DEPLOYING THE AVIATION COMBAT ELEMENT

1. Introduction

The ACE is a logistically large organization that has significant personnel and equipment, which must be planned for and deployed. This lesson provides students with information on planning and deploying the ACE to the Marine pre-positioning force (MPF) theater.

2. MPF Aviation Assets

MPF aviation assets include combination of fixed-wing (FW) and rotary-wing (RW) type, model, and series of (T/M/S) aircraft that support both MPF force modules.

a. MPF Marine Expeditionary Unit (MEU) force module. The MEU-sized MPF ACE cannot perform electronic warfare (EW), has limited capability to control aircraft and missiles, and cannot support logistics and maintenance.

MEU Force Module

DET/UNIT	T/O	MO	ME	NO	NE
FIXED-WING, MAG	**SUBTOTAL**	**(11)**	**(130)**	**(0)**	**(1)**
DET,VMA(6 AV-8B)	8860	10	105	0	1
DET, MWSS(FW)	8702	1	25	0	0
ROTARY-WING, MAG	**SUBTOTAL**	**(71)**	**(557)**	**(3)**	**(19)**
HMM (12 CH-46E)	8940	32	156	1	3
DET, HMH (4 CH-53E)	8960	10	73	1	3
DET, HML/A (6 AH-1W/3 UH-1N)	8970	20	120	0	1
SPT ELE, MALS (RW)	8910	4	83	0	1
DET, MWSS (RW)	8703	5	125	1	11
MACG	**SUBTOTAL**	**(8)**	**(111)**	**(0)**	**(1)**
DET, MTACS	8620	2	4	0	1
DET, MWCS	8652	3	80	0	0
DET, MACS ATC	8633	1	4	0	0
DET, MASS	8660	1	4	0	0
SECT FIRG BTRY, LAAD	8964	1	19	0	0
ACE TOTAL	**(912)**	**(90)**	**(798)**	**(3)**	**(21)**

T/O – Table of organization
MO – Marine officer
ME – Marine enlisted
NO – Navy officer
NE – Navy enlisted

b. MPF MAGTF force module. This module can execute all six Marine aviation functions.

MPF MAGTF Force Module

DET/UNIT	T/O	NO	ME	NO	NO
ACE FWD	**SUBTOTAL**	**(74)**	**(122)**	**(4)**	**(3)**
FIXED-WING	**SUBTOTAL**	**(302)**	**(2715)**	**(20)**	**(67)**
HQ, MAG (FW)	8800	23	84	5	6
MALS (FW)	8810	26	325	1	3
VMGR (12 KC-130)	8820	49	315	1	3
2 x VMF/A (12 F/A-18)	8830	23	197	1	3
VMF/A (AW) (12 F/A-18D)	8840	42	218	1	3
VMA (20 AV-8B)	8860	36	295	1	3
VMAQ (5 EA-6B)	8880	34	218	1	3
MWSS (FW)	8702	31	686	7	37
ROTARY-WING	**SUBTOTAL**	**(273)**	**(2077)**	**(18)**	**(62)**
HQ, MAG (RW)	8900	23	86	5	6
MALS (RW)	8910	25	276	1	3
2 x HMM (12 CH-46E)	8940	32	156	1	3
HMH (8 CH-53D)	8950X	23	137	1	2
HMH (8 CH-53E)	8960	41	286	1	3
HML/A (18 AH-1W/9 UH-1N)	8970	67	378	1	4
MWSS (RW)	8703	30	602	7	38
MACG	**SUBTOTAL**	**(144)**	**(1370)**	**(5)**	**(20)**
MACS, DET		38	33	4	4
MTACS	8620	20	106	1	1
DET, MWCS	8652	8	250	0	0
MASS	8660	41	192	0	3
LAAM H&S BN	8682	9	185	0	1
3 x LAAM BTRY	8684	6	143	0	2
LAAD H&S BN	8692	5	37	0	2
LAAD BTRY	8694	5	138	0	3
ACE TOTAL	**(7276)**	**(793)**	**(6284)**	**(47)**	**(152)**

3. Planning Phase

Actions and decisions made during this phase are critical to force list development, flight ferry scheduling, en route support bases (ESBs), forward operating bases (FOBs), and determination of arrival assembly area (AAA). Major tasks to be accomplished are

a. Mission analysis

(1) What are the specified and implied tasks?
(2) What functions of Marine aviation apply?

b. Force list development

(1) Based on mission(s).

(2) Check the unit availability report to determine what VMFA, VMAQ, HMM, MACS, etc., squadrons should be deployed.

(3) Publish and distribute a force list with planning assumptions to affected units.

c. Identification of aerial port of embarkation (APOE) for helicopter breakdown

(1) Usually Marine Corps Air Station (MCAS) Cherry Point on the East Coast.

(2) CH-53D/E breakdown is significant (C-5 transportable only). Rotors, transmission, external antennae, wing stubs, and probe must be removed. The landing gear wheels must be removed and replaced with smaller ones in order to fit inside the C-5.

(3) CH-46E breakdown is moderate (C-5 transportable only). Rotor blades must be removed.

(4) AH-1W/UH-1N minor breakdown required when loading aboard C-5s.

C-5 Load Planning

Type Aircraft	Number	Configuration
AH-1W	6	Reduced
UH-1N	5	Reduced
CH-46E	2	Reduced
CH-53D	2	Reduced
CH-53E	2	Reduced

d. Identification of FW/RW and MACG employment sites

(1) Separate FW and RW operations are desirable if employing the MPF MAGTF force module because of the number of aircraft involved—the number of which usually precludes their joint operations at all but the largest airfields.

(2) MACG assets require a lot of high ground to prevent terrain masking of radar and firing units.

e. T-AVB employment

(1) The T-AVB is a CINC asset that must be requested.

(2) The T-AVB is not preloaded with equipment and supplies.

(3) It must be determined if the T-AVB will be used in the operational mode or as an administrative load-out (approximately 300 vans for operational, 600 for administrative). The T-AVB provides an intermediate maintenance activity (IMA) capability after O+30.

(4) A fly-in support package (FISP) will be brought into the theater to cover the first 30 days of maintenance and supply support. One C-141 equivalent per T/M/S aircraft deploying should be planned.

f. USAF tanker training. If deploying aircrew do not hold current tanking certification, they must get certified prior to beginning transoceanic flight movement.

g. Flight ferry planning

(1) The U.S. Air Force (USAF) schedules all flight ferry movement.

(2) The USAF is responsible for coordinating the following:

(a) Type tanking platform (KC-135 or KC-10).

(b) Number of Marine Corps aircraft in each movement cell.

(c) En route support bases (ESBs), air bases for the cells to remain overnight before continuing the next leg of the flight ferry mission.

(d) Divert fields and procedures.

(e) Search and rescue (SAR).

(f) Stragglers.

4. Marshalling Phase Tasks

a. Movement control

(1) Self-Deploying Aircraft Control Center (SDACC). The commanding general of the deploying Marine aircraft wing (MAW) forms the SDACC to coordinate the movement of Marine Corps tactical aircraft during movement. A movement control officer (MCO) is designated and exercises operational control of all Marine aircraft and ESB detachments during transoceanic flight operations.

(2) Unit Movement Coordination Cell (UMCC). The UMCC is established at the deploying squadron and battalion level to oversee their marshalling progress. The UMCC informs the Logistic and Movement Coordination Center (LMCC) of any changes to the marshalling plan. The unit movement coordination cell also operates a 24-hour watch bill.

(3) Embarkation Control Office (ECO). The ECO is established at the seaport of embarkation (SPOE) to support the T-AVB load-out. The ECO receives, inspects, and loads equipment, supplies, and personnel.

b. Tasks to be accomplished:

(1) The T-AVB load plan must be completed and approved by the ship's master.

(2) Air Mobility Command (AMC) does a "pull/push": they pull the first six days of movement requirements from the TPFDD and push back four days worth of scheduled flights. This information appears as the Echo-1 report within the deployment TPFDD Plan Identifier (PID). (There are two PIDs. One for deployment, and one for redeployment.)

(3) Based on the Echo-1 report, the MEF assigns the plane team commander responsibility to each mission number.

(4) Units assigned plane team commander responsibility must "manifest" unit line numbers (ULNs) from all units on that mission.

(5) The departure airfield control group (DACG) from LSB stands up at the APOE.

c. Flight ferry

(1) Movement cells are scheduled and published.

(2) Coordination with the ESBs begins. A message must be sent to the ESBs specifying required support (e.g., weapons storage, billeting, transportation, messing) and then deploy an advance team to set up and verify requirements. That team stays in place as each cell moves through, so there is continuity between the base and Marine units.

5. Movement Phase Tasks

a. SLRP deploys

(1) The airfield coordination officer (ACO) heads the ACE SLRP.

(2) Airfield checklists are filled out (OH 1-5-1 Tri-MEF SOP and MCWP 3-32 MPF Operations).

(3) The ACE portion of the concept for arrival and assembly is verified.

(4) ACO coordinates with the tanker airlift control element (TALCE) advanced echelon (ADVON) and arrival airfield control group (AACG) for airfield use plan.

(5) The SLRP lays out the arrival and assembly airfield (i.e., off-load ramp, holding area, and FW/RW operating areas).

b. T-AVB deploys

(1) The numbered fleet commander is responsible for the sea movement plan.

(2) The T-AVB is in IMA or administrative load-out mode.

c. En-route support bases (ESBs)

(1) Lead maintenance and ground crews deploy in advance of flight ferry.

(2) Flight ferry movement cells deploy.

(3) Trail maintenance crews follow flight ferry route and divert fields to fix broken aircraft.

6. Arrival and Assembly Phase Tasks

a. The ACE AAOE is established.

b. Helo rebuild begins (10 days for a CH-53E).

c. After rebuild, helos move to the employment base (if there is one).

d. Aircrew rest begins. Aircrew receive local flying briefs and conduct local area familiarization (FAM) flights.

e. MPSRON ships are off-loaded throughout this period.

f. The ACE AAOE makes receipt for MPE/Ss at the arrival assembly operations elements (AAOEs).

g. The ACE AAOE distributes ACE MPE/Ss to squadrons and battalions at ACE AAOE equipment reception points (ERPs).

h. Full operational status on MWSS and MACG must be attained to commence aviation operations.

8. Forward Operating Base/Expeditionary Airfield (EAF)

a. EAF footprint (96' x 5,184')

(1) 6,630 square-foot ship stowage requirement

(2) 238 containers per MPSRON are required to transport EAF (will be part of the MPF enhancement program). Currently:

(a) There is only enough AM-2 matting aboard MPSRON 2 to make a 96' x 900' expeditionary field suitable for helo and STOL/VSTOL operations. (30 containers aboard MPSRON 2 only!)

(b) No arresting gear is pre-positioned aboard MPSRONs.

b. Major EAF components

(1) Runway. Consists of aluminum AM-2 matting, which facilitates rapid runway repair.

(2) Arresting gear. The M-21 hydronamic braking system is designed to be "hooked" by the aircraft (not pre-positioned aboard MPSRON ships).

(3) Visual landing system. The visual landing system helps the pilot make a pinpoint landing relative to arresting gear (Fresnel lens/same as aboard carriers).

(4) Tactical airfield fuel dispensing system (TAFDS). Seven systems are placed aboard all MPSRONs. Each system holds 60,000 gallons and can hook up to either the Navy's assault amphibious bulk fuel system (AABFS) or the Engineer Support Battalion's AAFS.

(5) Helicopter expedient refueling system (HERS). Although not part of the EAF, the HERS does represent a refueling capability within the MWSS. Each MPSRON has eight systems that hold 6,000 gallons per system.

7. Marine Air Control Group (MACG) Considerations

The MACG is an equipment-intensive organization that requires many sorties to move items that are not pre-positioned aboard the MPSRONs. Depending on mission requirements, all the organizations listed in MCBul 3501 either may not be required or they may not need the full capability of a squadron or battalion. Often, airlift sortie constraints dictate how much of the MACG will be able to deploy.

8. Critical Low Density Principle End Items (PEIs)

PEIs are items that require frequent calibration or operations checks or that are too expensive to pre-position preclude positioning with an MPSRON.