFRE	SH	
			Funded optio	n in March 06		CH-53K N	EW BUILD				
CH-35K FTD (#1)			to Miramar A	PT Kt to mod	CH-53K	INTEGRA	TED TEST	PERIOD C	PEVAL		
			New River AF	PT to Miramar					IOC		
CH-53K ETD (#2)			configuration				CH-53K N				
MIDAMAD											
MIRAMAR	TSC II opti	on on WST									
	awarded Ju	uly 06 \$4.5M									
CH-53E WST (2F174-2)		REH	OST/VISU/	AL MOD				TEC	CH REFRE	SH	
CH-53E APT (2F190-2)	NEW BUY		Z					TECH RE	FRESH		
WESTPAC											
CH-53E APT (2F171)		TECH	EFRESH								
				4							
KANEOHE BAY		TSC II	award in Jan	07							
CH-53D OFT (2F121)											
Source of Requirements: H-5	3 TMT and	Marine Co	orps Feder	ation							
LEGEND:	,		npe i euci								
BASE LAN/NETWO	RKING CA	PABILITY		SYSTEM	IN TRAININ	G		MCASMP D	EVICE		
REGIONAL WAN IN I	PLACE			SYS IN DE	EVELOPME	ENT		NON-MCAS		CE	
CONUS WAN IN PLA	CE			SYSTEM		כ					
						-		· · · · ·			

Anticipate 2 to 4 new CH-53E FTD/FFS due to POM-08 funding IOT capitalize on Systems Approach to Training application for CH-53E.

# **AH-1 Training Systems Roadmap**

FY07       FY08       FY09       FY10       FY11       FY12       FY13       FY14       FY15       FY16       FY17         1       2       3       4       1
1234123412341234123412341234123412341234
Program Milestones       OPEVA is 1 sit AH-12 A/C       AH-12 IOC       IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
1       to HMT-303       1
PENDLETON       WST 2F136       Tech Refresh       Image: constraint of the second s
WST       2F136       Tech Refresh       Image: Constraint of the second seco
WST       2F136       Tech Refresh       Image: Comparison of the comparison of
APT       2F170       AH-1W       BCU         RFT       WHMSD       Image: Stress of the stress
APT       2F170       AH-IW       BCU         IRFT W/HMSD       ISt AH-12 FTD       BCU         IFFS       #1       FRS       Z BUILD         ISt AH-12 FTD       No Facility Issue       IST AH-12 FFS         INEW RIVER       Begins       IST AH-12 WST         INFT 2F136       Tech Refresh       AH-1W WST         INFT 2F136       IST AH-12 WST       IST AH-12 WST         INFT 2F136       IST AH-12 WST       IST AH-12 WST         INFT 2F136       IST AH-12 WST       IST AH-12 WST         INF AH-12 WST       IST AH-12 WST       IST AH-12 WST         INF AH-12 WST       IST AH-12 WST       IST AH-12 WST         INF AH-12 WST       IST AH-12 WST       IST AH-12 WST         INF AH-12 WST       IST AH-12 WST       IST AH-12 WST         INF AH-12 WST       IST AH-12 WST       IST AH-12 WST         INF
RFT w/HMSD         PTD       #1       AH-12 FTD       BCU         PFS       #1       FRS       Z BUILD       AH-12 FFS         Transition       No Facility Issue       AH-12 FFS         WST       2F136       Tech Refresh       AH-1W WST         FTD       #2       Image: Comparison of the part o
FTD       #1       AH-1Z FTD       BCU         Ist AH-1Z RAC       Ist AH-1Z RAC         FRS       Z BUILD         Transition       No Facility Issue         NEW RIVER       Begins         WST       2F136         Tech Refresh       AH-1W WST         VST       2F136         Tech Refresh       AH-1W WST         WST       2F136         Tech Refresh       AH-1W WST         WST       2F136         Tech Refresh       AH-1W WST         WST       2F136         Tech Refresh       AH-1W WST         No Facility Issue       Isso         WESTPAC       Isso       Isso         WESTPAC       Isso       Isso       Isso         FTD<#3
FRS       Z BUILD       AH-12 RAC         FRS       Z BUILD       AH-12 FFS         Transition       No Facility Issue       I       I         NEW RIVER       Begins       AH-1W WST       I
FFS       #1       FRS       Z BUILD       AH-1Z FS         Transition       New RIVER       Begins       No Facility Issue       I<
Iransition       No Facility Issue       Image: Construction       Image: Construction         NEW RIVER       Begins       AH-1W WST       Image: Construction       Image: Construction         WST       2F136       Tech Refresh       AH-1W WST       Image: Construction       Image: Construction         FTD       #2       Image: Construction       Image: Constructi
NEW RIVER       Degins       Allow
WST       2F136       Tech Refresh       AH-1W WST       AH-1W UST       AH-1Z FTD         FTD       #2       I       <
WST       2F136       Tech Refresh       AH-1W WST       Z       AH-1W WST       AH-1W
FTD       #2       Z       Z       BUILD       AH-1Z FTD         WESTPAC       I </td
FTD       #2       Z BUILD       AH-1Z FTD         WESTPAC       I
WESTPAC       No       Facility Issue       I
WESTPAC       Image: Constraint of the const
FTD       #3       I
FTD #3 Z BUILD
No Facility Issue
ATLANTA
APT 2F170 BCU
JOHNSTOWN
A <i>PT</i> 2F170 BCU
MCASMP COMPLIANT DEVICE OPERATIONAL/FUNDED UNFUNDED
MCASMP COMPLIANT DEVICE OPERATIONAL/FUNDED UNFUNDED UNFUNDED DISPOSAL

# **UH-1 Training Systems Roadmap**

	FY07 FY08 FY09	9 FY10	FY11	FY12 FY	13 FY	 14 FY15	FY16	FY17
	1 2 3 4 1 2 3 4 1 2 3	41234	1234	123412	3412	3 4 1 2 3 4	1234	1234
Program Milestones								
PENDLETON	to FRS							
<i>WST</i> <b>2F161</b>		UH-1N	wsi					
<b>FTD</b> #4		H-1Y FTD	PCI					
	1st UH-1Y RAC							
<i>FFS</i> <b>#1</b>	Y BUILD	UH-1Y FI	FS		BCU			
	FRS							
NEW RIVER	Transition							
	Begins							
APT <b>2F175</b>	UH-1N APT							
FTD <b>#2</b>				Y BUIL	D		UH-1Y F	TD
				No Facility	Issue			
FUTENMA								
<i>FTD</i> <b>#3</b>						Y BUILD		
						No Facility	Issue	

MCASMP COMPLIANT DEVICE NON-MCASMP COMPLIANT/NOT NETWORKED



	V	/ŀ	-1	7	1		Ąi	ir	C	re	91	N		Tr	6	i	ni	n	g		S	У	S	te	91	m	S	5	R	0	a	C	n	na	a	р								
			F	Y07			FY	′08			FY	09			F۲	0		F	'Y1'	1		F	Y1:	2		F	Y1	3		F	Y14	1		F	Y15	5		F	Y16			FY	′17	_
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1 2	2 3	3 4	l 1	1 2	2 3	3 4	1 ·	1 2	2 3	3 4	. 1	2	2 3	4	1	2	3	4	1	2	3	4	1	2	3	4
Program M	lilestones																																											
FOC is	FY 15																																											
QUA	NTICO	_	_	_								_			_		_	_	_	_		_	_	_	_		_	_	_	_	_	_	_	_	-	_		_	_	_				
VH-3D	APT 2F180													Hos	st/IC	e Re	}-h	ost																										
									Ca	rso	n B	lad	les																							_								
VH-60N	APT 2F181	-								Но	st/I	GR	le-r	nost																														
		-					Co	okr		Inc	rad	10																																
			1	1	1			Crl	1	ւրն	lau	ie I										1				1								1	1			1	1					
VH-3D/60N	NTSP								Re	vie	w					F	l Rev	iew																										
VH-71A	NTSP/MER	Re	evie	w					Re	vie	w		Re	viev	v		T																											
VH-71A Inc-1	СРТ		Со	ckp	oit F	oro	ced	ure	s T	rai	ner																																	
	CSO	C	om	mu	inic	atio	ons	Sy	stei	ms	Ор	era	tor	Tra	ine	r																												
VH-71A Inc-2	OFT		O	per	atic	ona	I FI	igh	t Tr	air	er	(OF	-т)																															
2	OFT									(	Эре	rat	tion	al F	lig	ht T	rai	ner	Fa	cili	ty																							
	CMT							Co	mp	osi	te N	Mai	nte	nar	ice	Tra	ine	er (C	смт	[)																								
	CBT Inc 1							Co	mp	ute	r B	ase	d T	<b>Frai</b>	nin	g (C	вт	) - I	nc '	1																								
	CBT Inc 2							Co	mp	ute	r B	ase	ed 1	[rai	nin	g (C	звт	) - I	nc 2	2																								
	Training											Col	ntra	acto	or/D	T/0	тс	)pei	rato	or a	nd	Ma	int	ena	anc	ce 1	rai	nin	g -	Inc	: 1-:	2												
Roadmap Leg	end																																											
	System Und	er D	eve	elo	pme	ent	/ M	odi	fica	atio	n																																	
R	System Fully	y Fu	nde	ed /	/ 0	bera	atio	na																																				
	Unfunded																																											

MCASMP COMPLIANT DEVICE NON-MCASMP COMPLIANT/NOT NETWORKED





# **AV-8B Aircrew Training System Roadmap**



# **FA-18 Training Systems Roadmap**

				FYC	)7	Τ	FY	08	Т	FY	′09		F	Y1	0		FY	11	Γ	FY	<b>′12</b>	Τ	F١	′13		F	Y1	4		FY	15	Т	F١	/16	;	F	Y1:	7
			1	2	3 4	1	2	3 4	1	2	3	4	1 2	2 3	4	1	2	3 4	1	2	3 4	1	2	3	4	1 2	2 3	4	1	2	3 4	1	2	3	4	1 2	2 3	4
AIRCE	REW TRAI	NERS																														T						
E	BEAUFOR	Г																					Γ				Τ	Γ										
FA-18C	WTT	#7																																				
FA-18C	TOFT	#28		_																																		
FA-18C	TOFT	#40																																				
FA-18D	TOFT	#34																																				
FA-18D	TOFT	#36																																				
	MIRAMAR	l in the second s																																				
FA-18C	PTT	#3 S1																																				
FA-18C	PTT	#3 S2																																				
FA-18C	OFT	#6																																				
FA-18C	OFT	#8																																				
FA-18C	TOFT	#32																																				
FA-18C	TOFT	#33																																				
FA-18C	TOFT	#37																																				
FA-18C	TOFT	#38					U	IFUI	VDE	Ð																												
FA-18D	TOFT	#30																																				
FA-18D	TOFT	#31																																				
	IWAKUNI																																					
FA-18C	OFT	#7																	Ι.																			
FA-18D	APT	MCASMP			M	iss	ion	CO	MP	UP	GRI	D	1	Disp	olay	Up	ogra	ade		На	ard wa	are	Re	fre	sh													
FC	ORT WOR	TH																																				
FA-18C	TOFT	#11																																				
<b>FA-18C</b>	TOFT	#16								TF	RAI	٧S	FE	RF	FRC	DM	A	TSU	GI																			
																																						- I

Developing COAs to fund/address requirements for new TOFTS at Miramar, Iwakuni, and Fort Worth.



OPERATIONAL/FUNDED UNDER DEVELOPMENT/MODIFICATION



# EA-6B Aircrew Training Systems Roadmap

a																													ľ
	l	F	Y07		FY	08	F١	Y09	F	Y10		FY11	1	FY1	2	F١	(13	1	FY1	4	F	Y1:	5	F	Y1(	6	F	Y1	17
¥		12	23	4 1	2	3 4	12	234	12	23	4 1	23	4 1	23	4	12	34	1 1	23	3 4	12	23	4	1	2 3	4	12	2 3	3 4
AIRCRAFT (ICAP	P III)		BL	_K3	3	BLK	(4																						
AIRCRAFT (ICA	P II)	E	3LK	4	BL	LK5																							
WHIDBEY												TII																	
OF/NT 2	2F143		BL	K 2	1			PC	SS	IBL	ΞD	ISPC	SA	L/R	EL			ÖN	6/0	)9 [	DU	ΞT		F/#	<b>4-1</b> 8	8G	т	ЭF	T
TTT 1	15E22C	BL	K3	E	3LK	(4	RE	H																					
ECT 1	15E34B		1 1	F	SEH			1		1		, , ,																	4
	05407		14.0			-     • D																							
WSI /	2F187	BL	Νð	98	/10/			SLN	′ <b>1,∠</b> ,	JKE	-m 1	1															-	-	-
	<b>2</b> ⊑125	3		3		PO9		<u> </u>			ا ۵۲			СН		ÞV	PO	L TNT	5/	<u></u>	<u>ן וח</u>	<u> </u>		<b>E</b> /,	 ^_1		╧┱		╧┱
	21105	2			1														5,						H		—	T	+
ттт	15E43	2		2 E	3LK	(1.2	2.3				R	EH																	
							.,_																		T		T	T	T
MTU	11H163																												
					T																						T	T	T
MTU	Various		BL	_ <mark>K</mark> 4	4																						Ż		
CHERRY POIN	IT		T																						T		T	T	T
OF/NT 2	2F143	BL	<mark>.K</mark> 3		BL	LK4							Т	ECH	IR	EFF	RES	Ĥ											
			Л	BL	K3/	vis/	'REF	1																			I	I	
TTT	15E22C				BL	_K4				M	CAS	SMP	TE	CHI	REF	FRE	ESH												
WST	2F188																												
IWAKUNI																													
WST	2F178		89	A	BL	LK3	/4 L	JNF	UND	DED																			
All Whidbey	Island T	ſra	ini	ng	; <b>D</b>	evi	ces	s to	be	dis	po	osed/	'rel	oca	ate	d ł	oy 1	the	e ei	nd	of	F	<b>Y</b> 1	2					
MCASMP (	Complian <sup>-</sup>	T DE	VIC	E			[			OF	PER		IAL/	FUN	DEI	D								ן נ	JNF	UN	IDE	Đ	
NON-MCAS NETWORK	NON-MCASMP COMPLIANT/NOT UNDER DEVELOPMENT/MODIFICATION DISPOSAL DISPOSAL																												

# C/KC-130 Aircrew Training Systems Roadmap



MCASMP COMPLIANT DEVICE

NON-MCASMP COMPLIANT/NOT NETWORKED



OPERATIONAL/FUNDED

DEVELOPMENT/MODIFICATION

UNDFR

UNFUNDED

DISPOSAL

10-15

# Section 11 --- Marine Aviation Logistics

Marine Aviation Logistics: Current Support Posture	11-2
Marine Aviation Logistics: Future Support Strategy	11-3
AIR Speed & Marine Aviation Logistics Support Program II (MALSP II) Site Rollouts	11-6
Marine Rotary Wing Aviation Logistics Plan	11-7
Marine Fixed Wing Aviation Logistics Plan	11-9

## Marine Aviation Logistics: Current Support Posture

Marine Aviation is transforming – and so is the logistical system that supports it. Marine Aviation Logistics provides organizational and intermediate-levels of aviation maintenance, tactical supply, ordnance, and avionics in support of the Aviation Combat Element (ACE) of the Marine Air Ground Task Force (MAGTF). The vision of Aviation Logistics in the future is flexible, agile, and reliable support to the ACE with a lighter/smaller logistics footprint and accompanied by proactive decision-making approaches and tools. In response to CMC's intent to grow Marine Aviation, Marine Aviation Logistics is setting the stage to support this growth in structure with an accompanying growth in infrastructure and maintenance capability.

The current Aviation Logistics system and doctrine – the Marine Aviation Logistics Support Program (MALSP) – has a history of excellence in supporting Marine Aviation. Created in the 1980s, MALSP was the progressive logistics strategy of its time. MALSP was the cornerstone of ACE support in Desert Shield/Desert Storm, and it continues to support the ACE's readiness in the Global War on Terror (GWOT). MALSP capitalizes on the logistics capabilities of the Maritime Prepositioning Force (MPF) and the Aviation Logistics Support Ship (T-AVB) Programs and is anchored in the Contingency Support Program .

The Contingency Support Program consists of incrementally robust deployable packages—called Contingency Support Packages (CSPs)—of spare parts (Aviation Consolidated Allowance Lists), support equipment (SE) Individual Material Readiness List allowances, mobile facilities (MFs) (NAVAIR Table of Basic Allowances), and personnel. The CSPs combine to form intermediate-level aviation logistics support to the ACE in war. The CSPs that provide support today are: <u>Fly-In Support Package (FISP)</u> – The FISP provides organizational-level remove-and-replace spare parts to support the initial 30 days' sorties at combat flying hour utilization rates. The FISP is deployed with the Fly-in Echelon (FIE) and/or Flight Ferry (FF) of the deploying ACE and is critical to enabling initial combat operations.

<u>Remote Expeditionary Support Package (RESP)</u> – The RESP combines with FISP spares and provides personnel, SE, and additional MFs tailored to sustain the ACE during the first 30 days of operations until the CSPs arrive in theater.

<u>Common CSP (CCSP)</u> – The follow-on to the FISP and/or RESP, the CCSP is the baseline core capability of the intermediate-level support of the deploying Marine Aviation Logistics Squadron (MALS). The CCSP is subdivided into fixed and rotory wing CCSPs.

<u>Peculiar CSP (PCSP)</u> – Also a follow-on to the FISP, the PCSP is unique to the Type/ Model/Series aircraft (number and type) and combines with the CCSP to form the MALS intermediate-level capability. CCSPs and PCSPs combine to provide 90 days of combat flying hours depth of sustainment.

<u>Follow-On Support Package (FOSP)</u> – The FOSP is a deployable intermediate-level capability that, due to its size and footprint, may be phased to a theater of operation depending on mission requirements and mission duration.

<u>Training Support Allowance (TSA)</u> – The TSA is a 30-day support package specifically tailored to support a Fleet Replacement Squadron. As such, the TSA does not deploy.

## Marine Aviation Logistics: Future Support Strategy

While MALSP has a proven record of success, the future ACE will require logistics that is more flexible, that responds with increased speed and reliability, and which needs a smaller logistics footprint during operational employment. The transformation of today's MALSP is predicated on evolving global conditions (e.g., asymmetric threats and overseas antiaccess and area denial), advances in technologies (i.e., aircraft design such as the Joint Strike Fighter (JSF), Autonomic Logistics (AL), and In-Transit Visibility (ITV)), and modern warfighting concepts (e.g., Expeditionary Maneuver Warfare and Sea Basing). The Aviation Logistics strategy is to provide disciplined focus to update MALSP to MALSP II along the three pillars of change – process, technology, and people.

#### **PROCESS**

#### **AIR Speed**

The foundational philosophy and holistic process change for Aviation Logistics is AIRSpeed. Tomorrow's MALS will provide better support and with a lighter footprint largely due to the AIRSpeed logistics approach. A strategy that's rooted in the Naval Aviation Enterprise, AIRSpeed combines the best practices of Theory of Constraints, Lean, and Six Sigma to solidify the end-to-end Marine Aviation Logistics chain. This chain consists of the MALS and other entities of the Naval Aviation logistics system, including wholesale supply, distribution, depot maintenance, engineering support, and policy. Since 2004, the MALS in CONUS and OCONUS have been redesigning their processes to support the goal of improved aircraft readiness. The MALS use these best practice tools to redesign their processes to provide better direct support to flying squadrons. In accomplishing this, key resource buffers are resized, and in some cases repositioned, based on a better understanding of the demand patterns of the tactical aviation unit. The value of AIRSpeed to MALS is that it provides a new thinking framework that gives the MALS the capability to better deploy, employ, and readily adapt today's legacy MALSP packages and maintenance capabilities for a full range of expeditionary scenarios in the future.

AIRS	PEED
From this	to this
Push System	Pull System
Days-of-Usage Depth	Flexible "Time-Buffer" Depth
Fixed-Allowance Resource Packages	Dynamic Support Packages
Large Footprint	Agile Footprint
Reactive System	Proactive System

#### **TECHNOLOGY**

#### <u>Marine Aviation Logistics Support Program II (MALSP II)</u> <u>Demonstration Pilot</u>

Since early 2005, Aviation Logistics has been conducting a MALSP II Pilot in OPERATION IRAQI FREEDOM (OIF). The objective of the Pilot is to define the characteristics of AIRSpeed in an expeditionary and dynamic environment while blending new technology and web-enabled software. In FY07, Aviation Logistics will stand up a MALSP II Program Office and continue to apply "lessons learned" in the pilot to further refine MALSP II.

## Marine Aviation Logistics: Future Support Strategy

#### Expeditionary Pack-Up Kit (EPUK)

Marine Corps aviation squadrons are capable of rapidly deploving to remote and austere locations throughout the world to conduct flight operations. Squadrons may operate out of a variety of airfields, from unimproved airfields with little infrastructure to larger airfields capable of supporting large numbers of aircraft. The Marine Corps' future operating concept supports expeditionary maneuver warfare through increased readiness, flexibility, agility, and responsiveness to the war fighter with a reduced footprint and cost. EPUK is designed to provide on-site management of materials and equipment while maintaining electronic connectivity with the supporting MALS at dispersed geographic locations. HQMC Aviation has contracted with Intermec Technologies, Phase IV Engineering and SPAWAR to design, develop and deliver a rugged EPUK capability to support this requirement. In addition, EPUK will integrate with other logistics management tools to provide complete visibility of the warfighter's demand, inventory levels, materials in transit, and retrograde shipments.

#### Autonomic Logistics (AL)

The JSF program is setting the standard for AL within the DoD. In exploring an Enterprise Resource Planning (ERP) solution, Aviation Logistics is mindful of Marine Aviation's requirement for the ERP solution to interface with AL technology with minimal coding.

#### <u>PEOPLE</u>

#### Marine Aviation Logistics Squadron-Future (MALS(F))

The introduction of new logistics processes and technology will have a significant effect on the organization of the MALS of the future. Under MALS(F), Aviation Logistics is exploring how the future MALS will be organized in an AIRSpeed-MALSP II environment. The analysis will identify notional skill sets, distribution capabilities, and maintenance capabilities for the future MALS.

#### Fleet Readiness Center (FRC)

The FRC is a recent opportunity that will be a key element to the future of the MALS organization. Under Enterprise AIRSpeed, the Navy is pursuing the FRC concept as a significant organizational change. The FRC objective is to use AIRSpeed tools to collapse the Navy's three levels of maintenance to two, organizational and depot. Marine Aviation is a principal stakeholder in FRC, as it relies on the Navy for depot-level support and Marine Aviation Logistics Squadrons provides intermediate-level support. The Deputy Commandant for Aviation has stated Marine Aviation supports the underlying intent and objectives of the FRC concept: however, while the FRC concept correctly aims at improving integration and efficiencies, these objectives cannot encumber Marine Aviation's responsiveness or force-in-readiness mandate. In FY06, Marine Aviation and Aviation Logistics will partner in FRC, judiciously balancing the desire to integrate, economize, and realign with the imperative to remain expeditionary and ready to fiaht.

## Marine Aviation Logistics: Future Support Strategy

#### Logistics Integration

On 16 June 2005, the Deputy Commandants for Aviation and Installations & Logistics (I&L) signed the MAGTF Logistics Integration (MLI) Terms of Reference (TOR). The objective of MLI is to integrate key Marine Ground and Marine Aviation Logistics processes and enablers to ensure the effectiveness and efficiency of MAGTF logistics in the future Sea Base battle space. To that end, Aviation Logistics and the Logistics Vision and Strategy Center (LPV) of I&L have partnered on a focused plan to integrate, where essential and feasible, key areas within the Aviation and Ground logistics.
## Marine Aviation Logistics: Future Support Strategy AIRSpeed Roll-Out Strategy



Wave 3 shops being designed and implemented at MALS; Waves 1 and 2 shops controlling variability in their original designs or continously improving their processes

All shops identified for AIRSpeed implemented and continuously improving processes

#### MARINE ROTARY WING AVIATION LOGISTICS PLAN

		EY07	FY-08	EY09	FY10	FY11	FY12	FY13	FY14	FY15	EV16
		1234	1234	1234	1234	1234	1234	1234	1234	1234	1234
UNIT/LOCATION	EQUPMENT										
MAG-16 MIR											
MALS-16		AS	M2 ONG	DING					-		-
	36 CH-46E FISP					M	V				
	2 X 16 CH-53E FISP										
	36 CH-46E PCSP					M	V				
	3 X 16 CH-53E PCSP										
	CCSPRW										
	FOSP										
	274 MF										
MAG-24 K-BAY											
MALS-24		AS M2	ONG	OING							
	2 X 10 CH-53D FISP										
	2 X 10 CH-53D PCSP										
	CCSPRW										
	FOSP										
	76 MF										
MAG-26 NR											
MALS-26		AS	M2	ONGOING	j						
	18 AH/9 UH FISP		I				Y	V			
	36 CH-46E FISP	IVI			V		1	1	K		
							V	<u> </u>	ĸ		
		N.4					Y	V			
			r		V				K		
									N		1
	EOSP										
		N/L			V						
	269 MF				V						
MAG-29 NR	20710										
MALS-29		AS M2	ONG	OING	<u> </u>	•					
	18 AH/9 UH FISP						Y	V			
	36 CH-46E FISP		M			V					
	16 CH-53E FISP								К		
	18 AH/9 UH PCSP						Y	V			
	36 CH-46E PCSP		M			V					
	16 CH-53E PCSP								K		
	CCSPRW										
	FOSP										
	TSA CH-53E								К		
	269 MF										
MAG-36 FUT											
MALS-36		AS	M2	ONGOIN							
	18 AH/9 UH FISP										
	24 CH-46E FISP	I								M	V
	12 KC-130F/R/J FISP	J		V							
	16 CH-53E FISP										
	10 CH-53D FISP										
	18 AH/9 UH PCSP										
	24 CH-46E PCSP									M	V
	12 KC-130F/R/J PCSP	J		V							
	16 CH-53E PCSP										

#### MARINE ROTARY WING AVIATION LOGISTICS PLAN

		FY07	FY-08	FY09	FY10	FY11	FY1	2	FY13	FY14	FY15	FY16
		1234	1234	1234	1234	1234	123	8 4	1234	1234	1234	1234
UNIT/LOCATION	PAA											
MAG-36 FUT												
MALS-36												
	10 CH-53D PCSP											
	CCSPRW											
	FOSP											
	269 MF											
MAG-39 PEN												
MALS-39		AS M 2	ONGOIN	<u></u>								
	2 X 18 AH/9 UH FISP		Y				V	Z				
	36 CH-46E FISP						M	V				
	3 X 18 AH/9 UH PCSP		Y				V	Ζ				
	36 CH-46E PCSP						М	V				
	CCSPRW		Y				V	Ζ				
	FOSP											
	TSA AH/UH		Y	-			V	Ζ				
	279 MF											
MAG-42 ATL												
MALS-42		DEACTIV	ATE 08									
	12 AH/6 UH SHORCAL		CONSOLI	DATED W	ITH MALS-	49						
	6 AH/3 UH SHORCAL		CONSOLI	DATED W	ITH MALS-	49						
	12 CH-46E SHORCAL		CONSOLI	DATED W	ITH MALS-	49						
MAG-46 EDW												
MALS-42 DET A		AS	M 2	CONSOLI	DATED WI	TH MALS-	49	-				
	12 AH/6 UH SHORCAL			CONSOLI	DATED WI	ITH MALS-	49					
	12 CH-46E SHORCAL			CONSOLI	DATED WI	ITH MALS-	49					
	8 CH-53E SHORCAL			CONSOLI	DATED WI	ITH MALS-	49					
MAG-49 WLG												
MALS-49		AS M 2	ONGOIN	j								
	8 CH-53E SHORCAL											
	6 AH/3 UH SHORCAL								Y Z		V	V

Y = YANKEE TRANSITION BEGINS

Z = ZULU TRANSITION BEGINS

J = KC-130J TRANSITION BEGINS

M = MV-22 TRANSITION BEGINS

K = CH-53K TRANSITION BEGINS

V = TRANSITION COMPLETE

AS = AIRPSEED TRANSITION

M2 = MALSP II TRANSITION

			M	ARINEFI	XED WIN	G AVIATI	ON LOGI	STICS PL	AN		
		FY07	FY-08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
		1234	1 2 3 4	1234	1 2 3 4	1 2 3 4	1 2 3 4	1234	1234	1234	1 2 3 4
UNIT/LOCATION	EQUPMENT										
MAG-11											
MALS-11		M 2 0	NGOING								
	36 FA-18 FISP										
	24 FA-18 FISP										
	12 KC-130F/R/J FISP	<b>J TRANSI</b>	TION COM	1PLETE							
	36 FA-18 PCSP										
	24 FA-18 PCSP										
	12 KC-130F/R/J PCSP	J TRANSI	TION COM	1PLETE							
	CCSPFW										
	FOSP										
	TSA 29 FA-18A/B/C/D										
	570 MF										
MAG-12 IWA											
MALS-12		M2 0	NGOING						-		
	36 FA-18 FISP										
	14 AV-8B FISP										
	5 EA-6B FISP										
	36 FA-18 PCSP										
	14 AV-88 PCSP										
	5 FA-6B PCSP										
	CCSPEW										
	EOSP										
	414 MF										
MAG-13 YUM											
MALS-13		ΔS	M2	ONGOING	3						
Willeb Po	2 X 14 AV-88 FISP	R = 14		0.1001.10				S		V	
	3 X 14 AV-88 PCSP	R = 14						s		V	
	CCSPEW							<u> </u>		, j	
	EOSP										
	313 ME										
MAG-14 CP	010 111										
MALS-14		M2 0	NGOING								
	3 X 5 EA-6B EISP										
	2 X 14 AV-88 FISP	R = 14		S	V						
	12 KC-1301 FISP	I TRANSI	TION COM								
	3 X 5 FA-6B PCSP										
	3 X 14 AV-8B PCSP	R = 14		S	V						
	12 KC-1301 PCSP	I TRANSI									
	CCSPEW										
	EOSP										
	TSA AV-8B										
	TSA KC-1301										
	TSA KC-130F/R										
	547 ME										
MAG-31 BFT											
MALS-31		M2 0	NGO ING								
	2 X 36 FA-18 FISP										
	2 X 36 FA-18 PCSP										
	CCSPFW	1									
	FOSP	1									
	381 MF										
MAG-41 FTW	50 T WI										
MAI S-41		AS M2		ONGOING	3						
		R = 10		511301110							

#### MARINE FIXED WING AVIATION LOGISTICS PLAN

		FY07	FY-08	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16
		1234	1234	1234	1234	1234	1 2 3 4	1234	1234	1234	1 2 3 4
UNIT/LOCATION	EQUPMENT										
MAG-42 ATL	DEACTIVATE 07										
MALS-42											
	12 FA-18A SHORCAL	R = 10									
MAG-46 MIR	DEACTIVATE 08										
MALS-41 DETA		M 2									
	12 FA-18A SHORCAL	R = 10									
MAG-49											
MALS-49		AS M 2	ONGOI	NG							
	12 KC-130T SHORCAL										

J = KC-130J TRANISTION BEGINS

S = JSF TRANSITION BEGINS

R = PAA REDUCTION

V = TRANSITION COMPLETE

AS = AIRSPEED TRANSITION

M2 = MALSP II TRANSITION

# Section 12 --- Marine Aviation Ground Support Plan

Marine Aviation Ground Support Plan

12-2

## Marine Aviation Ground Support Plan

<u>MARINE WING SUPPORT GROUP</u> (MWSG): To provide all essential aviation ground support (AGS) requirements to all components of the Aviation Combat Element (ACE).

<u>AGS</u>: Consists of ground support functions required (less aircraft supply, maintenance, and ordnance) for sustained air operations at forward operating bases (FOBs) and air bases. It is the critical component that gives Marine Aviation its expeditionary capability. AGS is comprised of 14 functions:

- Internal airfield communications
- Meteorological and Oceanographic (METOC) services
- Expeditionary Airfield Services (EAF)
- Airfield Rescue and FireFighting (ARFF)
- Aircraft and Ground Refueling
- Explosive Ordnance Disposal (EOD)
- Essential Engineer Services
- Motor Transport (MT)
- Field Messing Facilities
- Routine and Emergency Sick Call and Medical Functions
- Individual and Unit Training
- Nuclear, Biological, and Chemical (NBC) Defense
- Security and Law Enforcement Services
- Air Base Commandant Functions

Currently there are three active MWSG(s) and one Reserve MWSG. The MWSG(s) within 2<sup>nd</sup> and 3<sup>rd</sup> MAW possess four deployable Marine Wing Support Squadrons (MWSS), the MWSG within 1<sup>st</sup> MAW has two MWSS(s). Our Reserve component has 3 MWSS(s).

### **<u>CAPABILITY ENHANCEMENT</u>**: The MWSG/MWSS continue to

- update and upgrade their capabilities though table of organization changes and taking advantage of future technologies to provide AGS to the ACE. Those areas include:
- Table of Organization changes to mirror-image the MWSS to better support composite flying squadrons with the two FARP/one FOB concept and support equipment changes as a result of the Marine Corps Equipment Review Group (MCERG).
- Developing Air Base Ground Defense (ABGD) concept utilizing Light Anti-Air Defense Battalions as augmentation to the MWSG as a secondary mission.
- Working with D/C I&L to implement the three level maintenance concept and way ahead for the MWSS.
- Dust Abatement to prevent brown-out conditions and decrease FOD hazards in austere landing zones or air bases.
- Lightweight Airfield Surfacing lessens the logistical burden of the current AM-2 matting by approximately 50%.
- Fielding the Airfield Damage Repair (ADR) kit for expeditious repair of landing surfaces for tactical aircraft at FOB(s).
- Advanced Airfield Lighting smaller, less maintenance intensive self-contained system. Exploring solar capabilities for near future.
- Fielding the METMF(R) next generation that will be a modular, highly mobile weather sensing and forecasting system to support all elements of the MAGTF
- Procuring a smaller, more deployable, but just-as-capable Fire Fighting Truck to replace the P19 Fire Fighting Truck

# Marine Aviation Ground Support Plan (Cont'd):

	F	Y 0	7	F	Y 0	8	F	-Y (	)9		FY	10		FY	11		FY	12	2	F١	( 13	3	F	Y 1	4	F	Y	15		FY	16	Т	FY	17	<u>ا</u>
	1 2	23	8 4	1	23	4	1	23	34	1	2	3 4	41	2	3	4 <sup>-</sup>	12	3	4 <sup>′</sup>	1 2	3	4	1 2	23	4	1	2	3⊿	1	2	3 4	11	2	3	4
MAJOR EQUIPMENT LIFECYCLE																												Т							
FAMILY OF CONSTRUCTION EQUIPMENT					T	Ħ															Ħ			T		Ħ				Π					
Medium Crawler Tractor (D7R)	L															F																			
Multi Terrain Loader				L		Π			F																										
Family of Engineer Contruction Tool Kits				L		Π			Т							F																			
FAMILY OF MATERIAL HANDLING																												Т			T	T		Т	
Rough Terrain Container Handler (RTCH)			F																					S	LE	Ρ	Τ	T							
All Terrain Crane 25 Ton (ATC)												F	-											S	LE	Ρ									
Light Rough Terrain Forklift (LRTF)							L									F																			
Tractor, Multi-purpose (TRAM)																F													S	EF	2				
Air Mobile Crane 7.5 Ton (AMC)													-														F	F							
AIRCRAFT AND GROUND REFUELING																																			
Mobile Refueling Capability (MRC)	L					F																											$\Box$		
Flatrack Refueling Capability (FRC)							Ι									F																			
UTILITIES																																			
Containorized Batch Laundry Unit (CBL)	l		F																																
Expeditionary Bath Shower Unit	L		F																								Т						$\square$		
Floodlight Set	L								F																		Т					T	$\square$		
Environmental Control Equipment	L								F																		Т						$\square$		
Mobile Electric Power Distribution & Field Wiring	L																										Т					T	$\square$		
EXPEDITIONARY FIELD SERVICES																																			
LTWT Airfield surfacing (Mobi & Helimat)																						F													
Man-portable Lighting			F																								Т					T	$\square$		
Sustainment (FOB) Lighting							Τ					F	F																			T	$\square$		
MOTOR TRANSPORT																												Т							
P-19R																											Т					T	$\square$		
Medium Tactical Vehicle Replacement (MTVR)																																			
MTVR Family of Trailers	L											F	-																						
LVS (R)							L									F																			
METOC																												T							
METMF(R) to METMF (R) -NEXT GEN																							I				T	T							

I – INITIAL PLANNED FIELDING F- FIELDING COMPLETE SLEP- SERVICE LIFE ENTENSION PROGRAM

• DEPICTED FIELDING PLANS DO NOT ENCOMPASS ALL AVIATION GROUND SUPPORT CAPABIILITIES

## Section 13 --- Marine Corps Air Station Facilities Upgrade/MILCON Plan

### MILCON PLAN IN SUPPORT OF USMC 202K GROWTH IS UNDER REVIEW

Marine Corps Air Station Facilities Upgrade/MILCON Plan

13-2

				F	Y05	F	Y06		FY07			FY08			FY09		
LOCATION	PROJ #	TITLE	COST \$M	ENACTED	goj Funded	ENACTE D	GOJ FUNDED	PR-07	goj Funded	PROPOSED TO GOJ	POM-08	GOJ FUNDED	PROPOSED TO GOJ	PR-09	goj Funded	PROPOSED TO GOJ	PROPOSED TO MILCON PEG
	D (17	SIMULATOR BUILDING	¢0.0	v													
	P-617		\$2.3	X													
	P-630	BEU	\$20.8	X		-											
	P-648	AIRCRAFT MAINTENANCE TRAINING FAC	\$12.1	x													
	P-663	SECURITY UPGRADES	\$2.5			x											
	P-526	AIRCRAFT HANGAR	\$22.2					х									
MCAS NEW RIVER	P-651	V-22 HANGAR ADDITION	\$13.3								х						
	P-670	JET ENGINE TEST CELL	\$16.1								х						
	P-671	A/C FIRE & RESCUE	\$4.2			x											
	1-071	COMBAT TRAINING	\$4.Z			~											
	P-660	TANK	\$4.7														х
	P-632	BEQ	\$26.0														Х
	P-634	BEQ	\$18.7											Х			
	P-620	ENLISTED DINING	\$15.2											x			
	P-615	Apron Expansion	\$5.0											x			
	P-032	CONSOLIDATED OPS CENTER	\$4.9	x													
	P-038	Const Wht Handling Shop	\$5.8	x													
	P-037	FLIGHTLINE SECURITY FENCE TAXIWAY	\$1.4			x											
	P-036	IMPROVEMENT	\$1.4					х									
MCAS PENDLETON	P-078	TACTICAL VAN PAD EXPANSION	\$8.1					x			x						
	P-099	MALS DEPOT LEVEL MAINTENANCE COMPOUND	\$22.5														x
		HANGAR 02															
	P-070	ADDITIONS SECURITY STAND- OFF STRUCTURF	\$3.2								X						x
	P-448	WHITE SIDE	\$18.6	x													
	P-449	GREEN SIDE HANGAR COMPLEX	\$21.2	x													
MCAF QUANTICO	P448A	WHITE SIDE HANGAR (PHASE II)	\$34.0			x											
	P-495	AIRCRAFT APRON	\$34.0											х			
	P-496	AIRCRAFT PARKING APRON (WHITE)	\$22.0			x											
	P-517	GREENSIDE MAINTENANCE HANGAR, TYPE II	\$22.5											х			

				F	(05	F	Y06		FY07			FY08			FY09		
LOCATION	PROJ #	TITLE	COST \$M	ENACTED	goj Funded	ENACTE D	GOJ FUNDED	PR-07	GOJ FUNDED	PROPOSED TO GOJ	POM-08	GOJ FUNDED	PROPOSED TO GOJ	PR-09	goj Funded	PROPOSED TO GOJ	PROPOSED TO MILCON PEG
	P-440	BEQ	\$17.8	Х													
	P-485	STATION ORDNANCE AREA	\$7.9	х													
	P-521	ROTARY WING FUELING APRON	\$3.6			x											
	P-520	FIXED WING FUELING APRON	\$5.0					х									
	P-498	BEQ	\$21.6								x						x
	P 501	FIRE STATION	\$0.0														x
	1-301	WATER SURVIVAL	\$7.0														~
	P-527		\$5.6														x
MCAS YUMA																	
	P-495	FACILITY	\$12.8											х			
		STUDENT															
		OFFICERS															
	P-421	QUARTERS	\$18.9														Х
	D 510	CONSTRUCT TOW	¢0.(											v			
	P-219	Aircraft Maint	\$0.0¢											^			
	P-447	Hangar	\$20.1														х
	D 532	SOUTH ENTRY	\$6.0														×
	F-332	OATE	\$0.0														^
	P-364	CENTER ADDITION	\$6.9														x
		MULTIPURPOSE															
	MC-954	WHARF	\$50.0		Х												
	MC-919		\$14.6		Х												
	MC-010	TROOP TRAINING	\$4.2		Х												
	MC-0226	AREA	\$2.4		х												
	MC-0255	GENERAL PURPOSE WHARF	\$18.1		x												
	1010 0233	SOUTH UTILITY	\$10.1		X												
	MC-102	PLANT SEWAGE	\$22.0				Х										
	MC-0315	TREATMENT PLANT PHASE I	\$4.9				х										
	MC-0427	ADMIN BUILDING	\$17.0				х										
MCAS IWAKUNI		AIRCRAFT HANGAR															
	MC-0201		\$12.7						Х								
	MC-0320	MAIS	\$18.0						х								
	MC-0330	AIRCRAFT HANGAR	\$12.0						х								
	MC-116	MALS ALSS	\$2.4						Х								
	MC-0404	CONTROLLED STORAGE	\$3.8						х								
		WATER SYSTEM															
	MC-0425	WATER SYSTEM	\$2.0						X								
	MC-0446	UPGRADE MONZEN BIOLER	\$2.2						Х								
	MC-0222	PLANT	\$4.4							Х							
	MC-0403	SHED	\$1.0							х							

				F	Y05	F	Y06		FY07	1		FY08			FY09		
LOCATION	PROJ #	TITLE	COST \$M	ENACTED	goj Funded	ENACTE D	goj Funded	PR-07	goj Funded	PROPOSED TO GOJ	POM-08	GOJ FUNDED	PROPOSED TO GOJ	PR-07	goj Funded	PROPOSED TO GOJ	PROPOSED TO MILCON PEG
	MC-832	AIRCRAFT PARKING APRON	\$9.9									x					
	MC-0421	AIRCCRAFT HANGAR PHASE III	\$20.1									х					
	MC-718	AV-8B TRAINER	\$7.1										х				
MCAS IWAKUNI	MC-0442	CONSOLIDATED SEWAGE PHASE II	\$8.0										х				
	MC-0407	MAINTENANCE COMPOUND	\$7.9												х		
	MC-936	AIR CARGO TERMINAL	\$8.7													х	
	MC-112	SEABEE COMPOUND	\$6.3													х	
	P-919 P-918	ARMORY	\$2.3 \$24.2														X
			ΨΖΠ.Ζ														~
	P-720	HIGH EXPLOSIVE MAGAZINES	\$5.0			x											
	P-124	ACUIZ LAND	\$1.9			х											
		ORDNANCE OPERATIONS															
	P-127	BUILDING OPERATIONS &	\$1.9			X											
	P-122	MAINTENANCE	\$9.8														x
	P-131	WING HQ/IPAC	\$15.9														Х
MCAS CHERRY POINT	P-130	Motor Transport & Comm Shop	\$7.4														х
	P-658	INDOOR FITNESS CENTER	\$9.9														х
	P-831	FACILITIES MAINTNENANCE SHOP	\$13.6														х
	P-129	MACS-2 OPSERATIONS & MAINTENANCE	\$5.2											х			
	P-142	FIRE STATION	\$7.6														Х
	P-817	CAMP SMITH FIRE	\$5.7			х											
	P-749	BEQ	\$29.1														Х
	P-816	WATERFRONT OPERATIONS FACILITY	\$10.2														х
	P-006	PHYSICAL FITNESS FACILITY	\$10.4											х			
MCB HAWAII	P-820	MOUT FACILITY	\$21.3														Х
	P-823	WESTERN PACIFIC	\$9.7														х
	P-736	RENOVATE TROOP TRAINING CENTER	\$9.0														x
	P-822	MCAF OPERATIONS COMPLEX	\$33.3														х

				F	Y05	F	Y06		FY07			FY08			FY09		
LOCATION	PROJ #	TITLE	COST \$M	ENACTED	goj Funded	ENACTE D	GOJ FUNDED	PR-07	goj Funded	PROPOSED TO GOJ	POM-08	GOJ FUNDED	PROPOSED TO GOJ	PR-09	goj Funded	PROPOSED TO GOJ	PROPOSED TO MILCON PEG
	P-818	MARFORPAC HO	\$77.7														x
MCB HAWAII	1 010		<i><i><b>ψ</b>11.1</i></i>														X
	P-774	STORAGE	\$7.3														х
	MC-0225	DRAINAGE	\$1.7				x										
	1110 0225	HANGAR ADMIN	<b>\$1.7</b>				~										
	MC-0355	ADDITION	\$9.6				х										
MCAS FUTENMA	MC-0441	COMM ELECTRIC	\$1.9										x				
	MC 0450	WAREHOUSE	¢1.7										~			v	
	MC-0458		\$5.6													X	
	P-615	TOWER	\$9.5														х
		ENLISTED DINING															
	P-419	FACILITY AICUZ LAND	\$15.4					X									
	P-424	ACQUISITION,	\$12.7					х									
	D 105	A/C FIRE & RESCUE	¢12.7					~									
	P-435	AICUZ LAND	\$5.5	X													
	P-433	ACQUISITION,	\$13.4														x
		LAND															
MCAS REALIEORT	P-439	ACQUISITION,	\$11.9														х
MONO BENOI ONT		MAIN GATE															
	P-430	UPGRADE	\$1.5			х											
	P-431	NBC FACILITY	\$1.9														X
	P-427	GSE SHOP	\$5.7														X
		ORDNANCE															
	P-428	DISPOSAL FACILITY	\$3.0														х
	P-440	AIR EMBARK	\$3.2														x
	110	INDOOR FITNESS	<b>\$0.2</b>														~
	P-420	FACILITY	\$10.8														х
	P-027	MISSILE MAGAZINE	\$3.0					×									
	1-027	PROVOST	40.0					~									
		MARSHALL															
	P-126	FACILITY	\$4.9			Х											
	P-082	SATELLITE	\$5.7											х			
MCAS MIRAMAR	P-181	Hangar Mod	\$6.0											X			
	P-1//	wash Rack				_								X			
	P-180	WEST GATE	\$11.6											X			
	P-137	EXPANSION	\$5.4														Х
	P-164	COMBAT TRAINING	\$6.9														х
		LEGAL SERVICES															
	P-166	FACILITY	\$6.2														х

				F	Y05		-Y06		FY0 <sup>°</sup>	7		FY08			FY09		
LOCATION	PROJ #	TITLE	COST \$M	ENACTED	goj Funded	ENACT ED	goj Funded	PR-07	goj Funded	PROPOSED TO GOJ	POM-08	goj Funded	PROPOSED TO GOJ	PR-09	goj Funded	PROPOSED TO GOJ	PROPOSED TO MILCON PEG
PENDLETON BASE	P-199A	TOWER (HELO TRAINING)	\$3.5														х
	P-443	MESS HALL (AIRFIELD OBSTRUCTION)	\$12.5														х
QUANTICO BASE	P-545	MSGBN HQ & BEQ (AIRFIELD OBSTRUCTION)	\$27.1														Х

ENACTED	APPROVED BY CONGRESS
JFY05 GOJ FUNDED	APPROVED FOR FUNDING BY GOVERNIVENT OF JAPAN (GOJ) FOR DESIGN AND/OR CONDTRUCTION BEGINNING IN JAPANESE FY05
FY06 PRES BUD	CONTAINED IN THE FY06 PRESIDENTIAL BUDGET REQUEST. AWAITING CONGRESSIONAL APPROVAL
JFY06 GOJ FUNDED	APPROVED FOR FUNDING BY GOJ FOR DESIGN AND/OR CONDTRUCTION BEGINNING IN JAPANESE FY06
FY07 PR-07	CANDIDATE PROGRAM FOR PR-07 BUDGET SUBMISSION
JFY07 GOJ FUNDED	APPROVED FOR FUNDING BY GOJ FOR DESIGN AND/OR CONDTRUCTION BEGINNING IN JAPANESE FY07
JFY07 PROPOSED TO GOJ	PROJECTS SUBWITTED TO US FORCES JAPAN (USFJ) FOR GOJ FUNDING IN JFY07, BUT NOT YET APPROVED/FUNDED BY GOJ
JFY08 GOJ FUNDED	APPROVED FOR FUNDING BY GOJ FOR DESIGN AND/OR CONDTRUCTION BEGINNING IN JAPANESE FY08
JFY08 PROPOSED TO GOJ	PROJECTS SUBWITTED TO US FORCES JAPAN (USFJ) FOR GOJ FUNDING IN JFY08, BUT NOT YET APPROVED/FUNDED BY GOJ
JFY09 GOJ FUNDED	APPROVED FOR FUNDING BY GOJ FOR DESIGN AND/OR CONDTRUCTION BEGINNING IN JAPANESE FY09
JFY09 PROPOSED TO GOJ	PROJECTS SUBMITTED TO US FORCES JAPAN (USFJ) FOR GOJ FUNDING IN JFY09, BUT NOT YET APPROVED/FUNDED BY GOJ

FY08-09 PROPOSED TO MILCON PEG PROJECT SUBMITTED TO THE FACILITIES MILCON PROGAM EVALUATION GROUP (PEG) FOR EVALUATION & PRIORITIZATION IN THE FY08-09 BUDGET YEARS

# Section 14 --- AVPLAN Glossary of Terms and Acronyms

AVPLAN Glossary of Terms and Acronyms

14-2

AAB	Aviation Administrative and Security Support Branch
AC2	Aviation Command and Control
ACE	Aviation Combat Element
ADCON	Administrative Control
ADCP	Air Defense Communications Platform
ADR	Airfield Damage Repair
AETC	Air Force Education and Training Command
AMP	Aircraft Modernization Program
ANGB	Air National Guard Base
APC	Aviation Command and Control Branch, HQMC
APOLLO	AVPLAN editor, DSN 223-8439 for changes
APP	Aviation Plans, Programs, Doctrine, Budget and Joint Matters
APT	Aircrew Procedures Trainer
APW	Aviation Weapons Systems Requirements Branch
ARC	Aviation Refueling Capability
ASCO	Aviation Support Coordination Office
ASL	Aviation Logistics Support Branch
ASM	Aviation Manpower Support Branch
ASN	Air Support Node
ASN(A)	Air Support Node (Airborne)
ATC	Air Traffic Control
ATCO	Aviation Transportation Coordination Office
ATDS	Aircraft Tactical Display System
ATNAVICS	Air Traffic Navigation Integration Coordination System
ATS	Aviation Training System

AVPLAN	Aviation Plan
BKF	Buckley ANGB, Aurora, CO
BN	Battalion
C2/RTU	Command and Control/Remote Terminal Unit
CAC2S	Common Aviation Command and Control System
CCS	Command and Control Sub-system
CCSPFW	Common Contingency Support Package Fixed Wing
CCSPRW	Common Contingency Support Package Rotary Wing
CF	Camp Foster, Okinawa, Japan
CEF	Westover ANGB, MA
CFT	Cross Functional Team
СМС	Commandant of the Marine Corps
CNATRA	Chief of Naval Aviation Training
CNATT	Center for Naval Aviation Technical Training
CNATTMARU	Center for Naval Aviation Technical Training, Marine Unit
CQ	Carrier Qualification
CSG	Carrier Strike Group
CTN	Composite Tracking Network
CWAR	Continuous Wave Acquisition Radar
DASC	Direct Air Support Center
DASC(A)	Direct Air Support Center (Airborne)
DASC(AS)	Direct Air Support Center (Airborne System)
DC(A)	Deputy Commandant of the Marine Corps for Aviation
DC,CD&I	Deputy Commandant of the Marine Corps for Combat Development and Integration

DMN	FCTC Dam Neck, VA
DMRT	Deployable Mission Rehearsal Trainer
DOSS	Department of Safety and Standardization
DOTMLPF	Doctrine, Organization, Training, Material, Leadership, Personnel, and Facilities
EAF	Expeditionary Airfield
EDW	Edwards AFB, CA
EIS	Environmental Impact Statement
EMW	Expeditionary Maneuver Warfare
ESC	Executive Steering Committee
ESF	Expeditionary Strike Force
ESG	Expeditionary Strike Group
FEW	Warren AFB, Cheyenne, WY
FFS	Full Flight Simulator
FISP	Fly-in Support Package
FMS	Foreign Military Sales
FOS	Family of Systems
FOSP	Follow-On Support Package
FRC	Flat-Rack Refueling Capability
FRES	Fresno, CA
FRS	Fleet Replacement Squadron
FTD	Flight Training Device
FTS	Fort Sheridan, IL
FTU	Fixed Wing Training Unit
FYDP	Future Years Defense Plan

G/ATOR	Ground/Air Task Oriented Radar
GBAD	Ground Based Air Defense
GAR	Grade Adjusted Recapitulation
GCS	Ground Control Station
GMFP	Global Military Force Posture
HELRASR	Highly Expeditionary Long-Range Air Surveillance Radar
HMH	Marine Heavy Helicopter Squadron
HMLA	Marine Light/Attack Helicopter Squadron
HMM	Marine Medium Helicopter Squadron
HMT	Marine Helicopter Training Squadron
HMX-1	Marine Helicopter Squadron One
ILL	National Training Center Great Lakes, IL
IOC	Initial Operational Capability
IPT	Integrated Product Team
ISMO	Information Systems Management Office
JMATS	USAF KC-130J Maintenance and Aircrew Training System
JST	Joint Reserve Base Johnstown, PA
JRB	Joint Reserve Base
JSS	JICO Support System
LAAD	Low Altitude Air Defense
LVSR	Logistics Vehicle System Replacement
LVS	Logistics Vehicle System
MACCS	Marine Air Command and Control System
MACS	Marine Air Control Squadron
MACG	Marine Air Control Group

_	
MAG	Marine Aircraft Group
MAGTF	Marine Air Ground Task Force
MALS	Marine Aviation Logistics Squadron
MASS	Marine Air Support Squadron
MATCALS	Marine Air Traffic Control and Landing Facility
MATSS	Marine Aviation Training System Squadron
MAW	Marine Aircraft Wing
MAWTS	Marine Aviation Weapons and Tactics Squadron
MCAF	Marine Corps Air Facility
MCAS	Marine Corps Air Station
MCASMP	Marine Corps Aviation Simulation Master Plan
МСВ	Marine Corps Base
MCCVDb	Marine Corps Common Visual Database
МСМР	Marine Corps Master Plan
MEF	Marine Expeditionary Force
METMF-R	Meteorological Mobile Facility - Replacement
MEU	Marine Expeditionary Unit
MIN	Minneapolis, MN
MMF	Mobile Maintenance Facility
MROC	Marine Requirements Oversight Council
MRRS	Multi-Role Radar System
MOSLS	Minimum Operating Strip Lighting System
MPG	Maritime Prepositioning Group
M-SHARP	Marine Sierra Hotel Aviation Readiness Program
MTACS	Marine Tactical Air Command Squadron
MTC	Selfridge ANGB, MI

MTVR	Medium Tactical Vehicle Replacement
MWCS	Marine Wing Communications Squadron
MWHS	Marine Wing Headquarters Squadron
MWSG	Marine Wing Support Group
MWSS	Marine Wing Support Squadron
NALCOMIS	Naval Aviation Logistics Command Management Information System
NAV	Navigator
NBC	Marine Corps Air Station Beaufort, SC
NBG	Joint Reserve Base New Orleans, LA
NCQ	Naval Air Station Joint Reserve Base Atlanta, GA
NETC	Naval Education and Training Command
NFO	Naval Flight Officer
NFG	Marine Corps Air Station Camp Pendleton, CA
NFW	Joint Reserve Base Fort Worth, TX
NGU	Naval Air Station Norfolk, VA
NITES IV	Naval Integrated Tactical Environmental System IV
NJM	OLF Bogue Field, NC
NKT	Maine Corps Air Station Cherry Point, NC
NKX	Marine Corps Air Station Miramar, CA
NPDC	Naval Personnel Development Command
NSF	Navy / Andrews Air Force Base, MD
NXP	29 Palms Expeditionary Airfield
NXX	Naval Air Station Joint Reserve Base Willow Grove, PA
NYG	Marine Corps Air Field Quantico, VA
NYL	Marine Corps Air Station Yuma, AZ

OFT	Operational Flight Trainer
OLF	Outlying Field
OS/CS	Operations Sub-system/Communications Sub-system
PAS	Pasadena, CA
PCSP	Peculiar Contingency Support Package
PHNG	Marine Corps Air Field Kaneohe Bay, HI
РОМ	Program Objective Memorandum
POR	Program of Record
PR	Program Review
RJOI	Marine Corps Air Station Iwakuni, Japan
ROWPU	Reverse Osmosis Water Purification Unit
ROTM	Marine Corps Air Station Futenma, Okinawa, Japan
SAT	Systems Approach to Training
SCIF	Sensitive Compartmented Information Facility
SHORAD	Short-Range Air Defense
SHORCAL	Shore-Based Aviation Consolidated Allowance List
SWF	Stewart ANGB, NY
TACAN	Tactical Air Navigation
TAFDS	Tactical Airfield Fuel Dispensing System
ТАОМ	Tactical Air Operations Module
TBMCS	Theater Battle Management Core System
TECOM	Training and Education Command
TEN	Tactical Engagement Network
TOFT	Tactical Operational Flight Trainer

TRAM	Tractor, Rubber-tired, Articulated steering, Multi-purpose
TSA	Training Support Allowance
TTF	Transition Task Force
TWPS	Tactical Water Purification System
UOC	Unit Operations Center
UPT	Undergraduate Pilot Training
VMA	Marine Attack Squadron
VMAQ	Marine Electronic Attack Squadron
VMAT	Marine Attack Training Squadron
VMFA	Marine Fighter Attack Squadron
VMFA(AW)	Marine All-Weather Fighter Attack Squadron
VMFAT	Marine Fighter Attack Training Squadron
VMGR	Marine Aerial Refueler Transport Squadron
VMGRT	Marine Aerial Refueler Transport Training Squadron
VMM	Marine Tiltrotor Squadron
VMU	Marine Unmanned Aerial Vehicle Squadron
VMX	Marine Tiltrotor Test Squadron
VUAS	Vertical Unmanned Aircraft System
VXX	Presidential Helicopter Replacement Program
WPA	Wyoming, PA
WSO	Weapons Systems Officer
WST	Weapon System Trainer

