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9 August 1999

From: Chief of Naval Operations (N889H)
To: Commander, Naval Air Systems Command (PMA205-4B2)
Subj: APPROVAL OF PROPOSED JOINT TRAINING SYSTEMS PLAN (JTSP)
FOR THE V-22 OSPREY, N88-JTSP-A-50-8412D/P
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(2) V-22 OSPREY Proposed JTSP A-50-8412D/P dtd Mar 1999

1. In accordance with the reference, enclosure (1) is approved and forwarded for distribution.
2. OPNAV point of contact is MGYSGT D. Anderson, N889H6, DSN 664-7722, comm (703)604-7722.

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From: Chief of Naval Operations (N889)
To: Distribution

Subj: V-22 OSPREY JOINT TRAINING SYSTEMS PLAN (JTSP), N88-NTSP-A-50-8412D/A

Ref: (a) OPNAVINST 1500.76

1. Subject JTSP is approved and forwarded per reference (a).
2. Subsequent JTSP reviews will examine both the effectiveness and efficiency of training outlined in this document.
3. OPNAV point of contact is MGSgt D.M. Anderson, N889H6, DSN 664-7722; Comm 703-604-7722.

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Subj: V-22 OSPREY JOINT TRAINING SYSTEMS PLAN (JTSP), N88-NTSP-A-50-8412D/A

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SNDL

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46B MARINE AIRCRAFT WING (CG SECOND MAW, CG THIRD MAW)
46P4 COMBAT CREW AND HELICOPTER TRAINING SQUADRON (HMT204)
FKA1A COMNAVAVIRSYSYSCOM (PMA205, PMA259, AIR 3.4.1)
FKR6A NAVAVIRWARCENACDIV (Patuxent River (SY55), Lakehurst)
FKR7C NAVAVIRTECHSERVFAC
FT1 CNET (ETE32, ETS, ETS24, OTE)
FT2 CNATRA
FT12 NAMTRAGRU (OA)
V5 MCAS (New River)
V12 CG MCCDC (C461A, C462)

HQ, United States Air Force (XOFU)
HQ, Air Education and Training Command (XORF, XOTS)
HQ, United States Special Operations Command (SOJ3-T)
HQ, Air Force Special Operations Command (LGMMT)

Enclosure (2)

APPROVED

JOINT TRAINING SYSTEM PLAN

FOR THE

V-22 OSPREY

N88-NTSP-A-50-8412D/A

AUGUST 1999

V-22 OSPREY

EXECUTIVE SUMMARY

This Joint Training System Plan (JTSP) has been developed to identify all services (United States Marine Corps, Air Force, and Navy) life-cycle manpower, personnel, and training requirements for the V-22 Osprey Aircraft. The CV-22 System Training Plan is the Air Force Special Operations Command planning document that serves as a companion to this JTSP, providing Air Force-specific information regarding the management of the CV-22 training system. This document is based upon POM 00 (post QDR 97) program profile – procuring 360 MV-22 aircraft and 50 CV-22 aircraft at a peak production rate of 30 MV and nine CV aircraft per year.

This JTSP contains all of the components included in a Navy Training Systems Plan (NTSP). As such, this JTSP can be considered a complete NTSP for the Marine Corps MV-22 and future Navy HV-22 aircraft. The Office of Primary Responsibility (OPR) for the JTSP is Office of the Chief of Naval Operations (OPNAV), Code N889. Follow-on minor administrative changes to this document will be approved by a V-22 Training Working Group, Executive Committee [PMA2052V, HQMC (APP, ASM, APW), N889H3, AETC, MCCDC (C-462A), AF/XO, and SOOP-CJ].

The V-22 “Osprey” Program is a Department of the Navy program responsible for developing, testing, evaluating, procuring, and fielding a tilt-rotor, vertical takeoff and landing aircraft for Joint Service application. The V-22 will provide the Navy, Air Force, and Marine Corps with a multi-engine, dual piloted, self-deployable, medium lift, Vertical Take-Off and Landing aircraft to be used to conduct combat, combat support, combat service support, and special operations missions worldwide. The V-22 is in the Engineering and Manufacturing Development phase of the weapon system acquisition process.

The V-22 Program is tasked to provide an aircraft to accomplish the Marine Corps’ amphibious and vertical assault missions; the Navy’s fleet combat support and strike rescue missions; and the United States Special Operations Command (USSOCOM) long-range Special Operations Force (SOF) support missions. The V-22 will replace the CH-46E and CH-53D helicopters in the Marine Corps; augment and replace yet to be determined aircraft in the Navy; replace USSOCOM’s MH-53J and MH-60G Helicopters; and reduce dependence on USSOCOM’s MC-130E/H fleet. The V-22 will be capable of flying over 2100 nautical miles with one aerial refueling, giving the Services the advantage of a Vertical/Short Takeoff and Landing aircraft that can rapidly self-deploy to any location in the world.

Maintenance concepts for the V-22 Program will be based on the Navy and Marine Corp Service’s maintenance policies, which will be modified for each service application. The Navy and Marine Corps will use the Naval Aviation Maintenance Program, OPNAV Instruction 4790.2 Series, which details a three-level maintenance concept; organizational, intermediate, and depot.

V-22 OSPREY

Interim contractor maintenance support is planned until military organic support capability is reached by the various services.

Initial training for Developmental and Operational Test personnel from the Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, Maryland, and Multi-service Operational Test Team will be conducted at the contractor's facilities, and at NAWCAD, Patuxent River. Initial training for fleet cadre personnel will be conducted at Marine Corps Air Station (MCAS) New River, North Carolina. Service and mission-unique training will be developed to support each service's unique mission requirements. Marine Medium Tilt-Rotor Training Squadron 204, MCAS New River, will be designated the Fleet Readiness Squadron for V-22 aircrew and the Fleet Replacement Enlisted Skills Training, for maintenance training. Air Force V-22 maintenance training will be provided at MCAS, New River. A CV-22 school within the 58 Special Operations Wing at Kirtland Air Force Base, Albuquerque, New Mexico will provide SOF peculiar aircrew training. A Memorandum of Agreement between the Services on training details exact relationships, responsibilities, training, and concepts of support.

Details on the Navy's V-22 program are not available and are not mentioned in this JTSP. As the information becomes available it will be included in this JTSP.

V-22 OSPREY

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LIST OF ACRONYMS

ACDU	Active Duty
AETC	Air Education and Training Command
AFB	Air Force Base
AFCS	Automatic Flight Control System
AFSC	Air Force Specialty Code
AFSOC	Air Force Special Operations Command
AFSOI	Air Force Special Operations Command Instruction
AFTMS	Air Force Training Management Systems
AMEGS	Aircraft Maintenance Event Ground Station
AMIST	Aviation Maintenance In-Service Training
AMTCS	Aviation Maintenance Training Continuum System
AOB	Average On Board
ATIR	Annual Training Input Requirement
BIT	Built-In Test
CANTRAC	Catalog of Navy Training Courses
CASS	Consolidated Automated Support System
CBT	Computer-Based Training
CCS	Contractor Curriculum Support
CFE	Contractor Furnished Equipment
CM	Corrective Maintenance
CMC	Commandant of the Marine Corps
CMPT	Cockpit Maintenance Procedures Trainer
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
CPT	Cockpit Procedures Trainer
CPTT	Cabin Part Task Trainer
CSAR	Combat Search and Rescue
CSI	Contractor Simulator Instructors
DoN	Department of the Navy
DT&E	Developmental Test and Evaluation
ECM	Electronic Countermeasures
EMD	Engineering and Manufacturing Development
ETS	Engineering and Technical Services
EUCOM	Europe Command

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LIST OF ACRONYMS

FAA	Federal Aviation Administration
FFS	Full Flight Simulator
FLIR	Forward Looking Infrared
FMS	Foreign Military Sales
FPT	Fleet Project Team
FREST	Fleet Replacement Enlisted Skills Training
FRS	Fleet Readiness Squadron
FTD	Flight Training Device
FY	Fiscal Year
GFE	Government Furnished Equipment
GPETE	General Purpose Electronic Test Equipment
GPTE	General Purpose Test Equipment
HM	Hospital Corpsman
HMH	Marine Heavy Helicopter Squadron
HMM	Marine Medium Helicopter Squadron
HMT	Marine Helicopter Training Squadron
HMX	Marine Experimental Helicopter Squadron
HQ	Headquarters
IETM	Interactive Electronic Technical Manual
IOC	Initial Operational Capability
IOT&E	Initial Operational Test and Evaluation
ITRO	Inter-service Training Review Organization
JILSP	Joint Integrated Logistics Support Plan
JORD	Joint Operational Requirements Document
JTSP	Joint Training System Plan
LHA	Amphibious Assault Ship (General Purpose)
LHD	Amphibious Assault Ship (Multi Purpose)
LSA	Logistics Support Analysis
MAG	Marine Aircraft Group
MALS	Marine Aviation Logistics Squadron
MATMEP	Maintenance Aviation Training Management and Evaluation Program
MCAF	Marine Corps Air Facility

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LIST OF ACRONYMS

MCAS	Marine Corps Air Station
MCCDC	Marine Corps Combat Development Command
MCO	Marine Corps Order
MER	Manpower Estimate Report
MFS	Manned Flight Simulator
MMH/FH	Maintenance Man-Hours per Flight Hour
MMR	Multi-Mode Radar
MOS	Military Occupational Specialty
MOTT	Multi-Service Operational Test Team
MSD	Material Support Date
MSP	Material Support Package
MTIP	Maintenance Training Improvement Program
MTSS	Mission Training Support System
NA	Not Applicable
NALCOMIS	Naval Aviation Logistics Command Management Information System
NAMP	Naval Aviation Maintenance Program
NAMTS	Naval Aviation Maintenance Trainer Suite
NAS	Naval Air Station
NATOPS	Naval Air Training and Operating Procedures Standardization
NAVAVNDEPOT	Naval Aviation Depot
NAVAIRSYSCOM	Naval Air Systems Command
NAVPERSCOM	Naval Personnel Command
NAWCAD	Naval Air Warfare Center, Aircraft Division
NEC	Navy Enlisted Classification
NTSP	Navy Training System Plan
NVG	Night Vision Goggles
OATMS	OPNAV Aviation Training Management System
OFT	Operational Flight Trainer
OJT	On-the-Job Training
OPEVAL	Operational Evaluation
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPO	OPNAV Principal Official
OPR	Office of Primary Responsibility
OT	Operational Test
OT&E	Operational Test and Evaluation

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LIST OF ACRONYMS

PACOM	Pacific Command
PFY	Previous Fiscal Year
PM	Preventive Maintenance
PMA	Program Manager, Air
PMOS	Primary Military Occupational Specialty
PNEC	Primary Navy Enlisted Classification
PTT	Part Task Trainer
RFT	Ready For Training
SELRES	Selected Reserve
SMOS	Secondary Military Occupational Specialty
SNEC	Secondary Navy Enlisted Classification
SOF	Special Operations Forces
SOW	Special Operations Wing
SPETE	Special Electronic Test Equipment
SPTE	Special Test Equipment
SRA	Shop Replaceable Assembly
ST	Special Tool
STP	System Training Plan
TAR	Training and Administration of Reserves
TBD	To Be Determined
TD	Training Device
TDRD	Training Device Requirements Document
TFS	Total Force Structure
T/O	Table of Organization
TTE	Technical Training Equipment
UIC	Unit Identification Code
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
USSOCOM	United States Special Operations Command
VMM	Marine Medium Tilt-Rotor Squadron
VMMT	Marine Medium Tilt-Rotor Training Squadron

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LIST OF ACRONYMS

WRA
WSPD

Weapon Replaceable Assembly
Weapon System Planning Document

V-22 OSPREY

PREFACE

This Approved Joint Training System Plan (JTSP) supersedes the Proposed Joint Training System Plan, A-50-8412D/D, dated March 1999. It has been updated to comply with guidelines set forth in the Navy Training Requirements Documentation Manual and was developed per the Office of the Chief of Naval Operations Instruction (OPNAVINST) 1500.76 to identify Manpower, Personnel, and Training requirements.

The JTSP provides a summary of resources and processes planned to successfully train personnel to operate and support the V-22 Osprey weapon system. It is a living document, subject to multiple revisions as the V-22 program evolves. Separate requirements documents such as the Joint Operational Requirements Document (JORD), Training Devices Requirements Document (TDRD), Weapon System Planning Document (WSPD), and other force planning documents provide the controlling authority for the information summarized here. Changes to these documents will necessitate changes to this JTSP. Successive updates and revisions to this JTSP represent a meaningful planning exercise for the successful fielding of the V-22 Osprey. Details on the Navy's V-22 program are not available and are not addressed in this JTSP. Navy information will be included in this JTSP as it becomes available.

Core components of this JTSP, when combined with the United States Air Force (USAF) CV-22 System Training Plan (STP), provide necessary training planning for the Air Force CV-22 Aircraft. The Office of Primary Responsibility (OPR) for the CV-22 STP is Air Force Special Operations Command / Director of Training (AFSOC/DOT). Specific changes to this JTSP are as follows:

The Fleet Replacement Enlisted Skills Training (FREST), a companion to the Fleet Readiness Squadron (FRS) Marine Medium Tilt-rotor Training Squadron (VMMT)-204 will be the model manager and training site for inter-service training at Marine Corps Air Station (MCAS), New River, North Carolina. "A" School core and strand training requirements for the United States Marine Corps (USMC) and skills training requirements for the USAF have been identified. Follow-on maintenance training is being developed.

An updated description of Full Flight Simulator (FFS) and Flight Training Device (FTD) simulator acquisitions is included in this JTSP.

Parts II and III of this JTSP have been updated to reflect the most current manpower and training requirements indicated in the latest V-22 USMC Tables of Organization (T/Os), USAF student throughput requirements, and newly established maintenance training courses. Part VII has been updated to reflect the current V-22 Osprey Program points of contact.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. V-22 Osprey

2. Program Element

Department of the Navy (DoN)..... 64262N
United States Air Force (USAF) 41318
United States Special Operations Command (USSOCOM) 116404

B. SECURITY CLASSIFICATION. Classification of V-22 characteristics performance, capabilities, systems, and subsystem equipment is defined in the MV-22 Security Classification Guide, dated 16 June 98. This JTSP is Unclassified.

- 1. System Characteristics** Unclassified
- 2. Capabilities** Unclassified
- 3. Functions**..... Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor..... CNO (N88)
SAF/AQQU
HQ SOCOM SOAL-FW

OPO Resource Sponsor CNO (N889)

Marine Corps Program Sponsor..... CMC (APW-52)

Developing Agency..... NAVAIRSYSCOM (PMA275)

Training AgencyMCCDC (C53)
CNET
HQ USAF
HQ AETC
HQ AFSOC

Training Support Agency NAVAIRSYSCOM (PMA205)

Manpower and Personnel Mission Sponsor	CNO (N12) NAVPERSCOM (PERS-4, PERS-404) CMC (ASM) HQ AETC/XPM HQ AFSOC/XPM
Director of Naval Training	CNO (N7)
Marine Corps Combat Development Command Manpower Management	MCCDC (TFS Division)

D. SYSTEM DESCRIPTION

1. Operational Uses. The V-22 Osprey Program consists of a Joint Multi-Mission Vertical Lift Aircraft that provides the USMC, Headquarters USSOCOM, USAF, and the United States Navy (USN) with a multi-engine, dual piloted, self-deployable, medium lift, vertical take-off and landing aircraft to be used to conduct combat, combat support, combat service support, and special operations missions worldwide. Missions include, but are not limited to, amphibious assault, land assault, raid operations, medium cargo lift, Combat Search and Rescue (CSAR), and Special Operations Force (SOF) support. The aircraft (MV-22 for the USMC, CV-22 for USSOCOM, and HV-22 for the USN) are capable of conducting operations in adverse weather, during daylight hours or at night, in climates from arctic to tropical from aviation and air capable ships (primary operating and support sea bases are Amphibious Assault (General Purpose) (LHA) and Amphibious Assault (Multi Purpose) (LHD) class ships, or from improved and unimproved landing sites ashore; and in a variety of conventional, unconventional, and contingency combat situations including Chemical, Biological, and Radiological warfare conditions. An air refueling capability will extend the aircraft's combat mission range when required, and it will be self-supporting to the maximum extent possible.

2. Foreign Military Sales. Currently, there are no cooperative development or Foreign Military Sales (FMS) programs established. FMS will be addressed as required and incorporated into future updates to this JTSP.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST. Developmental Test and Evaluation (DT&E) is being conducted and managed by the Rotary Wing Test Directorate, Naval Air Warfare Center Aircraft Division (NAWCAD), Patuxent River, Maryland, using an Integrated Test Team comprised of Bell-Boeing and Government personnel. Operational Test and Evaluation (OT&E) is being conducted by Marine Helicopter Squadron One (HMX-1) Multi-Service Operational Test Team (MOTT) and monitored by the Commander, Operational Test and Evaluation Force (COMOPTVFOR), Norfolk, Virginia. The MOTT consists of selected aircrew and engineering personnel from the Marine Corps and Air Force who have received V-22 factory training. Current planning is for the V-22 Operational Evaluation (OPEVAL) to be performed at Marine Corps Air Facility (MCAF) Quantico, Virginia, and multiple sites throughout

the United States, and the CV-22 Unique Initial Operational Test and Evaluation (IOT&E) to be performed at Kirtland Air Force Base (AFB), Albuquerque, New Mexico.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The V-22 will replace the CH-46E and CH-53A/D helicopters in the Marine Corps; replace USSOCOM's MH-53J and MH-60G helicopters; and supplement USSOCOM's MC-130E/H fleet. CSAR requirements of the USN by the HV-22 variant will augment and replace an as yet to be determined (TBD) aircraft.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The V-22 is a dual-piloted, twin engine, medium-lift, tilt-rotor aircraft that combines the speed, range, and fuel efficiency of a turboprop aircraft with the slow flight and hover capabilities of a helicopter. Its design incorporates advanced, but mature technologies in composite materials, fly-by-wire flight controls, digital cockpits, survivability, airfoil design, and manufacturing.

The V-22 fuselage has a number of advanced composite structures. A rear loading ramp has been incorporated, which when closed, comprises the lower portion of the aft fuselage section. There is one side-entry personnel door.

The V-22 power plant (designated T406-AE-1107), auxiliary internal fuel capacity, and an aerial refueling capability give the V-22 the ability to self-deploy worldwide. Changes necessary to convert the basic assault troop transport configuration for other missions will be simple and easily accomplished by organizational level maintenance personnel in field and shipboard environments.

2. Physical Description. The MV-22B configuration aircraft serves as the baseline design. The CV-22 configuration will include additional wing fuel tanks, a Terrain Following/Terrain Avoidance radar, and enhanced avionics packages to satisfy SOF specific mission requirements. A complete description of V-22 systems and subsystems is provided in the V-22 Detail Specification (SD-572-1, Rev. C) and Appendices.

V-22 AIRCRAFT PHYSICAL CHARACTERISTICS

Weight (in pounds)	33,140 (Empty)
	60,500 (Maximum Take-Off)
Length	57 feet 4 inches
Height.....	22 feet 1 inch
Fuselage Width	15 feet 3 inches
Total Tilt-rotor Span.....	84 feet 7 inches
Individual Tilt-rotor Diameter	38 feet 1 inch

3. New Development Introduction. The V-22 Osprey will be introduced as new production aircraft to replace designated aircraft at existing operating activities.

The Marine Corps will employ a phased strategy for the transition of the Marine Corps Medium Lift fleet to the MV-22 aircraft. Twenty-two CH-46E/CH-53D squadrons will transition to the MV-22 aircraft (18 active and four reserve). Upon transition, each squadron will maintain an aircraft inventory (Primary Aircraft Authorized (PAA)) of 12 aircraft. The estimated time-to-train for a squadron transitioning to the MV-22 aircraft is approximately 24-30 months (Stand-down, Transition, Post-Transition, Pre-Deployment Training).

4. Significant Interfaces. Not Applicable (NA)

5. New Features, Configurations, or Material. The V-22 is the first tilt-rotor aircraft to be fielded in the military. It is a hybrid aircraft, combining selected capabilities of an airplane and a helicopter. The Federal Aviation Administration (FAA) has classified tilt rotors as powered lift aircraft, neither airplane nor rotorcraft. The V-22 uses many unique items to achieve its configuration and capability. The airframe incorporates new materials and structural designs. Advanced avionics provide mission enhancement while new wiring technologies increase reliability and reduce weight. New hydraulic technology is also applied. Redundant digital systems such as fly-by-wire flight controls are used in lieu of traditional hybrid redundancies. New processes are applied in the operation and maintenance of the V-22. Examples include the mission planning station used by aircrew before flight, and the maintenance station used between flights to automatically identify defects and conduct trend analysis to predict future maintenance actions.

H. CONCEPTS

1. Operational Concept. The aircraft is manned by a pilot, copilot, and enlisted aircrew appropriate for the specific service and type of mission being flown. The V-22 is optimized to transport troops (i.e., 24 combat-equipped Marines, or 10,000 pounds of external cargo) to austere landing sites from aviation capable amphibious ships and expeditionary forward operating bases ashore.

2. Maintenance Concept. The maintenance concept for the V-22 is based on a Logistics Support Analysis (LSA) of the aircraft's maintainability, life-cycle cost, maintenance engineering, and logistics support requirements. The Naval Aviation Maintenance Program (NAMP), OPNAVINST 4790.2G, and Air Force Special Operations Command Instruction (AFSOCI) 21-106 provide general guidance regarding the various services' maintenance concepts. For the Navy and Marine Corps, the NAMP details three levels of maintenance (organizational, intermediate, and depot) and provides an organizational structure to collect supporting data.

The Air Force will use a two-level (organizational and depot) maintenance concept for avionics and engines. The remainder will be maintained through three levels of maintenance. During DT&E, maintenance and logistics support is the responsibility of the contractor, Bell-

Boeing. During OT&E, organizational maintenance will be performed by factory trained personnel from the MOTT. The contractor will provide intermediate maintenance support.

a. Organizational. Operating units normally perform organizational level maintenance actions on a day-to-day basis in support of its own mission. These actions are generally classified as Preventive Maintenance (PM) and Corrective Maintenance (CM). The T406-AD-400 engine will be maintained under a commercial two-level maintenance concept where the contractor (Allison Engine) provides for all aircraft maintenance beyond the organizational level at Allison repair centers. The Navy, Marine Corps, and Air Force will only be responsible for performing T406-AD-400 engine organizational level maintenance.

(1) Preventive Maintenance. PM consists of periodic prescribed inspections and servicing of the aircraft, systems, and subsystems as detailed in the aircraft's Maintenance Requirement Cards and Maintenance Plan.

(2) Corrective Maintenance. CM is performed by organizational level maintenance personnel using Built-In-Test (BIT), Peculiar Support Equipment (PSE), and Common Support Equipment (CSE) to fault isolate defective Weapon Replaceable Assemblies (WRA) and Line Replaceable Units. CM includes repairs to powerplants, airframes, aircraft wiring, and connectors. Defective WRAs are forwarded to the Intermediate Maintenance Activity for repair.

b. Intermediate. Intermediate level maintenance actions are those performed in support of user activities that are beyond the capabilities of organizational level maintenance. These actions include test, repair, calibration, and modification of aeronautical equipment; repair and calibration of support equipment; and disposition of assets from stricken aircraft. Intermediate level maintenance will be performed to verify faulty WRAs and isolate to a faulty Shop Replaceable Assembly (SRA), or component, using the appropriate test equipment. The faulty SRA will be removed, repaired, and replaced, and WRA performance verified by the appropriate test equipment. Depending on the system involved, the Air Force will perform some of these maintenance tasks at the organizational, or depot level, to support the two-level maintenance concept.

c. Depot. Depot level maintenance actions normally require repair, major overhaul, or a complete rebuilding, manufacture, or modification of parts, assemblies, sub-assemblies, and end items beyond the capabilities of intermediate level maintenance. Naval Aviation Depot (NAVAVNDEPOT) MCAS Cherry Point, North Carolina, is planned be the depot repair site for all Marine Corps and Air Force V-22 aircraft (less engines). The depot for Navy has not yet been determined.

d. Interim Maintenance

(1) Phased Support Concept. Maintenance responsibility under the phased support concept is a joint services-contractor effort until the V-22 systems demonstrate the level of reliability required for complete organic support. Early organic capability will be

established for systems demonstrating acceptable reliability, maintainability, and supportability. This concept will be in effect until the full Material Support Date (MSD) of June 2004 is achieved. The Organic Support Dates for the Marine Corps and Air Force are TBD.

(2) Sources of Technical Support. The Marine Corps will have crash damage depot repair capabilities at NAVAVNDEPOT, MCAS Cherry Point, North Carolina. The planned Government Support Date for the V-22 is 2005. Engineering and Technical Services (ETS) will provide all required technical assistance until the Government Support Date. ETS will also provide required technical assistance for the Air Force.

e. Life-Cycle Maintenance Plan. The V-22 has a minimum service life of 20 years and contains diagnostics using automatic, semi-automatic, and manual means. It is the first military aircraft to use the Aircraft Maintenance Event Ground Station (AMEGS). AMEGS is a maintenance data system that uses downloaded data from a data storage system in the aircraft as input to the Naval Aviation Logistics Command Management Information System (NALCOMIS) and the Core Automated Maintenance System for the purpose of immediate identification and assessment of aircraft discrepancies. AMEGS is government furnished and will be assessed for workability and reliability from the standpoint of the V-22 Weapon System. AMEGS capabilities and requirements along with its planned integration with NALCOMIS Phase III will be evaluated.

3. Manning Concept. Navy and Marine Corps qualitative and quantitative manpower requirements for the operation and support of the V-22 weapon system were developed using LSA under an Engineering and Manufacturing Development (EMD) contract per Chapter 4 of ILS-DS-30A-202, Revision C. Maintenance manpower requirements were generated by the contractor using LSA data and Maintenance and Material Management data from comparable aircraft systems (CH-46E Aircraft). Particular JORD requirements for the V-22 include specific manpower structure to operate and maintain the aircraft over a period of time in a developed workload mode. T/Os have been developed for the MV-22 based on a 12 aircraft operating squadron and one 40 aircraft training squadron (VMMT-204). For detailed information on Marine Corps manpower, refer to Element II.A.1.b of this JTSP.

The Air Force manpower requirements will also be derived using the LSA during EMD. Air Force requirements will be based on target labor analysis and target labor hours per flying hour. Standard Air Force skills (levels 9, 7, 5 and 3) will be used. The aircraft will be operationally maintained by level three and five personnel. For information concerning Air Force manpower requirements, refer to the V-22 Manpower Estimate Report (MER) dated 17 June 1996.

Note: Manpower requirements for the Navy are still in the planning stages. Information concerning the requirements for the development of squadron manpower documents and newly established Navy Enlisted Classifications (NECs) will be included in this JTSP when it becomes available.

a. Aircrew Planning Factors. Marine Corps aircrew manpower requirements were developed per OPNAVINST 5310.21 and are based on the number of aircraft, flight hours

per aircraft per month, seat factors, and crew ratios. USAF manpower requirements were provided by the Air Force Personnel Center. Table I-1 provides a summary of aircrew configurations, manning factors, and their applicable Military Occupational Specialties (MOS). Table I-2 provides projected aircraft utilization rates.

**TABLE I-1. AIRCREW CONFIGURATIONS AND MANNING FACTORS
MARINE CORPS CREW CONFIGURATION**

POSITION	MOS	CREW RATIO	SEAT FACTOR
Pilot	7532	1.2	1
Copilot	7532	1.2	1
Crew chief	6175	1.6	1

AIR FORCE CREW CONFIGURATION

POSITION	MOS	CREW RATIO	SEAT FACTOR
Pilot	11SYX	2.0	1
Copilot	11SYX	2.0	1
Flight Engineer	1A1X1B	2.0	2

TABLE I-2. PROJECTED AIRCRAFT UTILIZATION

ACTIVITY	AIRCRAFT PER ACTIVITY	AVERAGE SORTIE LENGTH
MV-22 (USMC)	12	3.0
CV-22 (USAF)	7	5.0
VMMT-204	12 to 40	2.0

b. Maintenance Manpower Planning Factors. Marine Corps maintenance manpower requirements are based on the total Maintenance Man-Hours per Flight Hour (MMH/FH), number of maintenance working shifts, and standard workweek calculations for a deployed duty activity. Refer to the CV-22 System Training Plan for Air Force manpower planning factors. Tables I-3 and I-4 show organizational and intermediate MOSs, and the USAF equivalent Air Force Specialty Codes (AFSC) by applicable work centers.

TABLE I-3. ESTIMATED ORGANIZATIONAL MAINTENANCE

WORK CENTER	MOS	AFSC	MMH/FH**
110	6115*	2A6X1B, 2A6X4	3.99
12A	6155	2A7X3, 2A7X1	1.60
12B	6155	2A6X5	0.85
12C	6155	2A7X2	0.56
13A	6060	2A7X4	0.02
13B	6086	1T1X1, 2A6X6	0.38
210	6325	2A3X2	0.52

WORK CENTER	MOS	AFSC	MMH/FH**
220	6325	2A6X6	1.28
230	6531	2W1X1	0.26
310	6072, 6175	2A5X2	1.26
		Total MMH/FH	10.72

* USMC line mechanic personnel (MOS 6115) are normally assigned to Work Center 310, but are shown here in Work Center 110 for clarity in tracking training.

** MMH/FH is based on an early sampling of information and is subject to change as new information becomes available.

TABLE I-4. ESTIMATED INTERMEDIATE MAINTENANCE

WORK CENTER	MOS	AFSC*	MMH/FH**
410	6125*		0.38
440	6132		1.00
510	6092		0.43
520	6094		0.72
530	6092, 6044		0.02
610	6413	2A1X0	0.99
620	6433		1.24
640	6483		0.86
810	6060		0.06

* The Air force does not have specific AFSCs for intermediate level maintenance.

** MMH/FH is based on an early sampling of information and is subject to change as new information becomes available.

c. Enlisted Maintenance Instructor Manpower Requirements. Enlisted maintenance instructor requirements for VMMT-204 FREST at the organizational level are based on the methodology contained in the Inter-service Training Review Organization (ITRO). Initial enlisted instructor requirements are shown in Element II.A.3 of this JTSP.

Air Force instructor requirements. [Have not yet been fully determined (Inter-service training guidance indicates USAF will provide a *fair share* instructor presence). When information becomes available, it will be included in future updates to this document.] Table I-5 depicts a list of Air Force instructor AFSCs. These AFSCs are pending approval and will be included in the Air Force CV-22 STP.

TABLE I-5. USAF INSTRUCTOR REQUIREMENTS

AFSC	TITLE
T2A6X1B	Aerospace, Turboprop, and Turboshaft Propulsion (Engines)
T2A6X5	Aircraft Pneudraulics
T2A3X2 / T2A3X2B	Avionics Systems, Instrument and Flight Control Systems, Communication, Navigation and Penetration Aids Systems [O-level ECM] Aircraft Instrument and Guidance Systems
T2A5X2	Crew Chief
T2A6X6	Aircraft Electrical and Environmental Systems

d. Fleet Project Team. A Fleet Project Team (FPT) has been established to assist and advise in the development of the operator and maintainer training systems. The FPT is composed of knowledgeable representatives from user and non-user activities consisting of DoN, USAF, and USMC qualified military and civilian personnel per OPNAVINST 5000.50A and the CV-22 STP.

4. Training Concept. The contractor, Bell-Boeing, has developed a training program using the MV-22B as the baseline. Training courses have been designed in modules to provide the opportunity to select which courses, or portions of courses, best meet training requirements (based upon service unique missions, student entry levels, prior experience, etc.). Service-specific training not included in the modular "core" training will be developed at a later date to fulfill those requirements. V-22 training for the Selected Reserve (SELRES) is undetermined. As SELRES training requirements are identified, they will be included in updates to this JTSP.

The Marine Corps plans to implement a Mission Training Support System (MTSS) to provide follow-on support for the V-22 operator and maintenance training program. All functions of simulator support (simulator and academic instruction; maintenance and operation; curriculum and supply support; and auxiliary management) will be integrated into one contract. Under this concept, the contractor will be responsible for:

- **Contractor Operation and Maintenance of Simulators.** Contractor Operation and Maintenance of Simulators will ensure all V-22 primary training devices are maintained and operationally available 16 hours a day, five days a week, 50 weeks a year. These training devices include the Operational Flight Trainer (OFT), Cockpit Procedures Trainer (CPT), Naval Aviation Maintenance Trainer Suite (NAMTS), Full Flight Simulator (FFS), and the Flight Training Device (FTD).

- **Contractor Simulator Instruction.** Contractor Simulator Instruction will be required at VMMT-204 FRS, MCAS New River. This requirement for instruction will begin with the training of the VMMT-204 Instructor Pilot Cadre. Contractor Simulator Instructors (CSI) will provide simulator instruction in the OFT, CPT, FFS and FTD. This training is expected to begin in June 1999, upon acceptance of the V-22 OFT/CPT update program (converting devices

from MV-22A to MV-22B configuration) at MCAS, New River. The CSIs will conduct briefings, debriefings, and syllabus flights, and evaluate pilot performance. Once the instructor cadre is trained, CSIs will instruct all simulator training and replacement events in support of VMMT-204. This training will include initial aircrew training, transition/conversion training, refresher training, as well as follow-on instructor training. After completing an established CSI training and mobilization period, CSIs will be certified by the model manager. CSIs will be required to attend VMMT-204 Instructor Standardization meetings, Air Force requirements lectures, complete semi-annual standardization evaluations, and complete annual Naval Air Training and Operating Procedures Standardization (NATOPS) and Instrument checks in the simulator to remain certified.

- **Contractor Curriculum Support.** Contractor Curriculum Support (CCS) will be required to maintain, update, and revise curriculum and instructional standards. CCS will:

- Manage changes and revisions to existing curriculum
- Assist in the development of new curriculum
- Maintain quality assurance
- Establish, monitor, and regulate evaluation programs
- Ensure instructor currency

- **Contractor Supply Support.** Contractor supply support will provide for the repair, replacement, and upkeep of the training system Material Support Package (MSP). The MSP will be used to support trainer operation and maintenance as specified under MTSS. The contractor will provide for the repair and replenishment of all simulator and trainer peculiar items, as well as bit piece parts. The government will provide any aircraft common equipment and parts through the government military supply system.

- **Management and Auxiliary Support.** Management and auxiliary support will provide a contractor site representative, clerical assistance, janitorial services, and facility access control at each simulator and trainer site. The contractor, under the supervision of Naval Air Warfare Center, Training Support Division (In-Service Engineering Office - ISEO), will provide trainer software support at MCAS New River.

- **Training in Support of Engineering and Manufacturing Development.** During EMD, the contractor provides factory training at contractor and government facilities to coincide with the needs of the V-22 Flight Test schedule. Organizational level training is being developed and will be taught by Bell-Boeing. Training for Developmental Test (DT) and Operational Test (OT) pilots will be facilitated by using the Manned Flight Simulator (MFS) located at NAWCAD, Patuxent River. DT&E is expected to be completed in fourth quarter Fiscal Year (FY)99. MV-22B OPEVAL is scheduled for completion in 2000. CV-22 IOT&E is scheduled for 2001-2002.

- a. **Initial Training.** The first squadron to receive MV-22B Aircraft will be VMMT-204. Aircrew and maintenance cadre training is currently scheduled to begin in FY00.

After the cadre has received training and sufficient aircraft arrive, training of the remainder of VMMT-204 will begin. Navy initial training has not yet been determined.

Title V-22 Pilot Ground School / Pilot Ground School Basic / Pilot Ground School Refresher Course (OT-IIE)

Description This course provides Pilot Ground School, Pilot Ground School Basic, and Pilot Ground School Refresher (as required) training with the objective to provide government selected military pilots with the classroom training required to safely and effectively operate the V-22 aircraft as pilot in command under EMD#4 (OPEVAL) test mission conditions.

Location NAWCAD Patuxent River

Length 17 days

RFT date March 1999 (completed)

TTE/TD V-22 Aircraft and V-22 MFS

Prerequisites Journeyman level during EMD; Helicopter Aircraft Commander with fixed wing experience; previous functional check pilot experience desired.

Title V-22 Pilot Ground School / Pilot Ground School Basic / Pilot Ground School Refresher Course (CV Ship 9)

Description This course provides Pilot Ground School, Pilot Ground School Basic, and Pilot Ground School Refresher (as required) training with the objective to provide government selected military pilots with the classroom training required to safely and effectively operate the V-22 aircraft as pilot in command under CV Delta #1 test mission conditions.

Location NAWCAD Patuxent River

Length 17 days

RFT date June 1999

TTE/TD V-22 Aircraft and V-22 MFS

Prerequisites Journeyman level during EMD; Helicopter Aircraft Commander with fixed wing experience; previous functional check pilot experience desired.

Title **V-22 Pilot Flight Training**

Description The objective of this course is to provide selected aviators with the skills and knowledge to safely and effectively operate the V-22 aircraft as pilot in command under EMD test mission conditions.

Location NAWCAD Patuxent River

Length 3 days

RFT date March 1999 and June 1999

TTE/TD V-22 Aircraft and V-22 MFS

Prerequisites Journeyman level during EMD; Graduate of V-22 Pilot Ground School.

Title **V-22 Aircraft Familiarization Course**

Description This curriculum provides the maintenance technician with an overview of all aircraft systems including ground safety and operating procedures.

Location NAWCAD Patuxent River

Length 2 days

RFT date May 1999, July 1999, and July 1999

TTE/TD V-22 Aircraft

Prerequisites Journeyman level during EMD; Aircraft Maintenance Skill Specialties.

Title **V-22 Aircraft Aircrew Familiarization Course**

Description This curriculum provides selected USMC Crew Chief, USAF Crew Chief, and USAF Flight Engineer personnel with the training required to safely and effectively service aircraft systems, perform preflight, post-flight, turnaround, and daily inspections, and perform crewmember duties on the ground and during flight.

Location NAWCAD Patuxent River

Length 17 days, plus 20 hours flight training

RFT date July 1999

TTE/TD V-22 Aircraft

Prerequisites Journeyman level during EMD; C-600-2010, Basic Helicopter Class M1; V-22 Familiarization Course.

Title V-22 Power Plants and Related Systems Organizational Maintenance Course

Description The objective of this course is to provide selected USMC Helicopter Mechanic, USMC Crew Chief, USAF Aerospace Propulsion, USAF Aircraft Fuel System Technician, and USAF Crew Chief personnel with training required to safely and effectively perform maintenance and troubleshooting of the powerplant and related systems at the organizational maintenance level.

Location NAWCAD, Patuxent River

Length 33 days

RFT date June 1999 and July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization course.

Title V-22 Airframe Organizational Maintenance Course

Description The objective of this course is to provide USMC Airframes Mechanics, USAF Crew Chiefs, and USAF Structural Aircraft Maintenance Technicians with the training required to safely and effectively perform maintenance of the airframe at the organizational maintenance level.

Location NAWCAD Patuxent River

Length 13 days

RFT date June 1999 and July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course; and Organizational Composite Material Repair Course (TBD).

Title **V-22 Hydraulic Systems Organizational Maintenance**

Description The objective of this course is to provide USMC Airframe Mechanics, USAF Crew Chiefs, and USAF Pneudraulic System Technicians with the training required to safely and effectively perform maintenance and troubleshooting of the hydraulic systems at the organizational level.

Location NAWCAD Patuxent River

Length 12 days

RFT date June 1999 and July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title **V-22 Environmental Control System Organizational Maintenance Course**

Description The objective of this course is to provide USMC Flight Equipment Marine and USAF Electrical and Environmental personnel with the training required to safely and effectively perform maintenance and troubleshooting of the environmental control systems at the organizational level.

Location NAWCAD Patuxent River

Length 12 days

RFT date July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title **V-22 Communication / Navigation / Identification Organizational Maintenance Course**

Description The objective of this course is to provide USMC Aircraft Communications/Navigation/Electrical/Weapon Systems Technician and USAF Integrated Avionics maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the V-22 avionics systems at the organizational level.

Location NAWCAD Patuxent River

Length 19 days

RFT date May 1999 and July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course

Title **V-22 Radar and Forward Looking Infrared (FLIR) Organizational Maintenance Course**

Description The objective of this course is to provide USMC Aircraft Communications/Navigation/Electrical/Weapon Systems Technician and USAF Integrated Avionics maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the FLIR systems at the organizational level.

Location NAWCAD Patuxent River

Length 3 days

RFT date June 1999 and August 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title **V-22 Electronic Countermeasures (ECM)
Organizational Maintenance Course**

Description The objective of this course is to provide USMC Aircraft Communications/Navigation/Electrical/Weapon Systems Technician and USAF Integrated Avionics maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the ECM systems at the organizational level.

Location NAWCAD Patuxent River

Length 5 days

RFT date June 1999 and August 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title **V-22 Electrical System Organizational Level
Maintenance Course**

Description The objective of this course is to provide USMC Aircraft Communications/Navigation/Electrical/Weapon Systems Technician and USAF Electrical and Environmental maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the electrical systems at the organizational level.

Location NAWCAD Patuxent River

Length 19 days

RFT date May 1999 and July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title **V-22 Automatic Flight Control System (AFCS)
Organizational Maintenance Course**

Description The objective of this course is to provide USMC Aircraft Communications/Navigation/Electrical/Weapon Systems Technician and USAF Integrated Avionics Technician maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the AFCS systems at the organizational level.

Location NAWCAD Patuxent River

Length 19 days

RFT date June 1999 and July 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title **V-22 Cockpit Management and Display System
Organizational Maintenance Course**

Description The objective of this course is to provide USMC Aircraft Communications/Navigation/Electrical/Weapon Systems Technician and USAF Integrated Avionics Technician maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the cockpit management system at the organizational level.

Location NAWCAD Patuxent River

Length 12 days

RFT date May 1999 and June 1999

TTE/TD V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.

Prerequisites Journeyman level during EMD; V-22 Aircraft Familiarization Course.

Title	CV-22 Multi-Mode Radar (MMR) Maintenance Course
Description	The objective of this course is to provide the USAF Integrated Avionics Technician maintenance personnel with the training required to safely and effectively perform maintenance and troubleshooting of the MMR systems at the organizational level.
Location	NAWCAD Patuxent River
Length	5 days
RFT date	April 2000
TTE/TD	V-22 Aircraft and NAMTS. Refer to elements IV.A.1 and IV.A.2 for detailed information.
Prerequisites	Journeyman level during EMD; V-22 Aircraft Familiarization Course

b. Follow-on Training. Initially, USMC follow-on training will be conducted by VMMT-204 FRS, MCAS New River. All follow-on training for pilots and enlisted aircrew will be conducted per appropriate service directives. Pilot and Enlisted aircrew training has not been fully determined. For planning purposes the USMC will use a six-month training duration for pilots and enlisted aircrew; and it will be reevaluated once USMC students begin going through training. As information becomes available it will be included in this JTSP. Follow-on flight training will be based on a core MV-22B curriculum that will be followed by service-unique training (i.e., CSAR, Medical Evacuation, troop lift, and assault support). CV-22 SOF-unique aircrew training will be conducted at the 58 Special Operations Wing (SOW), Kirtland AFB, New Mexico, as set forth in the AFSOC CV-22 STP. V-22 Follow-on training will begin in third quarter FY01.

(1) Pilot Training. This training will be designed to provide aviators with the ability, skills, and knowledge to safely and effectively operate the V-22 aircraft as Pilot-In-Command and Functional Check Pilot during day/night Visual Meteorological Conditions. Training will consist of ground school instrument procedures training and flight training.

(2) USMC Enlisted Aircrew Training. Training will be conducted at VMMT-204 per the Training and Readiness Manual MCO 3500M.

(3) USAF Flight Engineer Training. Air Force flight engineer training at the inter-service school will follow the USMC Enlisted Aircrew Training. Follow-on CV-22 lead-in course will be conducted at Kirtland AFB. Further information is contained in the CV-22 STP.

(4) Maintenance Training. Maintenance training is currently being developed to provide personnel with the skills and knowledge required to safely and effectively detect, diagnose, and perform appropriate organizational corrective maintenance for problems that could be encountered during operational flight tests. The following is a list of proposed organizational level maintenance courses. (Note: Course lengths are notional, as curriculum development continues).

Title **V-22 Power Plants and Related Systems Organizational Maintenance**

CIN M-601-XXXX

Model Manager .. VM MT-204 FREST, MCAS New River, North Carolina

Description Trains newly assigned personnel in the function, operation, removal, and replacement of all major and minor components of the T406-AD-400 Turboshift engine prop-rotor and Auxiliary Power Unit.

Location VM MT-204 FREST, MCAS New River

Length 6115 (66 days), 2A6X1B (17 days), 8311 (66 days)

RFT date May 2001

Skill identifier MOS 6115, AFSC 2A6X1B, NEC 8311

TTE/TD NAMTS

Prerequisites C-601-2011, Aviation Machinist's Mate Common Core Class A1
C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1

Title **V-22 Airframes and Hydraulic Systems Organizational Maintenance**

CIN M-603-XXXX

Model Manager .. VM MT-204 FREST, MCAS New River

Description Trains airframe personnel to operate, troubleshoot, maintain, and repair the V-22 structures, hydraulics, and related systems.

Location VM MT-204 FREST, MCAS New River

Length 6155 (66 days), 2A5X2 (23 days), 8311 (66 days)

RFT date May 2001

Skill identifier MOS 6155, AFSC 2A5X2, NEC 8311

TTE/TD TBD
Prerequisites C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Organizational Level Strand Class A1, or equivalent USAF training, J3ABP2A635-001, Aircraft Pneudraulic System Apprentice

Title V-22 Avionics and Electrical Systems Organizational Maintenance

CIN M-602-XXX1
Model Manager .. VM MT-204 FREST, MCAS New River
Description Provides training to USN and USMC personnel in all aspects of V-22 Avionics and electrical systems.
Location VM MT-204 FREST, MCAS New River
Length 96 days
RFT date May 2001
Skill identifier MOS 6325, NEC 8311
TTE/TD TBD
Prerequisites C-100-2020, Avionics Common Core Class A1
C-602-2039, Aviation Electrician's Mate O Level Strand Class A1

Title V-22 Environmental and Electrical Systems Organizational Maintenance

CIN M-602-XXX2
Model Manager .. VM MT-204 FREST, MCAS New River
Description Trains USAF personnel to operate, troubleshoot, maintain, and repair V-22 electrical and environmental related systems
Location VM MT-204 FREST, MCAS New River
Length 44 days
RFT date May 2001
Skill identifier AFSC 2A6X6
TTE/TD NAMTS

Prerequisite..... USAF Course

Title **CV-22 Integrated Avionics Systems Organizational Maintenance**

CIN M-602-XXX3

Model Manager .. VM MT-204 FREST, MCAS New River

Description Provides training to USAF personnel in all aspects of CV-22 Communication, Navigation, Identification (CNI), Radar, and Countermeasures systems.

Location VM MT-204 FREST, MCAS New River

Length 89 days

RFT date May 2001

Skill identifier AFSC 2A3X2

TTE/TD NAMTS

Prerequisites J3AQR2A332-500, Electronics Principles
J3ABR2A332-002, Avionics Instrument and Flight Control
Apprentice
Secret Clearance

c. Student Profiles. The V-22 student profiles are as shown in the chart below:

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
MOS 6115	<ul style="list-style-type: none"> ° C-601-2011, Aviation Machinist's Mate Common Core Class A1 ° C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1
MOS 6325	<ul style="list-style-type: none"> ° C-100-2020, Avionics Common Core Class A1 ° C-100-2017, Avionics Technician I Level Class A1 ° C-602-2039, Aviation Electrician's Mate O Level Strand Class A1
MOS 6155	<ul style="list-style-type: none"> ° C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Common Core Class A1 ° C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Organizational Level Strand Class A1

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
MOS 6531	<ul style="list-style-type: none"> ◦ C-646-2011, Aviation Ordnanceman Common Core Class A1 ◦ C-646-2012, Aviation Ordnanceman Airwing Strand Class A1
MOS 6175	<ul style="list-style-type: none"> ◦ C-600-2010, Basic Helicopter Class M1 and Naval Aircrewman Candidate School ◦ MOS 6115
AFSC 1T1X1	◦ J3ABR1T131-001, Aircrew Life Support Apprentice
AFSC 2A3X2	<ul style="list-style-type: none"> ◦ J3AQR2A332-500, Electronic Principles ◦ J3ABR2A332-002, Avionics Instrument and Flight Control Apprentice
AFSC 2A5X2	<ul style="list-style-type: none"> ◦ J3AQP2A532-000, Helicopter Maintenance Fundamentals ◦ J3ABP2A532D-000, CV-22 Maintenance Apprentice
AFSC 2A6X1B	◦ J3ABPR2A631B-001, Turboprop/Turboshaft Propulsion
AFSC 2A6X2	◦ J3ABPR2A632-001, Aerospace Ground Equipment Apprentice
AFSC 2A6X3	◦ J3ABPR2A633-001, Aircrew Egress Systems Apprentice
AFSC 2A6X4	◦ J3ABPR2A634-001, Aircraft Fuels System Apprentice
AFSC 2A6X5	◦ J3ABPR2A635-001, Aircraft Pneudraulic Systems Apprentice
AFSC 2A6X6	◦ J3ABPR2A636-001, Electrical/Environmental Apprentice
AFSC 2A7X1	◦ J3ABP2A731-001, Aircraft Metals Technology Apprentice
AFSC 2A7X2	◦ J3ABP2A732-000, Nondestructive Inspection Apprentice
AFSC 2A7X3	◦ J3ABP2A733-000, Aircraft Structural Maintenance Apprentice
AFSC 2A7X4	◦ J3ABPR2A734-001, Fabrication and Parachute Apprentice

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
AFSC2W1X1	° J3ABPR2W131Z-003, Aircraft Armament Systems Apprentice

d. Training Pipelines. The proposed Marine Corps training tracks to support V-22 referenced in Part III of this JTSP are not currently in the Catalog of Navy Training Courses (CANTRAC) or the OPNAV Aviation Training Management System (OATMS). The Air Force enlisted maintenance training pipelines were taken from the CV-22 STP and the Air Force Catalog AFCAT 36-2223. Air Force attended courses will be enumerated in CANTRAC, OATMS, and the Air Force Training Management Systems (AFTMS). The following is a list of proposed training tracks and the courses incorporated in them for the V-22 aircraft:

TRAINING TRACK NUMBER	COURSE NUMBER AND TITLE
M-601-XXXX	<ul style="list-style-type: none"> • C-601-3626, V-22 Power Plants / Rotors and Related Organizational Maintenance • C-600-3180, Basic Mechanic
M-603-XXXX	<ul style="list-style-type: none"> • C-603-3626, V-22 Hydraulic Systems Organizational Maintenance • M-603-3627, V-22 Airframes Systems Organizational Maintenance
M-602-XXX1	<ul style="list-style-type: none"> • C-198-3626, V-22 Cockpit Management Display Systems • C-102-3627, V-22 Avionics Systems Organizational Maintenance • C-102-3626, V-22 Electrical Systems Organizational Maintenance • C-602-3626, V-22 Connector and Wiring Harness Repair / Manufacturing
M-602-XXX2	<ul style="list-style-type: none"> • C-602-3627, V-22 Environmental Control / Miscellaneous Utilities / Egress Systems Organizational Maintenance • C-102-3626, V-22 Electrical Systems Organizational Maintenance • C-602-3626, V-22 Connector and Wiring Harness Repair / Manufacturing
M-602-XXX3	<ul style="list-style-type: none"> • C-198-3626, V-22 Cockpit Management Display Systems • C-102-3626, V-22 Electrical Systems Organizational Maintenance • C-602-3626, V-22 Connector and Wiring Harness Repair / Manufacturing

I. ON-BOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development. On-board proficiency training will be conducted to improve and enhance the capabilities of all V-22 Program individuals. For USMC personnel, the Individual Training Standards System, Marine Aviation Training Management and Evaluation Program (MATMEP), will be used to establish an effective and efficient training system that is responsive to USMC fleet training requirements. USAF On-board (continuation) training will be addressed in the USAF CV-22 STP. Navy on-board training requirements have not been determined.

a. Aviation Maintenance In-Service Training. Aviation Maintenance In-Service Training (AMIST) is intended to support the Fleet training requirements now satisfied by Maintenance Training Improvement Program (MTIP), and in that sense is the planned replacement. However, it is structured very differently, and will function as an integral part of the new Aviation Maintenance Training Continuum System (AMTCS) that will replace the existing aviation maintenance training structure. AMIST will provide standardized instruction to bridge the training gaps between initial and career training. With implementation of AMIST, technicians will be provided the training required to maintain a level of proficiency necessary to effectively perform the required tasks to reflect career progression. AMIST will begin when funding becomes available. The Air Force will accomplish in-service training per the Air Force STP.

b. Aviation Maintenance Training Continuum System. AMTCS will redesign the aviation training process (training continuum), and introduce Computer-Based Training (CBT) throughout the Navy technical training process. The application and adoption of recent advances in computer hardware and software technology will enable CBT, with its basic elements of Computer Managed Instruction, Computer Aided Instruction, and Interactive Courseware, to be integrated into the training continuum and provide essential support for standardizing technical training.

2. Personnel Qualification Standards. NA.

3. Other On-Board or In-Service Training Packages. Marine Corps on-board training is based on the current series of MCO P4790.12, Individual Training Standards System and MATMEP. This program is designed to meet Marine Corps, as well as Navy OPNAVINST 4790.2 series maintenance training requirements. It is a performance-based, standardized, level-progressive, documentable, training management and evaluation program. It identifies and prioritizes task inventories by MOS through a front-end analysis process that identifies task, skill, and knowledge requirements of each MOS. (MATMEP will be replaced by AMTCS in approximately FY02.)

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N61339-90-C-0074	Environmental Tectonics Corporation	County Line Industrial Park Southampton, PA 18966-3877
N00019-92-C-0095	Allied Signal Aerospace Company	Bendix Communications Division 1300 East Joppa Road Baltimore, MD 21204

2. Program Documentation. The current Joint Integrated Logistics Support Plan (JILSP) is dated 26 Mar 1997.

3. Technical Data Plan. The following V-22 series technical manuals are required to support the V-22 acquisition effort:

- Service Unique Flight Manuals (NATOPS USN and USMC, Flight Manual USAF)
- Interactive Electronic Technical Manuals (IETM)
- Maintenance Instruction Manuals (MIM)
- Structural Repair Publications
- Illustrated Parts Breakdown (IPB)
- Maintenance Requirement Cards (MRC)

These publications will be developed in progressive stages that reflect aircraft configuration changes. All three services will be included in the progressive stages of publication development.

4. Test Sets, Tools, and Test Equipment. Training Device (TD) and Technical Training Equipment (TTE) requirements and the logistics support required are being developed per MIL-STD-490. Operator and maintenance TDs and TTE developed to Type "A" detailed performance specifications will be required. TDs are being designed specifically to support the "core" training concept and will support any cadre training provided to the Air Force, Marine Corps, and Navy service members. Service-peculiar TD requirements will also be procured based upon the basic *core* trainers. Marine Corps TD usage is planned for 16 hours per day, five days per week, 50 weeks per year. The TDs are capable of being used on an as-available basis for instructing maintenance personnel on the techniques and safety aspects of engine and aircraft system operation. Table I-6 lists the projected location and number of TDs for the V-22 Program. An analysis is being conducted on each system to establish scheduled and unscheduled maintenance requirements for all levels of maintenance. From the identification of these maintenance

requirements, the support equipment, special tools, and test equipment are being identified and included as a requirement on the Support Equipment Recommendation Data List for procurement. The AN/USM-636(V) Consolidated Automated Support System (CASS) will be used to support the V-22 systems. The specific systems to be supported on CASS have not been determined. When this information becomes available it will be included in updates to this JTSP.

TABLE I-6. V-22 TRAINING DEVICES

AIRCRAFT	SITE	FFS	FTD	NAMTS	CPTT	PROCURE DATE	RFT DATE
MV-22	New River	1/1*	1			FY97/01	FY99/04
		1				FY97	FY01
		1				FY00	FY03
		1				FY06	FY09
	New River			1		FY97	FY01
				CV Parts		FY00	FY02
	New River		1			FY98	FY01
	New River		1			FY03	FY05
	New River		1			FY06	FY08
	Miramar		2			FY02	FY04
	Quantico		1			FY05	FY07
	Kaneohe Bay		2			FY04	FY06
	Pendleton		2			FY06	FY08
	Okinawa		2			FY07	FY09
	Norfolk (RES)		1			FY08	FY10
	Willow Grove (RES)		1			FY10	FY12
CV-22	Kirtland	1				FY99	FY02
			1			FY00	FY02
			1			FY01	FY03
		1			1	FY02	FY05
						FY01	FY03
	Hurlburt		1			FY01	FY03
	West Coast		1			FY05	FY07
	Europe Command (EUCOM)		1			FY03	FY05
	Pacific Command (PACOM)		1			FY04	FY06
HV-22	East Coast	1	1			FY10	FY12
	West Coast	1	1			FY14	FY17
TOTALS		8	23	1	1		

* An FFS will replace the OFT.

a. **Operational Flight Trainer (2F151).** This device is an operational flight system trainer capable of providing training in the development of pilot skills and techniques in the

MV-22B aircraft. The OFT is able to simulate MV-22B aircraft performance during cockpit preflight, aircraft start up, all flight operations in both conversion and fixed wing modes, navigational flight, instrument flight, aircraft shutdown, and cockpit postflight procedures. The OFT cockpit mirrors the actual aircraft and has a six degree of freedom, dome based motion platform. The OFT is capable of simulating MV-22B flight in all conditions including day, dusk, night, and instrument meteorological conditions. It is fully Night Vision Goggles (NVG) compatible with FLIR simulation capabilities. Training environments include operations at airfields, confined area landing sites, mountain areas, urban areas, low altitude flight areas, and aboard aircraft capable ships such as LHAs and LHDs. All aircraft maneuvers can be simulated to include normal flight procedures, auto-rotations, aerial refueling, formation flying, high altitude operations, nuclear, biological, and chemical operations, and low altitude terrain following operations, and may include physiological conditioning. The OFT is capable of simulating all emergencies and system malfunctions both visually and through cockpit instrumentation. The OFT and CPT are undergoing update to MV-22B configuration from MV-22A (they were originally procured under the Full-Scale Development program).

b. Cockpit Procedures Trainer (2C71). The CPT will mirror the actual aircraft but will be mounted on a fixed base with no visual system. This device will effectively train and develop pilot skills in cockpit management system proficiency, instrument flight, and emergency system malfunction procedures. The CPT simulates MV-22B aircraft performance during cockpit preflight, aircraft start up, navigational and instrument flight, aircraft shut down, and cockpit postflight procedures.

c. Full Flight Simulator / Flight Training Device. The FFS is a flight simulator with a full six degree-of-freedom motion base and an attached full color day, dusk, night visual system. The FFS is designed to support the MV-22B Training and Replacement syllabus, and includes a tactical environment simulation and supports simulator-to-simulator networking. The FFS is designed to meet the initial training needs of MV-22B aircrews in the proper operation of the MV-22B in all weather conditions, normal and emergency procedures, and NVG operations. The FFS will be the mainstay of operator training for the FRS. The FTD is similar to the FFS, but without the motion system, and is designed to meet proficiency training needs of MV-22B aircrews in instrument flight, emergency procedures, tactics, and to provide recurrent training for Fleet squadrons. FFSs and FTDs will be procured in both MV-22 and CV-22 configurations. The MV-22B training program will procure a total of seven FFSs and 23 FTDs for use by Marine Corps and Air Force operational and training squadrons. Of these devices, three FFSs and three FTDs are planned for MCAS New River.

d. Composite Maintenance Trainers. Composite Maintenance Trainers (CMT) will be developed based on LSA data and the Instructional Systems Development process to support multiple system training on each TD. The following CMTs provide organizational maintenance personnel the training necessary to service, troubleshoot, repair, or remove and replace, as appropriate, the aircraft's major systems and subsystems. Together they comprise the NAMTS.

- 11H134 Landing Gear/Fuel/Environmental Control Composite Maintenance Trainer *
- 11H135 Hydraulic/Flight Control/Wing Stow Composite Maintenance Trainer
- 11H136 Power Plant/Power Train Composite Maintenance Trainer
- 11H137 Avionics/Cockpit Management Display System Composite Maintenance Trainer
- 11H138 Cockpit Maintenance Procedures Trainer
- 11H160 Instructor Operator Station

* This trainer already includes CV-22 fuel features (kits for MV-22B).

e. Computer-Based Training. It is the intent of the V-22 Training System Program to incorporate CBT into the V-22 Training System. The depth and range of the CBT used will be determined during the development of production training. Programmatic requirements, such as Continuous Acquisition and Life-Cycle Support and IETMs, will be considered during the development of the training program.

5. Repair Parts. A technical data bank has been established in the V-22 Program for the USMC, USN, and USAF. The range and depth of data will be expanded as the pre-operational support program progresses and transitions to the operational program. The data will be used to develop detailed spares and repair parts requirements. The contractor will initially maintain this data. As the V-22 Program matures, this data bank will transition to the appropriate Inventory Control Point. The Government Support Date is FY04.

6. Human Systems Integration. No Human Systems Integration Plan exists for the V-22 Program, however, the Human Factors Engineering Program will ensure the requirements for operator and maintenance personnel will be integrated into the system design, and that the V-22 will permit maximum effectiveness for the man-machine system. The Human System Integration Plan is designed to ensure human considerations are fully accounted for in the weapon system development. Percentiles are no longer used as a determinant for aircrew personnel. Case 1 through 5 studies are used as the profiles for design. These cases are contained in the aircraft EMD specifications. Maintenance personnel (both male and female) for the V-22 Weapon System must be capable of working between the five to 95 percentile per Military Standard 1472 database.

7. Engineering and Technical Services and/or Advisory Services. The type and number of ETS required will be keyed to aircraft deliveries for each service, maintenance concepts, system complexity, maintenance task times, and frequency and difficulty of repair. ETS personnel will receive formal training and On-the-Job Training (OJT) in theories of operation, troubleshooting, maintenance, and repair of their respective systems. Training and update seminars will be conducted for ETS personnel throughout the program's life-cycle. Using V-22 aircraft maintenance concepts developed that are consistent with OPNAVINST 4790.2 (Series)

and AFSOCI 21-106, ETS personnel will be used to provide assistance to receiving activities, depots, and training sites from introduction of the aircraft in calendar year 2000. ETS personnel will provide informal training to maintenance personnel, and support operator training and briefings as required. They can provide instruction, OJT, and support aircraft repair at all levels of maintenance, as required.

K. SCHEDULES. The Marine Corps Initial Operational Capability (IOC) (12 MV-22 fielded) is scheduled for FY01. The Air Force IOC (12 combat coded CV-22s fielded) is scheduled for FY05. The Navy IOC is yet to be determined. More information will be included in updates to this JTSP. An estimated final procurement of 360 aircraft for the Marine Corp is proposed, allowing for a 1.0 percent attrition rate. Tables I-7 and I-8 show aircraft delivery schedules, fulfilling the total operating aircraft requirements of 336.6 aircraft in FY14.

TABLE I-7. AIRCRAFT DELIVERY SCHEDULE THROUGH FY14									
FISCAL YEAR	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
MV-22 Procurement	5	7	7	10	16	20	27	30	30
MV-22 Delivery (Cumulative)			2	9	18	29	45	65	92
Cumulative Deliveries			2	9	17.9	28.7	44.4	64	90.3
* Peacetime Attrition 1 %			0	0.1	0.2	0.3	0.4	0.6	0.9
Cumulative Remaining Aircraft			1.98	8.89	17.7	28.4	44	63.3	89.4

TABLE I-7. AIRCRAFT DELIVERY SCHEDULE THROUGH FY14 (CONTINUED)									
FISCAL YEAR	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
MV-22 Procurement	30	30	30	30	30	30	28		
MV-22 Delivery (cumulative)	122	152	182	212	242	272	302	332	360
Cumulative Deliveries	119.4	148.3	176.8	205	233	260.7	288.1	315.2	340
* Peacetime Attrition	1.2	1.5	1.8	2.1	2.3	2.6	2.9	3.2	3.4

Cumulative Remaining Aircraft	118.3	146.8	175	203	230.7	258.1	285.2	312	336.6
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* The attrition shown is per year for a total of 23.4 through FY14.

TABLE I-8. AIRCRAFT DELIVERY SCHEDULE PER SQUADRON THROUGH FY14									
ACTIVITY	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
Cumulative Operating			2	9	18	28	44	63	89
VMMT-204 Marine Aircraft Group (MAG)-26			PAX	9	12	12	12	16	18
Medium Tilt-Rotor Squadron (VMM)-264					6	9	12	12	12
VMM-162						7	12	12	12
VMM-266							8	12	12
VMM-365								11	12
VMM-161									12
VMM-163									
VMM-165									
VMM-166									
VMM-362									
VMM-363									
VMM-366									
VMM-266									
VMM-365									
VMM-364									
VMM-268									

**TABLE I-8. AIRCRAFT DELIVERY SCHEDULE
PER SQUADRON THROUGH FY14**

ACTIVITY	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05
VMM-164 (46 FRS)									
VMM-262									
VMM-265									
HMX-1 (MV-8/W-11)									2
VMM-744 (Norfolk)									
VMM-764 (location TBD) MAG-46									
VMM(H)-769 (location TBD) MAG-46									
VMM(H) - 722 Willow Grove MAG-49									

**TABLE I-8. AIRCRAFT DELIVERY SCHEDULE
PER SQUADRON THROUGH FY14 (CONTINUED)**

ACTIVITY	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
Cumulative Operating	118	147	175	203	231	258	285	312	323
VMMT-204 MAG-26	20	21	20	20	20	20	20	29	40
VMM-264	12	12	12	12	12	12	12	12	12
VMM-162	12	12	12	12	12	12	12	12	12
VMM-266	12	12	12	12	12	12	12	12	12
VMM-365	12	12	12	12	12	12	12	12	12

**TABLE I-8. AIRCRAFT DELIVERY SCHEDULE
PER SQUADRON THROUGH FY14 (CONTINUED)**

ACTIVITY	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
VMM-161	12	12	12	12	12	12	12	12	12
VMM-163	12	12	12	12	12	12	12	12	12
VMM-165	12	12	12	12	12	12	12	12	12
VMM-166	10	12	12	12	12	12	12	12	12
VMM-362		12	12	12	12	12	12	12	12
VMM-363		12	12	12	12	12	12	12	12
VMM-366			12	12	12	12	12	12	12
VMM-266			12	12	12	12	12	12	12
VMM-365			3	12	12	12	12	12	12
VMM-364				12	12	12	12	12	12
VMM-268				4	12	12	12	12	12
VMM-164 (46 FRS)					12	12	12	12	12
VMM-262					5	12	12	12	12
VMM-265						12	12	12	12
HMX-1 (MV-8/W-11)	4	6	8	11	14	17	19	19	19
VMM-744 (Norfolk)						5	12	12	12
VMM-764 (location TBD) MAG-46							12	12	12
VMM(H)-769 (location TBD) MAG-46							12	12	12

**TABLE I-8. AIRCRAFT DELIVERY SCHEDULE
PER SQUADRON THROUGH FY14 (CONTINUED)**

ACTIVITY	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13	FY14
VMM(H)-722 Willow Grove MAG-49								12	12

L. GOVERNMENT FURNISHED EQUIPMENT AND CONTRACTOR FURNISHED EQUIPMENT TRAINING REQUIREMENTS. NA.

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
Consolidated Automatic Support System (CASS) NTSP	A-50-8515C/D	PMA260	Preliminary Draft Jun 98
AN/APX-100(V) Transponder Set NTSP	A-50-8305B/D	PMA209	Preliminary Draft May 99
Advanced Composite Material Repair Program NTSP	A-50-8404C/A	AIR-4.3	Approved Nov 96
Cable Harness Repair of Manufacturing Equivalence Program NTSP	A-50-8512C/D	PMA260	Preliminary Draft Sep 98
V-22 Integrated Support Plan Revision F		AIR 3.1	Approved 4 Jun 98
V-22 JILSP		AIR 3.1	Approved 1 Apr 97
USAF CV-22 STP		AFSOC	17 Mar 97
MV-22 Security Classification Guide		AIR 4.1.3	9 Mar 95

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
JORD		AFSOC/ AIR 3.1	Approval Pending
TDRD	PMA-2052V	PMA205	6 July 98
V-22 Detail Specification	SD-572-1 Rev C	Bell Boeing	24 Jan 97
V-22 MER		PMA275	17 Jan 96
Inter-service Training Review Organizational Instruction	ITRO	CNET/N222	Jan 86
MV-22B Training & Readiness Manual	MCO P3500.16B Volume 8 Chapter 1,2	MCCDC/ C461A	In Review
V-22 Weapon System Planning Document (WSPD)	NAVAIRNOTE 13100	AIR 1.3.2G	7 Apr 98
Joint Training Policy for the Armed Forces of the United States	CJCSI 3500.01A		1 Jul 97
Inter-service Training	MCO 1580.7 / OPNAVINST 1500.27/ AFJI 36-2230 / (and AR 351-9)		1 Jul 86 New Version Pending Draft May 97
Memorandum Of Agreement for V- 22 Aircrew and Maintenance Training at MCAS New River, N.C.			11 Jun 98
MV/CV-22 Training and Training Equipment Plan	Report # 901-999-011 Revision-K	Bell Boeing Training	15 Apr 98

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the V-22 Osprey and, therefore, are not included in Part II of this JTSP:

II.A. Billet Requirements

II.A.2.b. Billets to be Deleted in Operational and Fleet Support Activities

II.A.2.c. Total Billets to be Deleted in Operational and Fleet Support Activities

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

II.A.1.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE

SOURCE: Marine Corps Table of Manpower Requirements

DATE: 2/1/98

ACTIVITY, UIC		PFYs	FY00	FY01	FY02	FY03	FY04
OPERATIONAL ACTIVITIES	MARINE						
VMM-162	00000	0	0	0	1	0	0
VMM-264	00000	0	0	1	0	0	0
VMM-266	00000	0	0	0	0	1	0
VMM-365	00000	0	0	0	0	0	1
TOTAL:		0	0	1	1	1	1
FLEET SUPPORT ACTIVITIES	MARINE						
MALS Augment	00000	0	0	1	1	1	1
MALS Augment For VMMT-204	00000	0	1	0	0	0	0
VMMT-204 FREST	00000	0	1	0	0	0	0
VMMT-204 FRS	00000	0	1	0	0	0	0
TOTAL:		0	3	1	1	1	1

NOTE 1: There are a total of 22 USMC squadrons transitioning to MV-22, 18 CH-46 squadrons and four CH-53D squadrons. Only five squadrons are shown above (FY00 through FY04), since the transition continues through FY14.

NOTE 2: The USAF will transition per their transition plan, which is being managed by the Air Force.

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
OPERATIONAL ACTIVITIES	MARINE				
VMM-264, 00000, FY01 Increment					
ACDU NAVY	1	0	2102		
	0	1	HM1	8404	
	0	1	HM2	8401	
	0	1	HM2	8406	
VMM-264, 00000, FY01 Increment					
ACDU USMC	1	0	0170		
	1	0	6002		
	1	0	6004		
	1	0	6302		
	28	0	7532		
	0	1	CPL	0131	
	0	1	CPL	0151	
	0	1	CPL	0431	
	0	1	CPL	6046	
	0	2	CPL	6047	
	0	1	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6086	
	0	6	CPL	6115	
	0	3	CPL	6155	
	0	6	CPL	6175	
	0	4	CPL	6325	
	0	1	CPL	6531	
	0	1	CPL	7041	
	0	1	GYSGT	0491	
	0	1	GYSGT	6046	
	0	1	GYSGT	6060	
	0	2	GYSGT	6115	
	0	1	GYSGT	6155	
	0	1	GYSGT	6175	
	0	1	GYSGT	6325	
	0	1	GYSGT	6531	
	0	1	LCPL	0121	
	0	1	LCPL	0131	
	0	1	LCPL	0151	
	0	1	LCPL	2111	
	0	1	LCPL	0231	
	0	1	LCPL	6042	
	0	1	LCPL	6046	
	0	1	LCPL	6060	
	0	1	LCPL	6086	
	0	16	LCPL	6115	
	0	5	LCPL	6155	
	0	6	LCPL	6175	
	0	7	LCPL	6325	
	0	1	LCPL	7041	
	0	1	MGYSGT	6119	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	MSGT	0193	
	0	1	MSGT	6119	
	0	1	MSGT	6391	
	0	1	SGT	0121	
	0	1	SGT	6042	
	0	1	SGT	6060	
	0	1	SGT	6086	
	0	2	SGT	6115	
	0	3	SGT	6155	
	0	4	SGT	6175	
	0	3	SGT	6325	
	0	1	SGT	6531	
	0	1	SGT	8711	
	0	1	SGTMAJ	9999	
	0	1	SSGT	0231	
	0	2	SSGT	6046	
	0	1	SSGT	6072	
	0	2	SSGT	6115	
	0	4	SSGT	6155	
	0	3	SSGT	6175	
0	2	SSGT	6325		
0	1	SSGT	7041		
0	1	SSGT	8421		
TOTAL:	33	126			
VMM-162, 00000, FY02 Increment					
ACDU NAVY	1	0	2102		
	0	1	HM1	8404	
	0	1	HM2	8401	
	0	1	HM2	8406	
VMM-162, 00000, FY02 Increment					
ACDU USMC	1	0	0170		
	1	0	6002		
	1	0	6004		
	1	0	6302		
	28	0	7532		
	0	1	CPL	0131	
	0	1	CPL	0151	
	0	1	CPL	0431	
	0	1	CPL	6046	
	0	2	CPL	6047	
	0	1	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6086	
	0	6	CPL	6115	
	0	3	CPL	6155	
	0	6	CPL	6175	
	0	4	CPL	6325	
	0	1	CPL	6531	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	CPL	7041	
	0	1	GYSGT	0491	
	0	1	GYSGT	6046	
	0	1	GYSGT	6060	
	0	2	GYSGT	6115	
	0	1	GYSGT	6155	
	0	1	GYSGT	6175	
	0	1	GYSGT	6325	
	0	1	GYSGT	6531	
	0	1	LCPL	0121	
	0	1	LCPL	0131	
	0	1	LCPL	0151	
	0	1	LCPL	2111	
	0	1	LCPL	0231	
	0	1	LCPL	6042	
	0	1	LCPL	6046	
	0	1	LCPL	6060	
	0	1	LCPL	6086	
	0	16	LCPL	6115	
	0	5	LCPL	6155	
	0	6	LCPL	6175	
	0	7	LCPL	6325	
	0	1	LCPL	7041	
	0	1	MGYSGT	9119	
	0	1	MSGT	0193	
	0	1	MSGT	6119	
	0	1	MSGT	6391	
	0	1	SGT	0121	
	0	1	SGT	6042	
	0	1	SGT	6060	
	0	1	SGT	6086	
	0	2	SGT	6115	
	0	3	SGT	6155	
	0	4	SGT	6175	
	0	3	SGT	6325	
	0	1	SGT	6531	
	0	1	SGT	8711	
	0	1	SGTMAJ	9999	
	0	1	SSGT	0231	
	0	2	SSGT	6046	
	0	1	SSGT	6072	
	0	2	SSGT	6115	
0	4	SSGT	6155		
0	3	SSGT	6175		
0	2	SSGT	6325		
0	1	SSGT	7041		
0	1	SSGT	8421		
TOTAL:	33	126			

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
OPERATIONAL ACTIVITIES	MARINE				
VMM-266, 00000, FY03 Increment					
ACDU NAVY	1	0	2102		
	0	1	HM1	8404	
	0	1	HM2	8401	
	0	1	HM2	8406	
VMM-266, 00000, FY03 Increment					
ACDU USMC	1	0	0170		
	1	0	6002		
	1	0	6004		
	1	0	6302		
	28	0	7532		
	0	1	CPL	0131	
	0	1	CPL	0151	
	0	1	CPL	0431	
	0	1	CPL	6046	
	0	2	CPL	6047	
	0	1	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6086	
	0	6	CPL	6115	
	0	3	CPL	6155	
	0	6	CPL	6175	
	0	4	CPL	6325	
	0	1	CPL	6531	
	0	1	CPL	7041	
	0	1	GYSGT	0491	
	0	1	GYSGT	6046	
	0	1	GYSGT	6060	
	0	2	GYSGT	6115	
	0	1	GYSGT	6155	
	0	1	GYSGT	6175	
	0	1	GYSGT	6325	
	0	1	GYSGT	6531	
	0	1	LCPL	0121	
	0	1	LCPL	0131	
	0	1	LCPL	0151	
	0	1	LCPL	2111	
	0	1	LCPL	0231	
	0	1	LCPL	6042	
	0	1	LCPL	6046	
	0	1	LCPL	6060	
	0	1	LCPL	6086	
	0	16	LCPL	6115	
	0	5	LCPL	6155	
	0	6	LCPL	6175	
	0	7	LCPL	6325	
	0	1	LCPL	7041	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	MGYSGT	9119	
	0	1	MSGT	0193	
	0	1	MSGT	6119	
	0	1	MSGT	6391	
	0	1	SGT	0121	
	0	1	SGT	6042	
	0	1	SGT	6060	
	0	1	SGT	6086	
	0	2	SGT	6115	
	0	3	SGT	6155	
	0	4	SGT	6175	
	0	3	SGT	6325	
	0	1	SGT	6531	
	0	1	SGT	8711	
	0	1	SGTMAJ	9999	
	0	1	SSGT	0231	
	0	2	SSGT	6046	
	0	1	SSGT	6072	
	0	2	SSGT	6115	
	0	4	SSGT	6155	
	0	3	SSGT	6175	
	0	2	SSGT	6325	
	0	1	SSGT	7041	
0	1	SSGT	8421		
TOTAL:	33	126			
VMM-365, 00000, FY04 Increment					
ACDU NAVY	1	0	2102		
	0	1	HM1	8404	
	0	1	HM2	8401	
	0	1	HM2	8406	
VMM-365, 00000, FY04 Increment					
ACDU USMC	1	0	0170		
	1	0	6002		
	1	0	6004		
	1	0	6302		
	28	0	7532		
	0	1	CPL	0131	
	0	1	CPL	0151	
	0	1	CPL	0431	
	0	1	CPL	6046	
	0	2	CPL	6047	
	0	1	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6086	
	0	6	CPL	6115	
	0	3	CPL	6155	
	0	6	CPL	6175	
	0	4	CPL	6325	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	CPL	6531	
	0	1	CPL	7041	
	0	1	GYSGT	0491	
	0	1	GYSGT	6046	
	0	1	GYSGT	6060	
	0	2	GYSGT	6115	
	0	1	GYSGT	6155	
	0	1	GYSGT	6175	
	0	1	GYSGT	6325	
	0	1	GYSGT	6531	
	0	1	LCPL	0121	
	0	1	LCPL	0131	
	0	1	LCPL	0151	
	0	1	LCPL	2111	
	0	1	LCPL	0231	
	0	1	LCPL	6042	
	0	1	LCPL	6046	
	0	1	LCPL	6060	
	0	1	LCPL	6086	
	0	16	LCPL	6115	
	0	5	LCPL	6155	
	0	6	LCPL	6175	
	0	7	LCPL	6325	
	0	1	LCPL	7041	
	0	1	MGYSGT	9119	
	0	1	MSGT	0193	
	0	1	MSGT	6119	
	0	1	MSGT	6391	
	0	1	SGT	0121	
	0	1	SGT	6042	
	0	1	SGT	6060	
	0	1	SGT	6086	
	0	2	SGT	6115	
	0	3	SGT	6155	
	0	4	SGT	6175	
	0	3	SGT	6325	
	0	1	SGT	6531	
	0	1	SGT	8711	
	0	1	SGTMAJ	9999	
	0	1	SSGT	0231	
	0	2	SSGT	6046	
	0	1	SSGT	6072	
	0	2	SSGT	6115	
0	4	SSGT	6155		
0	3	SSGT	6175		
0	2	SSGT	6325		
0	1	SSGT	7041		
0	1	SSGT	8421		

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
TOTAL:	33	126			
FLEET SUPPORT ACTIVITIES					
	MARINE				
MALS Augment, 00000, FY01 Increment					
ACDU USMC	0	2	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6073	
	0	3	CPL	6092	
	0	1	CPL	6132	
	0	1	CPL	6423	
	0	2	CPL	6466	
	0	1	CPL	6483	
	0	2	CPL	6541	
	0	2	CPL	6672	
	0	1	GYSGT	6094	
	0	1	LCPL	6072	
	0	1	LCPL	6073	
	0	1	LCPL	6092	
	0	1	LCPL	6132	
	0	1	LCPL	6423	
	0	1	LCPL	6433	
	0	2	LCPL	6466	
	0	2	LCPL	6492	
	0	3	LCPL	6672	
	0	1	SGT	6132	
	0	1	SGT	6412	
	0	1	SGT	6433	
	0	1	SGT	6672	
	0	1	SSGT	6094	
MALS Augment, 00000, FY02 Increment					
ACDU USMC	0	2	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6073	
	0	3	CPL	6092	
	0	1	CPL	6132	
	0	1	CPL	6423	
	0	2	CPL	6466	
	0	1	CPL	6483	
	0	2	CPL	6541	
	0	2	CPL	6672	
	0	1	GYSGT	6094	
	0	1	LCPL	6072	
	0	1	LCPL	6073	
	0	1	LCPL	6092	
	0	1	LCPL	6132	
	0	1	LCPL	6423	
	0	1	LCPL	6433	
	0	2	LCPL	6466	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	2	LCPL	6492	
	0	3	LCPL	6672	
	0	1	SGT	6132	
	0	1	SGT	6412	
	0	1	SGT	6433	
	0	1	SGT	6672	
	0	1	SSGT	6094	
MALS Augment, 00000, FY03 Increment					
ACDU USMC	0	2	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6073	
	0	3	CPL	6092	
	0	1	CPL	6132	
	0	1	CPL	6423	
	0	2	CPL	6466	
	0	1	CPL	6483	
	0	2	CPL	6541	
	0	2	CPL	6672	
	0	1	GYSGT	6094	
	0	1	LCPL	6072	
	0	1	LCPL	6073	
	0	1	LCPL	6092	
	0	1	LCPL	6132	
	0	1	LCPL	6423	
	0	1	LCPL	6433	
	0	2	LCPL	6466	
	0	2	LCPL	6492	
	0	3	LCPL	6672	
	0	1	SGT	6132	
	0	1	SGT	6412	
	0	1	SGT	6433	
	0	1	SGT	6672	
	0	1	SSGT	6094	
MALS Augment, 00000, FY04 Increment					
ACDU USMC	0	2	CPL	6060	
	0	1	CPL	6072	
	0	1	CPL	6073	
	0	3	CPL	6092	
	0	1	CPL	6132	
	0	1	CPL	6423	
	0	2	CPL	6466	
	0	1	CPL	6483	
	0	2	CPL	6541	
	0	2	CPL	6672	
	0	1	GYSGT	6094	
	0	1	LCPL	6072	
	0	1	LCPL	6073	
	0	1	LCPL	6092	
	0	1	LCPL	6132	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	LCPL	6423	
	0	1	LCPL	6433	
	0	2	LCPL	6466	
	0	2	LCPL	6492	
	0	3	LCPL	6672	
	0	1	SGT	6132	
	0	1	SGT	6412	
	0	1	SGT	6433	
	0	1	SGT	6672	
	0	1	SSGT	6094	
TOTAL:	0	140			
MALS Augment For VMMT-204, 00000, FY00 Increment					
ACDU USMC	0	1	CPL	6060	
	0	1	CPL	6092	
	0	1	CPL	6094	
	0	1	CPL	6132	
	0	2	CPL	6413	
	0	2	CPL	6423	
	0	2	CPL	6433	
	0	1	CPL	6483	
	0	1	CPL	6492	
	0	3	CPL	6672	
	0	1	LCPL	6060	
	0	2	LCPL	6072	
	0	2	LCPL	6073	
	0	2	LCPL	6092	
	0	2	LCPL	6094	
	0	1	LCPL	6132	
	0	2	LCPL	6413	
	0	1	LCPL	6423	
	0	2	LCPL	6433	
	0	2	LCPL	6483	
	0	4	LCPL	6672	
	0	1	SGT	6092	
	0	1	SGT	6094	
	0	2	SGT	6412	
	0	2	SGT	6413	
	0	1	SGT	6433	
0	1	SGT	6483		
0	1	SGT	6492		
0	1	SGT	6672		
TOTAL:	0	46			
VMMT-204 FREST, 00000, FY00 Increment					
ACDU USMC	1	0	6004		
	1	0	6302		
	0	2	CPL	0131	
	0	2	CPL	0151	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	CPL	4066	
	0	1	CPL	6042	
	0	2	CPL	6046	
	0	5	CPL	6175	
	0	8	CPL	6325	
	0	2	CPL	7041	
	0	2	GYSGT	6115	
	0	1	GYSGT	6175	
	0	1	GYSGT	6325	
	0	1	GYSGT	6416	
	0	1	LCPL	0151	
	0	1	LCPL	4066	
	0	1	LCPL	6042	
	0	1	LCPL	6672	
	0	2	MSGT	6119	
	0	1	MSGT	6391	
	0	1	SGT	0121	
	0	2	SGT	6060	
	0	11	SGT	6115	
	0	3	SGT	6155	
	0	4	SGT	6175	
	0	9	SGT	6325	
	0	1	SGT	6413	
	0	1	SGT	6672	
	0	1	SSGT	0193	
	0	2	SSGT	6072	
	0	5	SSGT	6115	
	0	2	SSGT	6125	
	0	2	SSGT	6155	
	0	2	SSGT	6175	
	0	3	SSGT	6325	
	0	1	SSGT	6414	
TOTAL:	2	85			
VMMT-204 FRS, 00000, FY00 Increment					
ACDU	1	0	2102		
	0	1	HM1	8404	
	0	1	HM2	8406	
VMMT-204 FRS, 00000, FY00 Increment					
USMC	1	0	0170		
	1	0	6002		
	1	0	6004		
	1	0	6302		
	19	0	7532		
	0	1	CPL	0121	
	0	1	CPL	0131	
	0	2	CPL	0151	
	0	1	CPL	0431	
	0	4	CPL	6047	

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	1	CPL	6060	
	0	1	CPL	6086	
	0	13	CPL	6115	
	0	6	CPL	6155	
	0	11	CPL	6175	
	0	5	CPL	6325	
	0	1	GYSGT	0193	
	0	41	GYSGT	0491	
	0	3	GYSGT	6046	
	0	1	GYSGT	6060	
	0	2	GYSGT	6115	
	0	1	GYSGT	6155	
	0	1	GYSGT	6175	
	0	1	GYSGT	6325	
	0	1	GYSGT	7041	
	0	1	LCPL	0121	
	0	1	LCPL	0131	
	0	1	LCPL	2111	
	0	1	LCPL	6042	
	0	2	LCPL	6046	
	0	2	LCPL	6060	
	0	3	LCPL	6072	
	0	2	LCPL	6086	
	0	18	LCPL	6115	
	0	12	LCPL	6155	
	0	16	LCPL	6175	
	0	7	LCPL	6325	
	0	1	LCPL	6531	
	0	2	LCPL	7041	
	0	1	MSGT	6119	
	0	1	MSGT	6391	
	0	1	SGT	0121	
	0	1	SGT	0131	
	0	1	SGT	0151	
	0	1	SGT	5711	
	0	1	SGT	6047	
	0	1	SGT	6060	
	0	1	SGT	6086	
	0	7	SGT	6115	
	0	6	SGT	6155	
0	6	SGT	6175		
0	3	SGT	6325		
0	1	SGT	6531		
0	1	SGT	8711		
0	1	SGTMAJ	9999		
0	1	SSGT	0231		
0	2	SSGT	6047		
0	6	SSGT	6072		
0	5	SSGT	6115		

II.A.1.b. BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
ACDU USMC	0	5	SSGT	6155	
	0	3	SSGT	6175	
	0	3	SSGT	6325	
	0	1	SSGT	6531	
	0	1	SSGT	7041	
	0	1	SSGT	8421	
TOTAL:	24	231			

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
OPERATIONAL MARINE ACTIVITIES - ACDU NAVY													
2102		0		0		1		2		3		4	
HM1	8404		0		0		1		2		3		4
HM2	8401		0		0		1		2		3		4
HM2	8406		0		0		1		2		3		4
OPERATIONAL MARINE ACTIVITIES - ACDU USMC													
0170		0		0		1		2		3		4	
6002		0		0		1		2		3		4	
6004		0		0		1		2		3		4	
6302		0		0		1		2		3		4	
7532		0		0		28		56		84		112	
CPL	0131		0		0		1		2		3		4
CPL	0151		0		0		1		2		3		4
CPL	0431		0		0		1		2		3		4
CPL	6046		0		0		1		2		3		4
CPL	6047		0		0		2		4		6		8
CPL	6060		0		0		1		2		3		4
CPL	6072		0		0		1		2		3		4
CPL	6086		0		0		1		2		3		4
CPL	6115		0		0		6		12		18		24
CPL	6155		0		0		3		6		9		12
CPL	6175		0		0		6		12		18		24
CPL	6325		0		0		4		8		12		16
CPL	6531		0		0		1		2		3		4
CPL	7041		0		0		1		2		3		4
GYSGT	0491		0		0		1		2		3		4
GYSGT	6046		0		0		1		2		3		4
GYSGT	6060		0		0		1		2		3		4
GYSGT	6115		0		0		2		4		6		8
GYSGT	6155		0		0		1		2		3		4
GYSGT	6175		0		0		1		2		3		4
GYSGT	6325		0		0		1		2		3		4
GYSGT	6531		0		0		1		2		3		4
LCPL	0121		0		0		1		2		3		4
LCPL	0131		0		0		1		2		3		4
LCPL	0151		0		0		1		2		3		4
LCPL	2111		0		0		1		2		3		4
LCPL	0231		0		0		1		2		3		4
LCPL	6042		0		0		1		2		3		4
LCPL	6046		0		0		1		2		3		4
LCPL	6060		0		0		1		2		3		4
LCPL	6086		0		0		1		2		3		4
LCPL	6115		0		0		16		32		48		64
LCPL	6155		0		0		5		10		15		20
LCPL	6175		0		0		6		12		18		24
LCPL	6325		0		0		7		14		21		28

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
LCPL	7041		0		0		1		2		3		4
MGYSGT	9119		0		0		1		2		3		4
MSGT	0193		0		0		1		2		3		4
MSGT	6119		0		0		1		2		3		4
MSGT	6391		0		0		1		2		3		4
SGT	0121		0		0		1		2		3		4
SGT	6042		0		0		1		2		3		4
SGT	6060		0		0		1		2		3		4
SGT	6086		0		0		1		2		3		4
SGT	6115		0		0		2		4		6		8
SGT	6155		0		0		3		6		9		12
SGT	6175		0		0		4		8		12		16
SGT	6325		0		0		3		6		9		12
SGT	6531		0		0		1		2		3		4
SGT	8711		0		0		1		2		3		4
SGTMAJ	9999		0		0		1		2		3		4
SSGT	0231		0		0		1		2		3		4
SSGT	6046		0		0		2		4		6		8
SSGT	6072		0		0		1		2		3		4
SSGT	6115		0		0		2		4		6		8
SSGT	6155		0		0		4		8		12		16
SSGT	6175		0		0		3		6		9		12
SSGT	6325		0		0		2		4		6		8
SSGT	7041		0		0		1		2		3		4
SSGT	8421		0		0		1		2		3		4
FLEET SUPPORT MARINE ACTIVITIES - ACDU NAVY													
2102			0		1		1		1		1		1
HM1	8404		0		1		1		1		1		1
HM2	8406		0		1		1		1		1		1
FLEET SUPPORT MARINE ACTIVITIES - ACDU USMC													
0170			0		1		1		1		1		1
6002			0		1		1		1		1		1
6004			0		2		2		2		2		2
6302			0		2		2		2		2		2
7532			0		19		19		19		19		19
CPL	0121		0		1		1		1		1		1
CPL	0131		0		3		3		3		3		3
CPL	0151		0		4		4		4		4		4
CPL	4066		0		1		1		1		1		1
CPL	0431		0		1		1		1		1		1
CPL	6042		0		1		1		1		1		1
CPL	6046		0		2		2		2		2		2
CPL	6047		0		4		4		4		4		4
CPL	6060		0		2		4		6		8		10
CPL	6072		0		0		1		2		3		4
CPL	6073		0		0		1		2		3		4
CPL	6086		0		1		1		1		1		1

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
CPL	6092		0		1		4		7		10		13
CPL	6094		0		1		1		1		1		1
CPL	6115		0		13		13		13		13		13
CPL	6132		0		1		2		3		4		5
CPL	6155		0		6		6		6		6		6
CPL	6175		0		16		16		16		16		16
CPL	6325		0		13		13		13		13		13
CPL	6413		0		2		2		2		2		2
CPL	6423		0		2		3		4		5		6
CPL	6433		0		2		2		2		2		2
CPL	6466		0		0		2		4		6		8
CPL	6483		0		1		2		3		4		5
CPL	6492		0		1		1		1		1		1
CPL	6541		0		0		2		4		6		8
CPL	6672		0		3		5		7		9		11
CPL	7041		0		2		2		2		2		2
GYSGT	0193		0		1		1		1		1		1
GYSGT	0491		0		41		41		41		41		41
GYSGT	6046		0		3		3		3		3		3
GYSGT	6060		0		1		1		1		1		1
GYSGT	6094		0		0		1		2		3		4
GYSGT	6115		0		4		4		4		4		4
GYSGT	6155		0		1		1		1		1		1
GYSGT	6175		0		2		2		2		2		2
GYSGT	6325		0		2		2		2		2		2
GYSGT	6416		0		1		1		1		1		1
GYSGT	7041		0		1		1		1		1		1
LCPL	0121		0		1		1		1		1		1
LCPL	0131		0		1		1		1		1		1
LCPL	0151		0		1		1		1		1		1
LCPL	2111		0		1		1		1		1		1
LCPL	4066		0		1		1		1		1		1
LCPL	6042		0		2		2		2		2		2
LCPL	6046		0		2		2		2		2		2
LCPL	6060		0		3		3		3		3		3
LCPL	6072		0		5		6		7		8		9
LCPL	6073		0		2		3		4		5		6
LCPL	6086		0		2		2		2		2		2
LCPL	6092		0		2		3		4		5		6
LCPL	6094		0		2		2		2		2		2
LCPL	6115		0		18		18		18		18		18
LCPL	6132		0		1		2		3		4		5
LCPL	6155		0		12		12		12		12		12
LCPL	6175		0		16		16		16		16		16
LCPL	6325		0		7		7		7		7		7
LCPL	6413		0		2		2		2		2		2
LCPL	6423		0		1		2		3		4		5
LCPL	6433		0		2		3		4		5		6
LCPL	6466		0		0		2		4		6		8

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
LCPL	6483		0		2		2		2		2		2
LCPL	6492		0		0		2		4		6		8
LCPL	6531		0		1		1		1		1		1
LCPL	6672		0		5		8		11		14		17
LCPL	7041		0		2		2		2		2		2
MSGT	6119		0		3		3		3		3		3
MSGT	6391		0		2		2		2		2		2
SGT	0121		0		2		2		2		2		2
SGT	0131		0		1		1		1		1		1
SGT	0151		0		1		1		1		1		1
SGT	5711		0		1		1		1		1		1
SGT	6047		0		1		1		1		1		1
SGT	6060		0		3		3		3		3		3
SGT	6086		0		1		1		1		1		1
SGT	6092		0		1		1		1		1		1
SGT	6094		0		1		1		1		1		1
SGT	6115		0		18		18		18		18		18
SGT	6132		0		0		1		2		3		4
SGT	6155		0		9		9		9		9		9
SGT	6175		0		10		10		10		10		10
SGT	6325		0		12		12		12		12		12
SGT	6412		0		2		3		4		5		6
SGT	6413		0		3		3		3		3		3
SGT	6433		0		1		2		3		4		5
SGT	6483		0		1		1		1		1		1
SGT	6492		0		1		1		1		1		1
SGT	6531		0		1		1		1		1		1
SGT	6672		0		2		3		4		5		6
SGT	8711		0		1		1		1		1		1
SGTMAJ	9999		0		1		1		1		1		1
SSGT	0193		0		1		1		1		1		1
SSGT	0231		0		1		1		1		1		1
SSGT	6047		0		2		2		2		2		2
SSGT	6072		0		8		8		8		8		8
SSGT	6094		0		0		1		2		3		4
SSGT	6115		0		10		10		10		10		10
SSGT	6125		0		2		2		2		2		2
SSGT	6155		0		7		7		7		7		7
SSGT	6175		0		5		5		5		5		5
SSGT	6325		0		6		6		6		6		6
SSGT	6414		0		1		1		1		1		1
SSGT	6531		0		1		1		1		1		1
SSGT	7041		0		1		1		1		1		1
SSGT	8421		0		1		1		1		1		1

II.A.1.c. TOTAL BILLETS REQUIRED FOR OPERATIONAL AND FLEET SUPPORT ACTIVITIES

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

SUMMARY TOTALS:

OPERATIONAL MARINE ACTIVITIES - ACDU NAVY

0	0	0	0	1	3	2	6	3	9	4	12
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OPERATIONAL MARINE ACTIVITIES - ACDU USMC

0	0	0	0	32	123	64	246	96	369	128	492
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FLEET SUPPORT MARINE ACTIVITIES - ACDU NAVY

0	0	1	2	1	2	1	2	1	2	1	2
---	---	---	---	---	---	---	---	---	---	---	---

FLEET SUPPORT MARINE ACTIVITIES - ACDU USMC

0	0	25	360	25	395	25	430	25	465	25	500
---	---	----	-----	----	-----	----	-----	----	-----	----	-----

GRAND TOTAL:

MARINE ACTIVITIES - ACDU NAVY

0	0	1	2	2	5	3	8	4	11	5	14
---	---	---	---	---	---	---	---	---	----	---	----

MARINE ACTIVITIES - ACDU USMC

0	0	25	360	57	518	89	676	121	834	153	992
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II.A.2.a. OPERATIONAL AND FLEET SUPPORT ACTIVITY DEACTIVATION SCHEDULE

SOURCE: Marine Corps Table of Manpower Requirements

DATE: 2/1/98

ACTIVITY, UIC		PFYs	FY01	FY02	FY03	FY04	FY05
OPERATIONAL ACTIVITIES	MARINE						
CH-46 Squadron (12 A/C)	00000	18	1	1	1	1	2
TOTAL:		18	1	1	1	1	2

NOTE 1: There are 18 CH-46 squadrons and four CH-53D squadrons that will transition to MV-22. The schedule calls for one CH-46 squadron transitioning per year beginning in FY01 until FY04. Starting in FY05, two CH-46 squadrons will transition per year until all squadrons have transitioned, which will occur in FY14.

NOTE 2: HMT-204 will continue CH-46 FREST training, but will transfer FRS responsibilities to HMM-164.

NOTE 3: This shows CH-46 Squadrons transitioning only. The four CH-53s will transition in the out-years and will be included as they come into transition.

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

DESIG RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

INSTRUCTOR BILLETS

TRAINING ACTIVITY, LOCATION, UIC: VMMT-204, MCAS New River, XXXXX

USMC

6115	0	0	0	0	0	6	0	7	0	8	0	9
6155	0	0	0	0	0	3	0	3	0	3	0	3
6175	0	0	0	0	0	3	0	3	0	5	0	6
6325	0	0	0	0	0	2	0	2	0	3	0	3
TOTAL ACTIVITY:	0	0	0	0	0	15	0	15	0	19	0	21

DESIG RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY05		FY06		FY07		FY08		FY09	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: VMMT-204, MCAS New River, XXXXX

USMC

6115	0	9	0	12	0	13	0	14	0	15	0	16
6155	0	3	0	3	0	3	0	3	0	3	0	3
6175	0	6	0	18	0	9	0	10	0	11	0	12
6325	0	3	0	5	0	5	0	6	0	6	0	7
TOTAL ACTIVITY:	0	21	0	28	0	30	0	33	0	36	0	38

NOTE 1: VMMT-204 will be established in FY00 and will start training personnel in May 2001 for the MV-22. HMT-204 FREST will continue to train maintenance personnel for CH-46. It is planned for the HMT-204 FRS Pilot training to be moved to HMM-164 Tustin, California.

NOTE 2: Instructor requirements were calculated by Inter-service Training Review Organization (ITRO) methodology in New River and were used in this part of the JTP.

NOTE 3: Although the MALS Augment for VMMT-204, VMMT-204 FREST, and VMMT-204 FRS will require training in FY00, it is planned that the personnel for this command will be trained during the EMD initial training and during contractor instructor cadre training.

II.A.3. TRAINING ACTIVITIES INSTRUCTOR AND SUPPORT BILLET REQUIREMENTS

Air Force Instructor Requirements

DESIG RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

INSTRUCTOR BILLETS

TRAINING ACTIVITY, LOCATION, UIC: VMMT-204, MCAS New River, XXXXX

USAF

1A1X1B	0	0	0	0	0	1	0	2	0	2	0	5
2A3X2	0	0	0	0	0	2	0	2	0	2	0	3
2A5X2	0	0	0	0	0	2	0	2	0	2	0	2
2A6X1B	0	0	0	0	0	0	0	1	0	1	0	1
2A6X5	0	0	0	0	0	0	0	1	0	1	0	1
2A6X6	0	0	0	0	0	1	0	2	0	2	0	2

TOTAL ACTIVITY: 0 0 0 0 0 6 0 10 0 10 0 14

DESIG RATING	PNEC/SNEC PMOS/SMOS	PFYs		FY05		FY06		FY07		FY08		FY09	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

INSTRUCTOR BILLETS

TRAINING ACTIVITY, LOCATION, UIC: VMMT-204, MCAS New River, XXXXX

USAF

1A1X1B	0	5	0	6	0	9	0	8	0	10	0	6
2A3X2	0	3	0	3	0	4	0	4	0	5	0	3
2A5X2	0	2	0	3	0	4	0	3	0	4	0	2
2A6X1B	0	1	0	1	0	1	0	1	0	1	0	1
2A6X5	0	1	0	1	0	1	0	1	0	1	0	1
2A6X6	0	2	0	2	0	2	0	2	0	2	0	2

TOTAL ACTIVITY: 0 14 0 16 0 21 0 19 0 23 0 15

NOTE: Instructor requirements were calculated by Inter-service ITRO methodology in New River and were used in this part of the JTP.

II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs		FY00		FY01		FY02		FY03		FY04	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River, XXXXX													
	Marine	0.0	0.0	0.0	0.0	0.0	11.9	0.0	17.2	0.0	27.2	0.0	34.7
	USAF	0.0	0.0	0.0	0.0	0.0	0.5	0.0	2.4	0.0	11.0	0.0	15.7
SUMMARY TOTAL:													
	Marine	0.0	0.0	0.0	0.0	0.0	11.9	0.0	17.2	0.0	27.2	0.0	34.7
	USAF	0.0	0.0	0.0	0.0	0.0	0.5	0.0	2.4	0.0	11.0	0.0	15.7
GRAND TOTAL:													
	Marine	0.0	0.0	0.0	0.0	0.0	11.9	0.0	17.2	0.0	27.2	0.0	34.7
	USAF	0.0	0.0	0.0	0.0	0.0	0.5	0.0	2.4	0.0	11.0	0.0	15.7

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs		FY05		FY06		FY07		FY08		FY09	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River, XXXXX													
	Marine	0.0	34.7	0.0	48.7	0.0	57.8	0.0	63.5	0.0	69.0	0.0	74.4
	USAF	0.0	15.7	0.0	17.9	0.0	21.2	0.0	22.7	0.0	26.7	0.0	15.1
SUMMARY TOTAL:													
	Marine	0.0	34.7	0.0	48.7	0.0	57.8	0.0	63.5	0.0	69.0	0.0	74.4
	USAF	0.0	15.7	0.0	17.9	0.0	21.2	0.0	22.7	0.0	26.7	0.0	15.1
GRAND TOTAL:													
	Marine	0.0	34.7	0.0	48.7	0.0	57.8	0.0	63.5	0.0	69.0	0.0	74.4
	USAF	0.0	15.7	0.0	17.9	0.0	21.2	0.0	22.7	0.0	26.7	0.0	15.1

NOTE 1: The Student throughput requirements calculated by ITRO were used to calculate the chargeable student billets in this section.

NOTE 2: Officer student throughput has not yet been determined and will be included when it becomes available.

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC / SNEC	BILLET BASE	FY00		FY01		FY02		FY03		FY04	
			+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
a. OFFICER - USN												
Operational Billets ACDU and TAR												
2102		0	0	0	1	1	1	2	1	3	1	4
Fleet Support Billets ACDU and TAR												
2102		0	1	1	0	1	0	1	0	1	0	1
TOTAL USN OFFICER BILLETS:												
Operational		0	0	0	1	1	1	2	1	3	1	4
Fleet Support		0	1	1	0	1	0	1	0	1	0	1
b. ENLISTED - USN												
Operational Billets ACDU and TAR												
HM1	8404	0	0	0	1	1	1	2	1	3	1	4
HM2	8401	0	0	0	1	1	1	2	1	3	1	4
HM2	8406	0	0	0	1	1	1	2	1	3	1	4
Fleet Support Billets ACDU and TAR												
HM1	8404	0	1	1	0	1	0	1	0	1	0	1
HM2	8406	0	1	1	0	1	0	1	0	1	0	1
TOTAL USN ENLISTED BILLETS:												
Operational		0	0	0	3	3	3	6	3	9	3	12
Fleet Support		0	2	2	0	2	0	2	0	2	0	2
c. OFFICER - USMC												
Operational Billets ACDU and TAR												
0170		0	0	0	1	1	1	2	1	3	1	4
6002		0	0	0	1	1	1	2	1	3	1	4
6004		0	0	0	1	1	1	2	1	3	1	4
6302		0	0	0	1	1	1	2	1	3	1	4
7532		0	0	0	28	28	28	56	28	84	28	112
Fleet Support Billets ACDU and TAR												
0170		0	1	1	0	1	0	1	0	1	0	1
6002		0	1	1	0	1	0	1	0	1	0	1
6004		0	2	2	0	2	0	2	0	2	0	2
6302		0	2	2	0	2	0	2	0	2	0	2

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC / SNEC	BILLET BASE	FY00		FY01		FY02		FY03		FY04	
			+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
7532		0	19	19	0	19	0	19	0	19	0	19
* Chargeable Student Billets ACDU and TAR												
		0	0	0	0	0	0	0	0	0	0	0
TOTAL USMC OFFICER BILLETS:												
Operational		0	0	0	32	32	32	64	32	96	32	128
Fleet Support		0	25	25	0	25	0	25	0	25	0	25
* Chargeable Student		0	0	0	0	0	0	0	0	0	0	0

* **NOTE:** Officer aircrew student throughput has not yet been determined and will be included as it becomes available. The V-22 FIT at New River will provide the Annual Training Input Requirements that will be used to calculate chargeable student billets.

d. ENLISTED - USMC

Operational Billets ACDU and TAR

CPL 0131	0	0	0	1	1	1	2	1	3	1	4
CPL 0151	0	0	0	1	1	1	2	1	3	1	4
CPL 0431	0	0	0	1	1	1	2	1	3	1	4
CPL 6046	0	0	0	1	1	1	2	1	3	1	4
CPL 6047	0	0	0	2	2	2	4	2	6	2	8
CPL 6060	0	0	0	1	1	1	2	1	3	1	4
CPL 6072	0	0	0	1	1	1	2	1	3	1	4
CPL 6086	0	0	0	1	1	1	2	1	3	1	4
CPL 6115	0	0	0	6	6	6	12	6	18	6	24
CPL 6155	0	0	0	3	3	3	6	3	9	3	12
CPL 6175	0	0	0	6	6	6	12	6	18	6	24
CPL 6325	0	0	0	4	4	4	8	4	12	4	16
CPL 6531	0	0	0	1	1	1	2	1	3	1	4
CPL 7041	0	0	0	1	1	1	2	1	3	1	4
GYSGT 0491	0	0	0	1	1	1	2	1	3	1	4
GYSGT 6046	0	0	0	1	1	1	2	1	3	1	4
GYSGT 6060	0	0	0	1	1	1	2	1	3	1	4
GYSGT 6115	0	0	0	2	2	2	4	2	6	2	8
GYSGT 6155	0	0	0	1	1	1	2	1	3	1	4
GYSGT 6175	0	0	0	1	1	1	2	1	3	1	4
GYSGT 6325	0	0	0	1	1	1	2	1	3	1	4
GYSGT 6531	0	0	0	1	1	1	2	1	3	1	4
LCPL 0121	0	0	0	1	1	1	2	1	3	1	4
LCPL 0131	0	0	0	1	1	1	2	1	3	1	4
LCPL 0151	0	0	0	1	1	1	2	1	3	1	4
LCPL 2111	0	0	0	1	1	1	2	1	3	1	4
LCPL 0231	0	0	0	1	1	1	2	1	3	1	4
LCPL 6042	0	0	0	1	1	1	2	1	3	1	4
LCPL 6046	0	0	0	1	1	1	2	1	3	1	4
LCPL 6060	0	0	0	1	1	1	2	1	3	1	4

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC / SNEC	BILLET BASE	FY00		FY01		FY02		FY03		FY04	
			+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
LCPL	6086	0	0	0	1	1	1	2	1	3	1	4
LCPL	6115	0	0	0	16	16	16	32	16	48	16	64
LCPL	6155	0	0	0	5	5	5	10	5	15	5	20
LCPL	6175	0	0	0	6	6	6	12	6	18	6	24
LCPL	6325	0	0	0	7	7	7	14	7	21	7	28
LCPL	7041	0	0	0	1	1	1	2	1	3	1	4
MGYSGT		9119	0	0	0	1	1	1	2	1	3	1
MSGT	0193	0	0	0	1	1	1	2	1	3	1	4
MSGT	6119	0	0	0	1	1	1	2	1	3	1	4
MSGT	6391	0	0	0	1	1	1	2	1	3	1	4
SGT	0121	0	0	0	1	1	1	2	1	3	1	4
SGT	6042	0	0	0	1	1	1	2	1	3	1	4
SGT	6060	0	0	0	1	1	1	2	1	3	1	4
SGT	6086	0	0	0	1	1	1	2	1	3	1	4
SGT	6115	0	0	0	2	2	2	4	2	6	2	8
SGT	6155	0	0	0	3	3	3	6	3	9	3	12
SGT	6175	0	0	0	4	4	4	8	4	12	4	16
SGT	6325	0	0	0	3	3	3	6	3	9	3	12
SGT	6531	0	0	0	1	1	1	2	1	3	1	4
SGT	8711	0	0	0	1	1	1	2	1	3	1	4
SGTMAJ	9999	0	0	0	1	1	1	2	1	3	1	4
SSGT	0231	0	0	0	1	1	1	2	1	3	1	4
SSGT	6046	0	0	0	2	2	2	4	2	6	2	8
SSGT	6072	0	0	0	1	1	1	2	1	3	1	4
SSGT	6115	0	0	0	2	2	2	4	2	6	2	8
SSGT	6155	0	0	0	4	4	4	8	4	12	4	16
SSGT	6175	0	0	0	3	3	3	6	3	9	3	12
SSGT	6325	0	0	0	2	2	2	4	2	6	2	8
SSGT	7041	0	0	0	1	1	1	2	1	3	1	4
SSGT	8421	0	0	0	1	1	1	2	1	3	1	4
Fleet Support Billets ACDU and TAR												
CPL	0121	0	1	1	0	1	0	1	0	1	0	1
CPL	0131	0	3	3	0	3	0	3	0	3	0	3
CPL	0151	0	4	4	0	4	0	4	0	4	0	4
CPL	4066	0	1	1	0	1	0	1	0	1	0	1
CPL	0431	0	1	1	0	1	0	1	0	1	0	1
CPL	6042	0	1	1	0	1	0	1	0	1	0	1
CPL	6046	0	2	2	0	2	0	2	0	2	0	2
CPL	6047	0	4	4	0	4	0	4	0	4	0	4
CPL	6060	0	2	2	2	4	2	6	2	8	2	10
CPL	6072	0	0	0	1	1	1	2	1	3	1	4
CPL	6073	0	0	0	1	1	1	2	1	3	1	4
CPL	6086	0	1	1	0	1	0	1	0	1	0	1
CPL	6092	0	1	1	3	4	3	7	3	10	3	13
CPL	6094	0	1	1	0	1	0	1	0	1	0	1
CPL	6115	0	13	13	0	13	0	13	0	13	0	13
CPL	6132	0	1	1	1	2	1	3	1	4	1	5
CPL	6155	0	6	6	0	6	0	6	0	6	0	6

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC / SNEC	BILLET BASE	FY00		FY01		FY02		FY03		FY04	
			+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
CPL	6175	0	16	16	0	16	0	16	0	16	0	16
CPL	6325	0	13	13	0	13	0	13	0	13	0	13
CPL	6413	0	2	2	0	2	0	2	0	2	0	2
CPL	6423	0	2	2	1	3	1	4	1	5	1	6
CPL	6433	0	2	2	0	2	0	2	0	2	0	2
CPL	6466	0	0	0	2	2	2	4	2	6	2	8
CPL	6483	0	1	1	1	2	1	3	1	4	1	5
CPL	6492	0	1	1	0	1	0	1	0	1	0	1
CPL	6541	0	0	0	2	2	2	4	2	6	2	8
CPL	6672	0	3	3	2	5	2	7	2	9	2	11
CPL	7041	0	2	2	0	2	0	2	0	2	0	2
GYSGT	0193	0	1	1	0	1	0	1	0	1	0	1
GYSGT	0491	0	41	41	0	41	0	41	0	41	0	41
GYSGT	6046	0	3	3	0	3	0	3	0	3	0	3
GYSGT	6060	0	1	1	0	1	0	1	0	1	0	1
GYSGT	6094	0	0	0	1	1	1	2	1	3	1	4
GYSGT	6115	0	4	4	0	4	0	4	0	4	0	4
GYSGT	6155	0	1	1	0	1	0	1	0	1	0	1
GYSGT	6175	0	2	2	0	2	0	2	0	2	0	2
GYSGT	6325	0	2	2	0	2	0	2	0	2	0	2
GYSGT	6416	0	1	1	0	1	0	1	0	1	0	1
GYSGT	7041	0	1	1	0	1	0	1	0	1	0	1
LCPL	0121	0	1	1	0	1	0	1	0	1	0	1
LCPL	0131	0	1	1	0	1	0	1	0	1	0	1
LCPL	0151	0	1	1	0	1	0	1	0	1	0	1
LCPL	2111	0	1	1	0	1	0	1	0	1	0	1
LCPL	4066	0	1	1	0	1	0	1	0	1	0	1
LCPL	6042	0	2	2	0	2	0	2	0	2	0	2
LCPL	6046	0	2	2	0	2	0	2	0	2	0	2
LCPL	6060	0	3	3	0	3	0	3	0	3	0	3
LCPL	6072	0	5	5	1	6	1	7	1	8	1	9
LCPL	6073	0	2	2	1	3	1	4	1	5	1	6
LCPL	6086	0	2	2	0	2	0	2	0	2	0	2
LCPL	6092	0	2	2	1	3	1	4	1	5	1	6
LCPL	6094	0	2	2	0	2	0	2	0	2	0	2
LCPL	6115	0	18	18	0	18	0	18	0	18	0	18
LCPL	6132	0	1	1	1	2	1	3	1	4	1	5
LCPL	6155	0	12	12	0	12	0	12	0	12	0	12
LCPL	6175	0	16	16	0	16	0	16	0	16	0	16
LCPL	6325	0	7	7	0	7	0	7	0	7	0	7
LCPL	6413	0	2	2	0	2	0	2	0	2	0	2
LCPL	6423	0	1	1	1	2	1	3	1	4	1	5
LCPL	6433	0	2	2	1	3	1	4	1	5	1	6
LCPL	6466	0	0	0	2	2	2	4	2	6	2	8
LCPL	6483	0	2	2	0	2	0	2	0	2	0	2
LCPL	6492	0	0	0	2	2	2	4	2	6	2	8
LCPL	6531	0	1	1	0	1	0	1	0	1	0	1
LCPL	6672	0	5	5	3	8	3	11	3	14	3	17
LCPL	7041	0	2	2	0	2	0	2	0	2	0	2

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC / SNEC	BILLET BASE	FY00		FY01		FY02		FY03		FY04	
			+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
MSGT	6119	0	3	3	0	3	0	3	0	3	0	3
MSGT	6391	0	2	2	0	2	0	2	0	2	0	2
SGT	0121	0	2	2	0	2	0	2	0	2	0	2
SGT	0131	0	1	1	0	1	0	1	0	1	0	1
SGT	0151	0	1	1	0	1	0	1	0	1	0	1
SGT	5711	0	1	1	0	1	0	1	0	1	0	1
SGT	6047	0	1	1	0	1	0	1	0	1	0	1
SGT	6060	0	3	3	0	3	0	3	0	3	0	3
SGT	6086	0	1	1	0	1	0	1	0	1	0	1
SGT	6092	0	1	1	0	1	0	1	0	1	0	1
SGT	6094	0	1	1	0	1	0	1	0	1	0	1
SGT	6115	0	18	18	0	18	0	18	0	18	0	18
SGT	6132	0	0	0	1	1	1	2	1	3	1	4
SGT	6155	0	9	9	0	9	0	9	0	9	0	9
SGT	6175	0	10	10	0	10	0	10	0	10	0	10
SGT	6325	0	12	12	0	12	0	12	0	12	0	12
SGT	6412	0	2	2	1	3	1	4	1	5	1	6
SGT	6413	0	3	3	0	3	0	3	0	3	0	3
SGT	6433	0	1	1	1	2	1	3	1	4	1	5
SGT	6483	0	1	1	0	1	0	1	0	1	0	1
SGT	6492	0	1	1	0	1	0	1	0	1	0	1
SGT	6531	0	1	1	0	1	0	1	0	1	0	1
SGT	6672	0	2	2	1	3	1	4	1	5	1	6
SGT	8711	0	1	1	0	1	0	1	0	1	0	1
SGTMAJ	9999	0	1	1	0	1	0	1	0	1	0	1
SSGT	0193	0	1	1	0	1	0	1	0	1	0	1
SSGT	0231	0	1	1	0	1	0	1	0	1	0	1
SSGT	6047	0	2	2	0	2	0	2	0	2	0	2
SSGT	6072	0	8	8	0	8	0	8	0	8	0	8
SSGT	6094	0	0	0	1	1	1	2	1	3	1	4
SSGT	6115	0	10	10	0	10	0	10	0	10	0	10
SSGT	6125	0	2	2	0	2	0	2	0	2	0	2
SSGT	6155	0	7	7	0	7	0	7	0	7	0	7
SSGT	6175	0	5	5	0	5	0	5	0	5	0	5
SSGT	6325	0	6	6	0	6	0	6	0	6	0	6
SSGT	6414	0	1	1	0	1	0	1	0	1	0	1
SSGT	6531	0	1	1	0	1	0	1	0	1	0	1
SSGT	7041	0	1	1	0	1	0	1	0	1	0	1
SSGT	8421	0	1	1	0	1	0	1	0	1	0	1
Staff Billets ACDU and TAR												
	6115	0	0	0	6	6	1	7	0	7	3	10
	6155	0	0	0	3	3	0	3	0	3	0	3
	6175	0	0	0	4	4	0	4	0	4	3	7
	6325	0	0	0	2	2	1	3	0	3	1	4
Chargeable Student Billets ACDU and TAR												
		0	0	0	8	8	3	11	7	18	5	23

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC / SNEC	BILLET BASE	FY00		FY01		FY02		FY03		FY04	
			+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
TOTAL USMC ENLISTED BILLETS:												
Operational		0	0	0	123	123	123	246	123	369	123	492
Fleet Support		0	360	360	35	395	35	430	35	465	35	500
Staff		0	0	0	15	15	2	17	0	17	7	24
Chargeable Student		0	0	0	12	12	3	17	10	27	12	35

NOTE: VMMT-204 officer and enlisted instructor and maintenance personnel billet base will include most of the personnel already trained during the EMD Phase.

II.B. PERSONNEL REQUIREMENTS

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: M-601-XXXX, V-22 Power Plants and Related Systems Organizational Maintenance
COURSE LENGTH: 9.6 Weeks **TOUR LENGTH:**
ATTRITION FACTOR: 14% **BACKOUT FACTOR:** 0.19

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River	Marine	USMC		0		40		58		92		120
COURSE TOTAL:				0		40		58		92		120

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River	Marine	USMC		165		196		217		236		255
COURSE TOTAL:				165		196		217		236		255

CIN, COURSE TITLE: M-602-XXX1, V-22 Avionics and Electrical Systems Organizational Maintenance
COURSE LENGTH: 14.0 Weeks **TOUR LENGTH:**
ATTRITION FACTOR: 14% **BACKOUT FACTOR:** 0.28

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River	Marine	USMC		0		16		24		38		46
COURSE TOTAL:				0		16		24		38		46

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River	Marine	USMC		68		81		89		97		105
COURSE TOTAL:				68		81		89		97		105

NOTE 1: This attrition factor was calculated with 14 percent training attrition from the student throughput requirements calculated by ITRO.

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: M-603-XXXX, V-22 Airframes and Hydraulic Systems Organizational Maintenance

COURSE LENGTH: 9.6 Weeks

TOUR LENGTH:

ATTRITION FACTOR: 14%

BACKOUT FACTOR: 0.19

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River	Marine	USMC		0		13		17		29		37
COURSE TOTAL:				0		13		17		29		37

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River	Marine	USMC		50		58		63		67		72
COURSE TOTAL:				50		58		63		67		72

NOTE 1: This attrition factor was calculated with 14 percent training attrition from the student throughput requirements calculated by ITRO.

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

Air Force Annual Training Inputs

CIN, COURSE TITLE: M-601-3626, V-22 Power Plants and Related Systems Organizational Maintenance

COURSE LENGTH: 2.6 Weeks

ATTRITION FACTOR: 14%

TOUR LENGTH:

BACKOUT FACTOR: 0.05

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		0		0		10		39		57
COURSE TOTAL:				0		0		10		39		57

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		63		76		82		96		55
COURSE TOTAL:				63		76		82		96		55

CIN, COURSE TITLE: M-603-XXXX, V-22 Airframes and Hydraulic Systems Organizational Maintenance

COURSE LENGTH: 3.4 Weeks

ATTRITION FACTOR: 14%

TOUR LENGTH:

BACKOUT FACTOR: 0.07

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		0		0		3		16		18
COURSE TOTAL:				0		0		3		16		18

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		25		24		26		31		19
COURSE TOTAL:				25		24		26		31		19

NOTE 1: This attrition factor was calculated with 14 percent training attrition from the student throughput requirements provided by the Air Force.

II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: M-602-XXX3, V-22 Integrated Avionics Systems Organizational Maintenance

COURSE LENGTH: 13.0 Weeks

TOUR LENGTH:

ATTRITION FACTOR: 14%

BACKOUT FACTOR: 0.26

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		0		0		7		29		44
COURSE TOTAL:				0		0		7		29		44

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		47		60		65		75		41
COURSE TOTAL:				47		60		65		75		41

CIN, COURSE TITLE: M-602-XXX2, V-22 Environmental and Electrical Systems Organizational Maintenance

COURSE LENGTH: 6.4 Weeks

TOUR LENGTH:

ATTRITION FACTOR: 14%

BACKOUT FACTOR: 0.13

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY00		FY01		FY02		FY03		FY04	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		0		5		2		16		18
COURSE TOTAL:				0		5		2		16		18

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	FY05		FY06		FY07		FY08		FY09	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VMMT-204, MCAS New River												
		USAF		25		24		25		31		19
COURSE TOTAL:				25		24		25		31		19

NOTE 1: This attrition factor was calculated with 14 percent training attrition from the student throughput requirements provided by Air Force.

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the V-22 Osprey and, therefore, are not included in Part III of this JTSP:

III.A.2. Follow-on Training

III.A.2.a. Existing Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

PART III - TRAINING REQUIREMENTS

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: V-22 Pilot Ground School/Pilot Ground School Basic/Pilot Ground Refresher Course (OT-11E)
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 17 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
NAWCAD Patuxent River, 00421	Mar 99	4		6 Input
	Completed	0.3		AOB
		0		Chargeable

COURSE TITLE: V-22 Pilot Ground School/Pilot Ground School Basic/Pilot Ground Refresher Course
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 17 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
NAWCAD Patuxent River, 00421	Mar 99	4		6 Input
		0.3		AOB
		0		Chargeable

COURSE TITLE: V-22 Pilot Flight Training
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 3 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
NAWCAD Patuxent River, 00421	Mar 99		6	Input
	Jun 99		0.1	AOB
			0	Chargeable

COURSE TITLE: V-22 Aircraft Familiarization Course
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 2 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	STUDENTS		
		OFF	ENL	CIV
NAWCAD Patuxent River, 00421	Jul 99		88	Input
			0.5	AOB
			0	Chargeable

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: V-22 Aircrew Familiarization Course
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 17 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jul 99		8		Input
			0.4		AOB
			0		Chargeable

COURSE TITLE: V-22 Power Plants and Related Systems Organizational Maintenance Course
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 33 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jun 99		8		Input
			0.7		AOB
			0		Chargeable

COURSE TITLE: V-22 Airframe Organizational Maintenance Course
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 13 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jun 99		8		Input
			0.3		AOB
			0		Chargeable

COURSE TITLE: V-22 Hydraulic Systems Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 12 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jun 99		8		Input
			0.3		AOB
			0		Chargeable

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: V-22 Environmental Control Systems Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 12 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jul 99	0	8		0 Input
			0.3		AOB
			0		Chargeable

COURSE TITLE: V-22 Communication/Navigation/Identification Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 19 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jul 99		8		Input
			0.4		AOB
			0		Chargeable

COURSE TITLE: V-22 Forward Looking Infrared Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 3 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jun 99		8		Input
			0.1		AOB
			0		Chargeable

COURSE TITLE: V-22 Electronic Countermeasures Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 5 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Aug 99		8		Input
			0.1		AOB
			0		Chargeable

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: V-22 Electrical Systems Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 19 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	May 99		8		Input
			0.4		AOB
			0		Chargeable

COURSE TITLE: V-22 Flight Control System Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 19 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Jul 99		8		Input
			0.4		AOB
			0		Chargeable

COURSE TITLE: V-22 Cockpit Management System Organizational Maintenance Course
COURSE DEVELOPER: Boeing
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 12 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	May 99		8		Input
			0.3		AOB
			0		Chargeable

COURSE TITLE: V-22 Multi Mode Radar Organizational Maintenance Course
COURSE DEVELOPER: Bell Helicopter Textron Inc.
COURSE INSTRUCTOR: Bell-Boeing Training Team
COURSE LENGTH: 5 Days
ACTIVITY DESTINATIONS EMD

LOCATION, UIC	BEGIN DATE	OFF	STUDENTS		CIV
			ENL		
NAWCAD Patuxent River, 00421	Apr 00		8		Input
			0.1		AOB
			0		Chargeable

NOTE: The initial training listed above has been prepared for the EMD Program. This training will be updated and used to satisfy operator and organizational level Phase II and Phase III training programs at IOC. This training will be tailored for Developmental Test and Operational Test cycles.

III.A.2. FOLLOW-ON TRAINING

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: M-601-XXXX, V-22 Power Plant /Rotor and Related Systems Organizational Maintenance

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USMC **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	40	0	58	0	92	0	120	ATIR
0	0	0	35	0	51	0	81	0	105	Output
0.0	0.0	0.0	6.8	0.0	9.9	0	15.6	0.0	20.3	AOB
0.0	0.0	0.0	6.8	0.0	9.9	0.0	15.6	0.0	20.3	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	165	0	196	0	217	0	236	0	255	ATIR
0	144	0	172	0	190	0	207	0	224	Output
0.0	27.9	0.0	33.3	0.0	36.8	0	40.1	0.0	43.3	AOB
0.0	27.9	0.0	33.3	0.0	36.8	0.0	40.1	0.0	43.3	Chargeable

CIN, COURSE TITLE: M-603-XXXX, V-22 Airframes and Hydraulic Systems Organizational Maintenance

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USMC **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	13	0	17	0	29	0	37	ATIR
0	0	0	11	0	15	0	24	0	32	Output
0.0	0.0	0.0	2.2	0.0	2.9	0	4.8	0.0	6.2	AOB
0.0	0.0	0.0	2.2	0.0	2.9	0.0	4.8	0.0	6.2	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	50	0	58	0	63	0	67	0	72	ATIR
0	44	0	51	0	55	0	59	0	63	Output
0.0	8.5	0.0	9.9	0.0	10.7	0	11.4	0.0	12.2	AOB
0.0	8.5	0.0	9.9	0.0	10.7	0.0	11.4	0.0	12.2	Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: M-602-XXX1, V-22 Avionics and Electrical Systems Organizational Maintenance

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USMC **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	16	0	24	0	38	0	46	ATIR
0	0	0	14	0	21	0	33	0	40	Output
0.0	0.0	0.0	2.9	0.0	4.3	0	6.8	0.0	8.2	AOB
0.0	0.0	0.0	2.9	0.0	4.3	0.0	6.8	0.0	8.2	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	68	0	81	0	89	0	97	0	105	ATIR
0	60	0	71	0	78	0	85	0	92	Output
0.0	12.3	0.0	14.6	0.0	16.0	0	17.5	0.0	18.9	AOB
0.0	12.3	0.0	14.6	0.0	16.0	0.0	17.5	0.0	18.9	Chargeable

III.A.2.b. PLANNED COURSES

AIR FORCE Annual Training Throughput

CIN, COURSE TITLE: M-601-XXXX, V-22 Power Plant /Rotor and Related Systems Organizational Maintenance
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USAF **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	0	0	10	0	39	0	57	ATIR
0	0	0	0	0	9	0	34	0	50	Output
0.0	0.0	0.0	0.0	0.0	0.4	0	1.7	0.0	2.5	AOB
0.0	0.0	0.0	0.0	0.0	0.4	0.0	1.7	0.0	2.5	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	63	0	76	0	82	0	96	0	55	ATIR
0	56	0	67	0	72	0	84	0	48	Output
0.0	2.8	0.0	3.3	0.0	3.6	0.0	4.2	0	2.4	AOB
0.0	2.8	0.0	3.3	0.0	3.6	0.0	4.2	0.0	2.4	Chargeable

CIN, COURSE TITLE: M-603-XXXX, V-22 Airframes and Hydraulic Systems Organizational Maintenance
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USAF **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	0	0	3	0	16	0	18	ATIR
0	0	0	0	0	3	0	14	0	16	Output
0.0	0.0	0.0	0.0	0.0	0.2	0	0.9	0.0	1.1	AOB
0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.9	0.0	1.1	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	25	0	24	0	26	0	31	0	19	ATIR
0	22	0	21	0	23	0	27	0	17	Output
0.0	1.5	0.0	1.4	0.0	1.5	0.0	1.8	0	1.1	AOB
0.0	1.5	0.0	1.4	0.0	1.5	0.0	1.8	0.0	1.1	Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: M-602-XXX2, V-22 Environmental and Electrical Systems Organizational Maintenance
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USAF **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	5	0	2	0	16	0	18	ATIR
0	0	0	4	0	2	0	14	0	16	Output
0.0	0.0	0.0	0.5	0.0	0.2	0	1.8	0.0	2.0	AOB
0.0	0.0	0.0	0.5	0.0	0.2	0.0	1.8	0.0	2.0	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	25	0	24	0	25	0	31	0	19	ATIR
0	23	0	21	0	22	0	27	0	17	Output
0.0	2.9	0.0	2.7	0.0	2.8	0.0	3.5	0	2.2	AOB
0.0	2.9	0.0	2.7	0.0	2.8	0.0	3.5	0.0	2.2	Chargeable

CIN, COURSE TITLE: M-602-XXX3, V-22 Integrated Avionics Systems Organizational Maintenance
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

SOURCE: USAF **STUDENT CATEGORY:** ACDU

FY00		FY01		FY02		FY03		FY04		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	0	0	0	0	7	0	29	0	44	ATIR
0	0	0	0	0	6	0	25	0	39	Output
0.0	0.0	0.0	0.0	0.0	1.6	0.0	6.6	0	10.1	AOB
0.0	0.0	0.0	0.0	0.0	1.6	0.0	6.6	0.0	10.1	Chargeable
FY05		FY06		FY07		FY08		FY09		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0	47	0	60	0	65	0	75	0	41	ATIR
0	41	0	53	0	57	0	66	0	36	Output
0.0	10.7	0.0	13.8	0.0	14.8	0.0	17.2	0	9.4	AOB
0.0	10.7	0.0	13.8	0.0	14.8	0.0	17.2	0.0	9.4	Chargeable

NOTE 1: These courses are scheduled to be RFT May 2001.

NOTE 2: This shows Marine Corps and Air Force student throughput requirements that were provided by ITRO and the USAF.

NOTE 3: The student throughput calculated by ITRO and the USAF were used to calculate the AOB and Chargeable.

NOTE 4: The ATIR was calculated with 14 percent attrition for training for both USMC and USAF.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the V-22 Osprey and, therefore, are not included in Part IV of this JTSP:

IV.C. Facility Requirements

IV.C.1. Facility Requirements Summary (Space/Support) by Activity

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

IV.A. TRAINING HARDWARE

IV.A.1. TTE / GPTE / SPTE / ST / GPETE / SPETE

CIN, COURSE TITLE: C-601-3626, V-22 Power Plants/Rotors and Related Systems Organizational Maintenance (Track M-601-XXXX)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

ITEM NUMBER	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE 001	T406-AD-400 Engine	1	Jan 02	GFE	Pending

CIN, COURSE TITLE: M-603-XXXX, V-22 Airframes and Hydraulic Systems Organizational Maintenance

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

ITEM NUMBER	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE 011	Composite Repair Kit	1	Oct 99	GFE	Pending

NOTE 1: As TTE requirements are identified, they will be incorporated into future updates to this JTSP.

NOTE 2: TTE repair parts are the responsibility of the contractor for the first year of operation. Follow-on support is to be provided through the Mission Training Support System.

NOTE 3: Other training designated test equipment and special tools of the V-22 will be identified by the contractor as part of the Weapon System Support Equipment Analysis Program.

NOTE 4: The contractor will provide a list of recommended general purpose/special purpose electronic test equipment used in the training program. Training on peculiar special purpose electronic test equipment will be provided during initial outfitting for each trainer. Special requirements are being developed by NAVAIRSYSCOM and the contractor to support the various Training Devices and Technical Training Equipment. When information becomes available, it will be included in the updates to this JTSP.

IV.A.2. TRAINING DEVICES

DEVICE: Cabin Part Task Trainer (CPTT)
DESCRIPTION: In accordance with Air Force Publication (AFP) 36-2211, Part Task Trainers (PTT) are operator trainers that enable selected aspects of a task (e.g., fuel system, hydraulic system, radar operation, etc.) to be practiced and a high degree of skill developed independently of other elements of the task. Specifically, the CV-22 CPTT enables practicing selected aspects of flight engineer cabin duties.
MANUFACTURER: Raytheon Systems
CONTRACT NUMBER: N00019-96-C-0188
TEE STATUS: TBD

TRAINING ACTIVITY: USAF Training site
LOCATION, UIC: Kirtland AFB, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Oct 03	Oct 03	Pending	USAF Pilot

DEVICE: Flight Training Device
DESCRIPTION: The Flight Training Device (FTD) is similar to the FFS, but without the motion system, and is designed to meet proficiency-training needs of the V-22 aircrews in instrument flight, emergency procedures, tactics, and to provide recurrent training for fleet squadrons.
MANUFACTURER: Bell Boeing (Subcontractor Flight Safety International)
CONTRACT NUMBER: N00019-96-C-0054
TEE STATUS: Pending

TRAINING ACTIVITY: EUCOM
LOCATION, UIC: European Command, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 05	Pending	USAF Pilot

TRAINING ACTIVITY: HMX-1
LOCATION, UIC: MCAF Quantico, 00262

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 07	Pending	USMC Pilot

TRAINING ACTIVITY: Norfolk (Res)
LOCATION, UIC: NAS Norfolk, 63102

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 10	Pending	USMC Pilot

IV.A.2. TRAINING DEVICES

TRAINING ACTIVITY: USAF Training Site
LOCATION, UIC: Hurlburt AFB, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 03	Pending	USAF Pilot

TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 01	Pending	V-22 Fleet Replacement Pilot Training Category I
		Sep 04		USMC Pilot
		Sep 05		USMC Pilot
		Sep 08		USMC Pilot

TRAINING ACTIVITY: Willow Grove (Res)
LOCATION, UIC: NAS Willow Grove, 68819

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 12	Pending	USMC Pilot

TRAINING ACTIVITY: HMT-301
LOCATION, UIC: MCAS Kaneohe Bay, 00318

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
2		Sep 06	Pending	USMC Pilot

TRAINING ACTIVITY: MCAS Futenma
LOCATION, UIC: MCAS Futenma, 63026

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
2		Sep 09	Pending	USMC Pilot

TRAINING ACTIVITY: NAMTRAGRU DET
LOCATION, UIC: MCAS Miramar, 60259

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
2		Sep 04	Pending	USMC Pilot

IV.A.2. TRAINING DEVICES

TRAINING ACTIVITY: Pacific Command
LOCATION, UIC: Pacific Command, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 06	Pending	USAF Pilot

TRAINING ACTIVITY: USAF CV-22
LOCATION, UIC: USAF Training Site, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 07	Pending	USAF Pilot

TRAINING ACTIVITY: USAF Training Site
LOCATION, UIC: Kirtland AFB, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 02 Sep 03 Sep 04	Pending	USAF Pilot USAF Pilot USAF Pilot

DEVICE: Full Flight Simulator
DESCRIPTION: The Full Flight Simulator (FFS) is a flight simulator with a full six degrees of freedom motion base and an attached full color day/dusk/night visual system. The FFS is designed to support V-22 Training and Readiness (T&R) syllabus, and will include a tactical environment simulation and support simulator-to-simulator networking. The FFS is designed to meet the initial training needs of the V-22 aircrews in the proper operation of the V-22 in all weather conditions, normal and emergency procedures, and Night Vision Goggle (NVG) operations. The FFS will be the mainstay of operator training for the Fleet Readiness Squadron (FRS).

MANUFACTURER: Bell Boeing (Subcontractor Flight Safety International)
CONTRACT NUMBER: N00019-96-C-0054
TEE STATUS: Pending

TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 99 Sep 01 Sep 03 Sep 04	Pending	V-22 Fleet Replacement Pilot Training Category I USMC Pilot USMC Pilot USMC Pilot

IV.A.2. TRAINING DEVICES

TRAINING ACTIVITY: NAMTRAGRU DET
LOCATION, UIC: MCAS Miramar, 60259

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 09	Pending	USMC Pilot

TRAINING ACTIVITY: USAF Training Site
LOCATION, UIC: Kirtland AFB, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sep 02 Sep 05	Pending	USAF Pilot USAF Pilot

DEVICE: Operational Flight Trainer (OFT) (2F151)
DESCRIPTION: This device is an operational flight system trainer with the capability of providing training in the development of Pilot skills and techniques in the V-22 aircraft. The OFT is able to simulate V-22 aircraft performance during cockpit preflight, aircraft start up, all flight operations in both conversion and fixed wing modes, navigational and instrument flight, aircraft shutdown and cockpit postflight procedures. The OFT cockpit mirrors the actual aircraft cockpit and is mounted on a six degrees of freedom, dome-based motion platform. The OFT is capable of simulating V-22 flight in all conditions to include dusk, night, and instrument meteorological conditions. The OFT is fully NVG compatible with FLIR simulation capabilities. Training environments will include operations at airfields, confined area landing sites, mountain areas, urban areas, low altitude flight areas, and aboard various aircraft capable ships such as the LHA and LHD. All aircraft maneuvers can be simulated to include normal flight procedures, autorotations, aerial refueling, formation flying, high altitude operations, low altitude operations, terrain following operations, and physiological conditioning. The OFT is capable of simulating all emergencies and system malfunctions both visually and through cockpit instrumentation. The OFT is planned to be Distributed Interactive Simulation (DIS) compliant with other OFTs. For Air Force specific training system fidelity requirements refer to the Air Force CV-22 STP.

MANUFACTURER: Raytheon Systems
CONTRACT NUMBER: N00019-96-C-0188
TEE STATUS: TBD

TRAINING ACTIVITY: HMX-1
LOCATION, UIC: MCAF Quantico, 00262

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Sept 07	Pending	USMC Pilot

IV.A.2. TRAINING DEVICES

TRAINING ACTIVITY: USAF CV-22
LOCATION, UIC: USAF Training Site, 00000

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Oct 04	Pending	USAF Pilot

TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Oct 99	May 01	Pending	USAF Pilot USMC Pilot
1	Oct 00	May 01	Pending	V-22 Fleet Replacement Pilot Training Category I USAF Pilot USMC Pilot
1		Oct 03	Pending	M-XXX-XXX2 USAF Pilot USMC Pilot

TRAINING ACTIVITY: HMT-301
LOCATION, UIC: MCAS Kaneohe Bay, 00318

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Oct 12	Pending	USMC Pilot

TRAINING ACTIVITY: MCAS Futenma
LOCATION, UIC: MCAS Futenma, 63026

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Oct 15	Pending	USMC Pilot

TRAINING ACTIVITY: NAMTRAGRU DET
LOCATION, UIC: MCAS Miramar, 60259

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Oct 11	Pending	USMC Pilot

IV.A.2. TRAINING DEVICES

TRAINING ACTIVITY: USAF CV-22
LOCATION, UIC: USAF Training Site, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		Oct 06	Pending	USAF Pilot

DEVICE: Avionics/Cockpit Management Display System
DESCRIPTION: Avionics/Cockpit Management Display System Composite Maintenance Trainer, device number 11H137, will provide a replica of all avionics controls and computer interfacing systems. This trainer will provide all services' avionics and electrical system maintenance personnel with the training to service and repair these systems and all associated subsystems.

MANUFACTURER: Bell-Boeing (Sub-contractor is Reflectone Incorporated)
CONTRACT NUMBER: N00019-93-C-0006
TEE STATUS: TBD

TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		May 01	Pending	C-602-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX1) C-102-3627 (Track M-602-XXX1) C-198-3626 (Track M-602-XXX1)

DEVICE: Cockpit Maintenance Procedures Trainer (CMPT)
DESCRIPTION: The CMPT, device number 11H138 is a replica of all cockpit systems and functions that will consist of four-student operator and one Instructor Operator Station (IOS). The CMPT will provide to all the services' organizational maintenance personnel the training necessary to use the cockpit computers and BIT for initial troubleshooting and fault isolation to major aircraft subsystems (i.e., power plant, electric, hydraulic, etc.)

MANUFACTURER: Bell-Boeing (Sub-contractor is Reflectone Incorporated)
CONTRACT NUMBER: N00019-93-C-0006
TEE STATUS: TBD

TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		May 01	Pending	C-601-3626 (Track M-601-XXXX) C-600-3180 (Track M-601-XXXX) C-603-3626 (Track M-603-XXXX) C-603-3627 (Track M-603-XXXX) C-602-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX1) C-102-3627 (Track M-602-XXX1) C-198-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX2) C-602-3627 (Track M-602-XXX2)

IV.A.2. TRAINING DEVICES

DEVICE: Hydraulic/Flight Control/Wing Stow Composite
DESCRIPTION: Hydraulic/Flight Control/Wing Stow Composite Maintenance Trainer, device number 11H135, will be a replica of the hydraulic, flight controls, and wing stowage components. It will be designed to provide all the services' organizational maintenance personnel with realistic training in the servicing and repair of these systems and their associated subsystems.
MANUFACTURER: Bell-Boeing (Sub-contractor is Reflectone Incorporated)
CONTRACT NUMBER: N00019-93-C-0006
TEE STATUS: TBD
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		May 01	Pending	C-601-3626 (Track M-601-XXXX) C-600-3180 (Track M-601-XXXX) C-603-3626 (Track M-603-XXXX) C-603-3627 (Track M-603-XXXX) C-602-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX1) C-102-3627 (Track M-602-XXX1) C-198-3626 (Track M-602-XXX1)

DEVICE: Instructor Operator Station
DESCRIPTION: This trainer, device number 11H160, will be capable of controlling the normal operating performance of the NAMTS, malfunction insertion, emergency shut-off, and monitoring and recording individual student performance. The Operator Station controls all of the aviation maintenance trainers and interfaces with all maintenance training courses taught on the NAMTS.
MANUFACTURER: Bell-Boeing (Sub-contractor is Reflectone Incorporated)
CONTRACT NUMBER: N00019-93-C-0006
TEE STATUS: TBD
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		May 99	Pending	C-601-3626 (Track M-601-XXXX) C-600-3180 (Track M-601-XXXX) C-602-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX1) C-102-3627 (Track M-602-XXX1) C-198-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX2) C-602-3627 (Track M-602-XXX2)

IV.A.2. TRAINING DEVICES

DEVICE: Landing Gear/Fuel/Environmental Control Composite
DESCRIPTION: Landing Gear/Fuel/Environmental Control Composite Maintenance Trainer, device number 11H134, will be a replica of the fuel control, landing gear, and environmental control systems. It will be designed to provide all the services' organizational maintenance personnel with realistic training in the servicing and repair of these systems and their associated subsystems.
MANUFACTURER: Bell-Boeing (Sub-contractor is Reflectone Incorporated)
CONTRACT NUMBER: N00019-93-C-0006
TEE STATUS: TBD
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		May 01	Pending	C-601-3626 (Track M-601-XXXX) C-600-3180 (Track M-601-XXXX) C-602-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX1) C-102-3627 (Track M-602-XXX1) C-198-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX2) C-602-3627 (Track M-602-XXX2)

DEVICE: Power Plant/Power Train Composite Maintenance Trainer
DESCRIPTION: Power Plant/Power Train Composite Maintenance Trainer, device number 11H136 will be a replica of the power plants, power train, and associated systems. This trainer will provide all the services' organizational power plant technicians with realistic training in the servicing, repair, removal, and replacement of major power plant components and associated systems.
MANUFACTURER: Bell-Boeing (Sub-contractor is Reflectone Incorporated)
CONTRACT NUMBER: N00019-93-C-0006
TEE STATUS: TBD
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1		May 01	Pending	C-601-3626 (Track M-601-XXXX) C-600-3180 (Track M-601-XXXX) C-602-3626 (Track M-602-XXX1) C-102-3626 (Track M-602-XXX1) C-102-3627 (Track M-602-XXX1) C-198-3626 (Track M-602-XXX1)

IV.B. COURSEWARE REQUIREMENTS

IV.B.1. TRAINING SERVICES

COURSE / TYPE OF TRAINING	SCHOOL LOCATION, UIC	DATE BEGIN	NO. OF PERSONNEL	MAN WEEKS REQUIRED
V-22 Pilot Ground School/Pilot Ground School Basic/Pilot Ground Refresher Course	NAWCAD Patuxent River 00421	Mar 99	2	8.4
V-22 Pilot Ground School/Pilot Ground School Basic/Pilot Ground Refresher Course	NAWCAD Patuxent River 00421	Jun 99	2	8.4
V-22 Pilot Flight Training	NAWCAD Patuxent River 00421	Mar 99	2	1.6
V-22 Pilot Flight Training	NAWCAD Patuxent River 00421	Jun 99	2	1.6
V-22 Aircraft Familiarization Course	NAWCAD Patuxent River 00421	May 99	2	0.8
V-22 Aircraft Familiarization Course	NAWCAD Patuxent River 00421	Jul 99	2	0.8
V-22 Aircraft Familiarization Course	NAWCAD Patuxent River 00421	Jul 99	2	0.8
V-22 Aircrew Familiarization Course	NAWCAD Patuxent River 00421	Jul 99	2	5.2
V-22 Power Plants and Related Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	10
V-22 Power Plants and Related Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 99	2	10
V-22 Airframe Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	6
V-22 Airframe Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 99	2	6
V-22 Hydraulic Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	4
V-22 Hydraulic Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 99	2	4
V-22 Environmental Control Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 96	2	4
V-22 Communication/Navigation/Identification Organizational Maintenance Course	NAWCAD Patuxent River 00421	May 99	2	6

IV.B.1. TRAINING SERVICES

COURSE / TYPE OF TRAINING	SCHOOL LOCATION, UIC	DATE BEGIN	NO. OF PERSONNEL	MAN WEEKS REQUIRED
V-22 Communication/Navigation/Identification Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 99	2	6
V-22 Forward Looking Infrared Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	2
V-22 Electronic Countermeasures Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	1.2
V-22 Electronic Countermeasures Organizational Maintenance Course	NAWCAD Patuxent River 00421	Aug 99	2	1.2
V-22 Electrical Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	May 99	2	6
V-22 Electrical Systems Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 99	2	6
V-22 Flight Control System Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	6
V-22 Flight Control System Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jul 99	2	6
V-22 Cockpit Management System Organizational Maintenance Course	NAWCAD Patuxent River 00421	May 99	2	4
V-22 Cockpit Management System Organizational Maintenance Course	NAWCAD Patuxent River 00421	Jun 99	2	4
V-22 Multi Mode Radar Organizational Maintenance Course	NAWCAD Patuxent River 00421	Apr 00	2	2

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: V-22 Fleet Replacement Pilot Training Category I

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: USAF Pilot, V-22 USAF Pilot Proficiency Training

TRAINING ACTIVITY: USAF CV-22

LOCATION, UIC: USAF Training Site, 00000

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
USAF curricula materials will be produced under separate contract in accordance with USAF instruction.	1 set	Oct 05	Pending

CIN, COURSE TITLE: USMC Pilot, V-22 Pilot Proficiency Training

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Apr 01	Pending
Wall Charts and Transparencies	1 set	Apr 01	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Apr 01	Pending
Student Work Books	1 set	Apr 01	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: M-XXX-XXXX, Basic Enlisted V-22 Aircrewman

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: USMC Aircrew, V-22 Enlisted Aircrew Training

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Apr 01	Pending
Wall Charts and Transparencies	1 set	Apr 01	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Apr 01	Pending
Student Work Books	1 set	Apr 01	Pending

CIN, COURSE TITLE: C-601-3626, V-22 Power Plants/Rotors and Related Systems Organizational Maintenance (Track M-601-XXXX)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-600-3180, Basic Mechanic (USN and USMC only) (Track M-601-XXXX)

TRAINING ACTIVITY: VM MT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-602-3626, V-22 Connector and Wiring Harness Repair/Manufacturing (Track M-602-XXX1)

TRAINING ACTIVITY: VM MT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-102-3626, V-22 Electrical Systems Organizational Maintenance (Track M-602-XXX1)

TRAINING ACTIVITY: VM MT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-102-3627, V-22 Avionics Systems Organizational Maintenance (Track M-602-XXX1)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-198-3626, V-22 Cockpit Management Display Systems (Track M-602-XXX1)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-102-3626, V-22 Electrical Systems Organizational Maintenance (Track M-602-XXX2)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-602-3627, V-22 Environmental Control Miscellaneous Utilities/Egress Systems Organizational Maintenance (Track M-602-XXX2)

TRAINING ACTIVITY: VM MT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-602-3626, V-22 Connector and Wiring Harness Repair/Manufacturing (Track M-602-XXX3)

TRAINING ACTIVITY: VM MT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-198-3626, V-22 Cockpit Management Display Systems (Track M-602-XXX3)

TRAINING ACTIVITY: VM MT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-102-3628, CV-22 Avionics Systems Organizational Maintenance (Track M-602-XXX3)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-603-3626, Hydraulic Systems Organizational Maintenance (Track M-603-XXXX)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

CIN, COURSE TITLE: C-603-3627, V-22 Airframes Systems Organizational Maintenance (USN and USMC only) (Track M-603-XXXX)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
A list of recommended training aid hardware and software will be provided by the contractor.	1 set	Oct 99	Pending
Curriculum Outline and Instructor Guides	1 set	Oct 99	Pending
Wall Charts and Transparencies	1 set	Oct 99	Pending
Student Evaluation Forms/End of Course Evaluations	1 set	Oct 99	Pending
Student Work Books	1 set	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: V-22 Fleet Replacement Pilot Training Category I
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD NATOPS Flight Manual for Pilots	CD ROM	TBD	Oct 99	Pending
TBD Pilots Pocket Checklist	CD ROM	TBD	Oct 99	Pending
TBD Functional Check Flight Checklist	CD ROM	TBD	Oct 99	Pending
TBD Crewchief Pocket Checklist	CD ROM	TBD	Oct 99	Pending
TBD NATOPS Functional Check Flight Checklist	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: USMC Pilot, V-22 Pilot Proficiency Training
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Pilots Pocket Checklist	CD ROM	TBD	Oct 99	Pending
TBD NATOPS Functional Check Flight Checklist	CD ROM	TBD	Oct 99	Pending
TBD Functional Check Flight Checklist	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: M-XXX-XXXX, Basic Enlisted V-22 Aircrewman
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD NATOPS Flight Manual for Aircrew	CD ROM	TBD	Oct 99	Pending
TBD Crewchief Pocket Checklist	CD ROM	TBD	Oct 99	Pending
TBD Daily Inspection and Servicing Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Daily/Servicing Maintenance Requirements	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: USMC Aircrew, V-22 Enlisted Aircrew Training
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Crewchief Pocket Checklist	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-601-3626, V-22 Power Plants/Rotors and Related Systems Organizational Maintenance (Track M-601-XXXX)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Daily Inspection and Serviceing Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Power Plants Maintenance Instruction Manual	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Functional Check Flight Checklist	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Crewchief Pocket Checklist	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Daily/Serviceing Maintenance Requirements	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-600-3180, Basic Mechanic (USN and USMC only) (Track M-601-XXXX)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Functional Check Flight Checklist	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Servicing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Daily/Servicing Maintenance Requirements	CD ROM	TBD	Oct 99	Pending
TBD Crewchief Pocket Checklist	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Power Plants Maintenance Instruction Manual	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Daily Inspection and Servicing Requirements Manual	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-602-3626, V-22 Connector and Wiring Harness Repair/Manufacturing (Track M-602-XXX1)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Avionics Maintenance Manual	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-102-3626, V-22 Electrical Systems Organizational Maintenance (Track M-602-XXX1)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Avionics Maintenance Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

TBD CD ROM TBD Oct 99 Pending
 Special Inspection and Preservation Requirements

CIN, COURSE TITLE: C-102-3627, V-22 Avionics Systems Organizational Maintenance (Track M-602-XXX1)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Avionics Maintenance Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-198-3626, V-22 Cockpit Management Display Systems (Track M-602-XXX1)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Avionics Maintenance Manual	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

TBD Periodic Maintenance Information Daily/Service Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-102-3626, V-22 Electrical Systems Organizational Maintenance (Track M-602-XXX2)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Service Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Environmental, Utility, and Egress Maintenance Manual	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

CIN, COURSE TITLE: C-602-3627, V-22 Environmental Control Miscellaneous Utilities/Egress Systems Organizational Maintenance (Track M-602-XXX2)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Periodic Maintenance Information Daily/Service Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Environmental, Utility, and Egress Maintenance Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: M-602-XXX3, CV-22 Integrated Avionics Systems Organizational Maintenance

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Electrical, Instrument, and AFCS Maintenance Instruction Manuals	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-602-3626, V-22 Connector and Wiring Harness Repair/Manufacturing (Track M-602-XXX3)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-198-3626, V-22 Cockpit Management Display Systems (Track M-602-XXX3)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-102-3628, CV-22 Avionics Systems Organizational Maintenance (Track M-602-XXX3)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-603-3626, Hydraulic Systems Organizational Maintenance (Track M-603-XXXX)
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Daily Inspection and Servicing Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Hydraulics System Maintenance Instruction Manual	CD ROM	TBD	Oct 99	Pending
TBD Airframes System Maintenance Instruction Manual	CD ROM	TBD	Oct 99	Pending

IV.B.3. TECHNICAL MANUALS

TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Daily/Serviceing Maintenance Requirements	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending

CIN, COURSE TITLE: C-603-3627, V-22 Airframes Systems Organizational Maintenance (USN and USMC only) (Track M-603-XXXX)

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXX

TECHNICAL MANUAL NUMBER / TITLE	MEDIUM	QTY REQD	DATE REQD	STATUS
TBD V-22 Work Unit Code Manual	CD ROM	TBD	Oct 99	Pending
TBD Aircraft Wiring Manual	CD ROM	TBD	Oct 99	Pending
TBD Special Inspection and Preservation Requirements	CD ROM	TBD	Oct 99	Pending
TBD Phase Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Periodic Maintenance Information Daily/Serviceing Maintenance Requirements Manual	CD ROM	TBD	Oct 99	Pending
TBD Daily/Serviceing Maintenance Requirements	CD ROM	TBD	Oct 99	Pending
TBD Maintenance Requirements Cards	CD ROM	TBD	Oct 99	Pending
TBD Hydraulics System Maintenance Instruction Manual	CD ROM	TBD	Oct 99	Pending
TBD Airframes System Maintenance Instruction Manual	CD ROM	TBD	Oct 99	Pending
TBD Illustrated Parts Breakdown	CD ROM	TBD	Oct 99	Pending
TBD Daily Inspection and Servicing Requirements Manual	CD ROM	TBD	Oct 99	Pending

NOTE: Quantity of each manuals required at each site is yet to be determined. All technical manuals will be in the Interactive Electronics Technical Manuals format.

IV.C. FACILITY REQUIREMENTS

IV.C.2. FACILITY REQUIREMENTS DETAILED BY ACTIVITY AND COURSE

CIN, COURSE TITLE: NA
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River XXXXXX
BUILDING AND ROOM NUMBER: AS 510, Aviation Maintenance Training Facility
TYPE OF FACILITY PROJECT: MILCON
FACILITY PROJECT NUMBER: P-585
REQUIRED PROJECT AWARD DATE: Dec 97
REQUIRED UCD: Nov 99
REQUIRED RFT DATE: May 02
STATUS: In work

CIN, COURSE TITLE: NA
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River XXXXXX
BUILDING AND ROOM NUMBER: Aircraft Maintenance Hanger
TYPE OF FACILITY PROJECT: MILCON
FACILITY PROJECT NUMBER: P-526
REQUIRED PROJECT AWARD DATE: Jan 02
REQUIRED UCD: Jan 04
REQUIRED RFT DATE: Mar 99
STATUS: Pending

CIN, COURSE TITLE: NA
TRAINING ACTIVITY: VMMT-204
LOCATION, UIC: MCAS New River XXXXX
BUILDING AND ROOM NUMBER: AS 518, Simulator Building Addition
TYPE OF FACILITY PROJECT: Alteration
FACILITY PROJECT NUMBER: P-617
REQUIRED PROJECT AWARD DATE: TBD
REQUIRED UCD: TBD
REQUIRED RFT DATE: TBD
STATUS: Pending

IV.C.3. FACILITY PROJECT SUMMARY BY PROGRAM

TRAINING ACTIVITY: VMMT-204

LOCATION, UIC: MCAS New River, XXXXXX

PROJECT NUMBER	TOTAL SCOPE	PROJECTED AWARD DATE	PROJECTED UCD	STATUS
P-585		Dec 97	Nov 99	In work
P-526		Jan 02	Jan 02	Pending
P-617		TBD	TBD	Pending

PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
ACNO (MPT)	Promulgate Update JTP.	Jan 92	Completed
TSA	Sign Engineering, Manufacturing, and Development Contract.	Oct 92	Completed
TSA	Begin Initial Training.	Aug 94	Completed
TSA	Begin Training Advisory Services.	Aug 94	Completed
TSA	Approve V-22 Milestone II+.	Sep 94	Completed
TSA	Acquisition Decision Memorandum.	Feb 95	Completed
ACNO (MPT)	Promulgate Update JTP.	Aug 95	Completed
TSA	Conduct JTP Conference.	Nov 95	Completed
CMC	Begin Ordering Enlisted Personnel (USMC MMEA-84).	FY97	Completed
CMC	Begin Ordering Officer Personnel (USMC MMOA-2).	FY97	Completed
TSA	Award Curriculum Material and Maintenance Training Devices Contract.	FY97	Completed
ACNO/CMC	Promulgate OPNAV Form 1000/2 (USN) or T/O.	FY98	Completed
ACNO/CMC	Allocate Fleet, Instructor, Support, and Student Billets.	FY98	In work
CMC (MM)	Order Instructors and Support Personnel.	FY98	In work
ACNO/DMSO	Initiate OPNAV Form 1000/4A.	FY99	Pending
OPTEVFOR	Begin OPEVAL.	FY99	Pending
TSA	Deliver Curricula Materials.	FY99	Pending
TSA	Deliver Technical Training Equipment.	FY99	Pending
AFPC	Begin Programming for Officer Training.	FY00	Pending
AFPC	Order Instructors and Support Personnel.	FY00	Pending
OPTEVFOR	Complete MV-22 OPEVAL.	FY00	Pending
TSA	Begin VMMT-204 Cadre Training.	FY00	Pending
PDA	Initial Operating Capability for MV-22 USMC.	FY01	Pending
TA	Begin Transition and Follow-on/Replacement Training.	FY01	Pending
OPTEVFOR	Begin CV-22 IOT&E.	FY02	Pending

PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
NAVICP	Achieve Material Support Date.	FY04	Pending
NAVICP	Achieve Government Support Date.	FY05	Pending
PDA	USAF Initial Operating Capability for CV-22.	FY05	Pending

PART VI - DECISION ITEMS/ACTION REQUIRED

ACTION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
Intermediate Level Engine Maintenance Training for the Initial Fleet Cadre Training.	NAVAIRSYSCOM		Closed
Navy Combat Search and Rescue (CSAR) Training.	CNO		Open
Verification of Technical Manuals.	CNO		Open
Air Force Participation in Joint Aircrew Training.	HQ USAF		Open
Training Requirements for the Air Force.	HQ USAF		Closed
Training Track Length and "A" School Prerequisites for MOS 6325.	NAVAIRSYSCOM		Open
Navy Manning and Basing Requirements.	NAVPERSCOM		Open
V-22 Aircrew Training.	HMX-1 (MOTT)		Open
Follow-on FRS Training Concept.	MCCDC (T&E)		Open
Navy and Air Force Staffing Plans.	HQ USAF, BUPERS		Open
USAF Manning and Basing Requirements.	HQ USAF		Open
Role of NAMTRAGRU and FRS/Consolidated Maintenance Training Unit.	OPNAV/N889		Open
Memorandum of Agreement.	HQ USAF/CNO/CMC	Jun 98	Closed

PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
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PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

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PART VII - POINTS OF CONTACT

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Appendix A

V-22 Program Organizational Chart Extracts

Program Org Chart Extracts

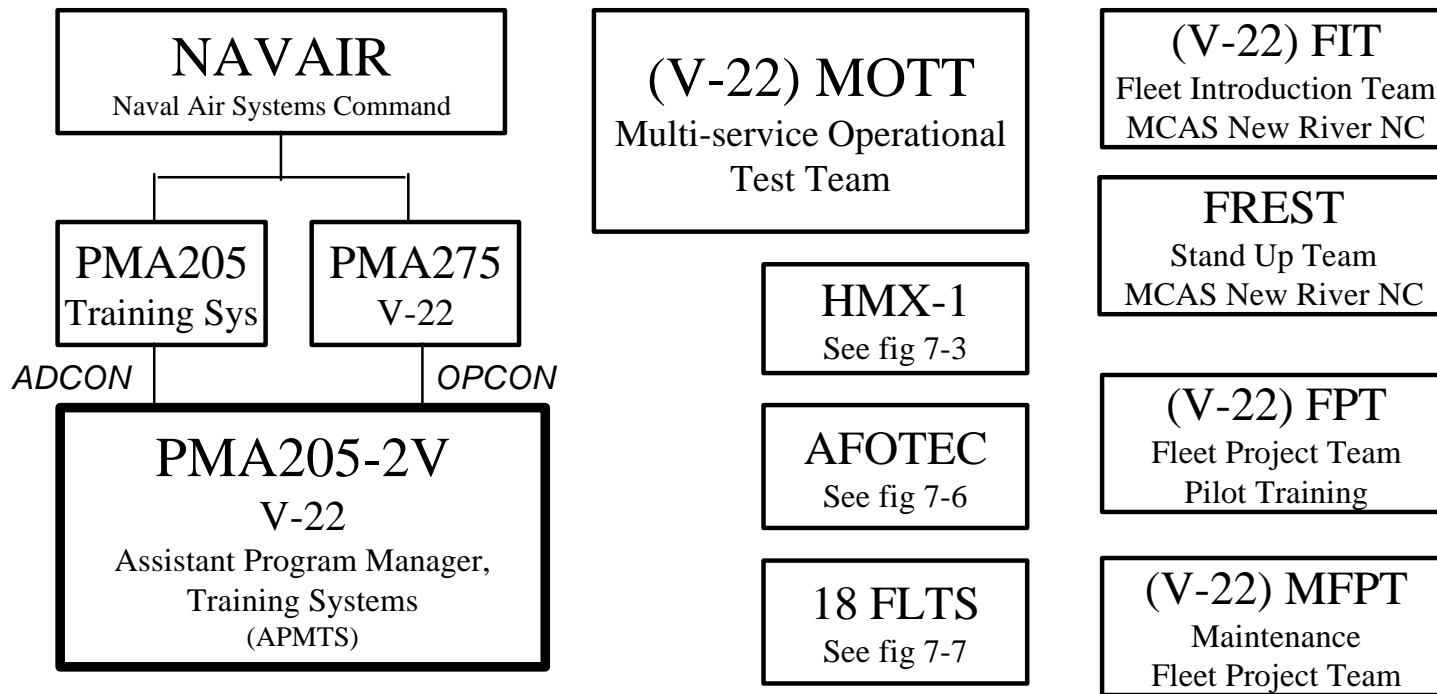


Figure 7-1

Navy Landscape

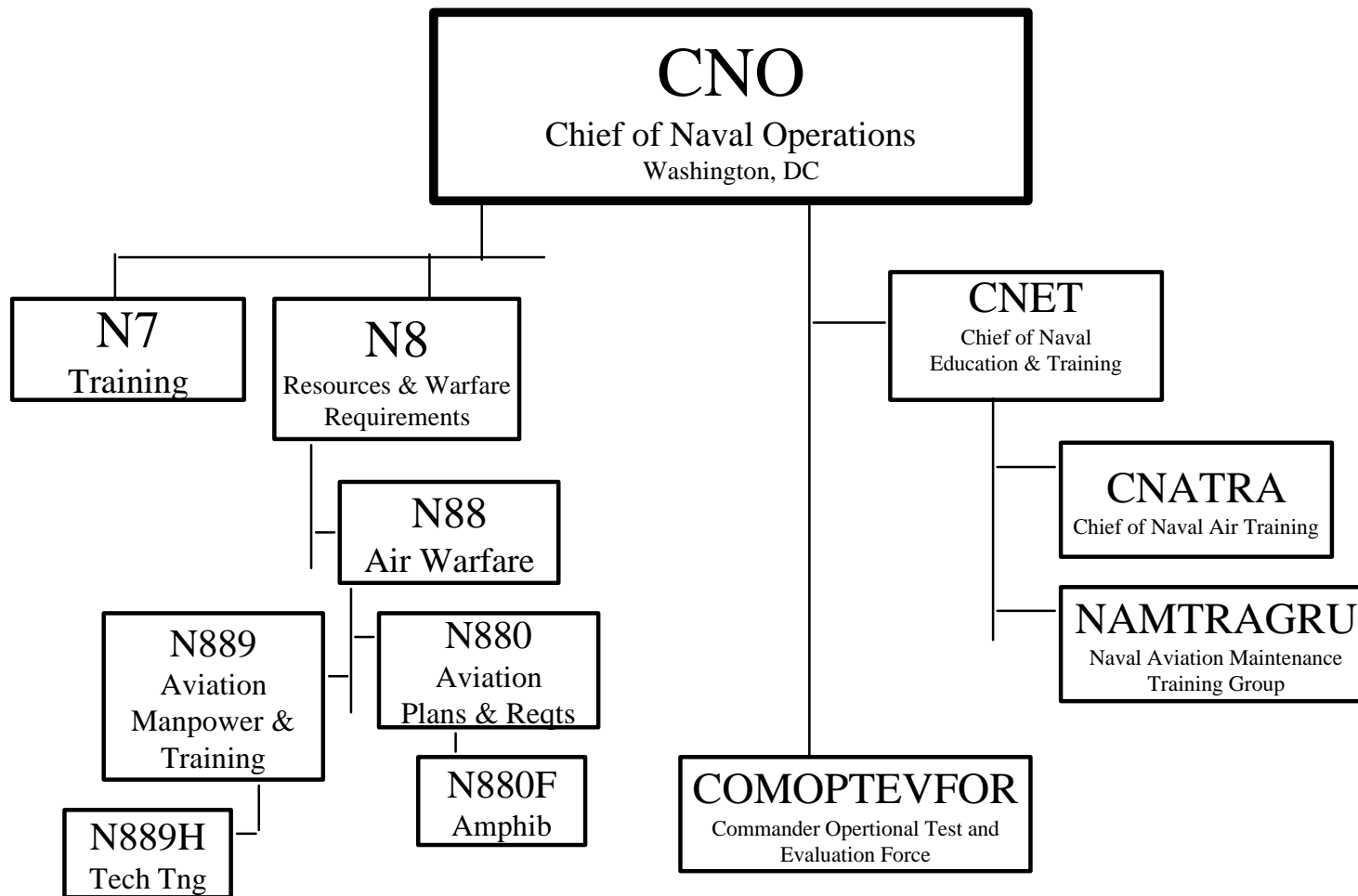


Figure 7-2

Marine Corps Landscape

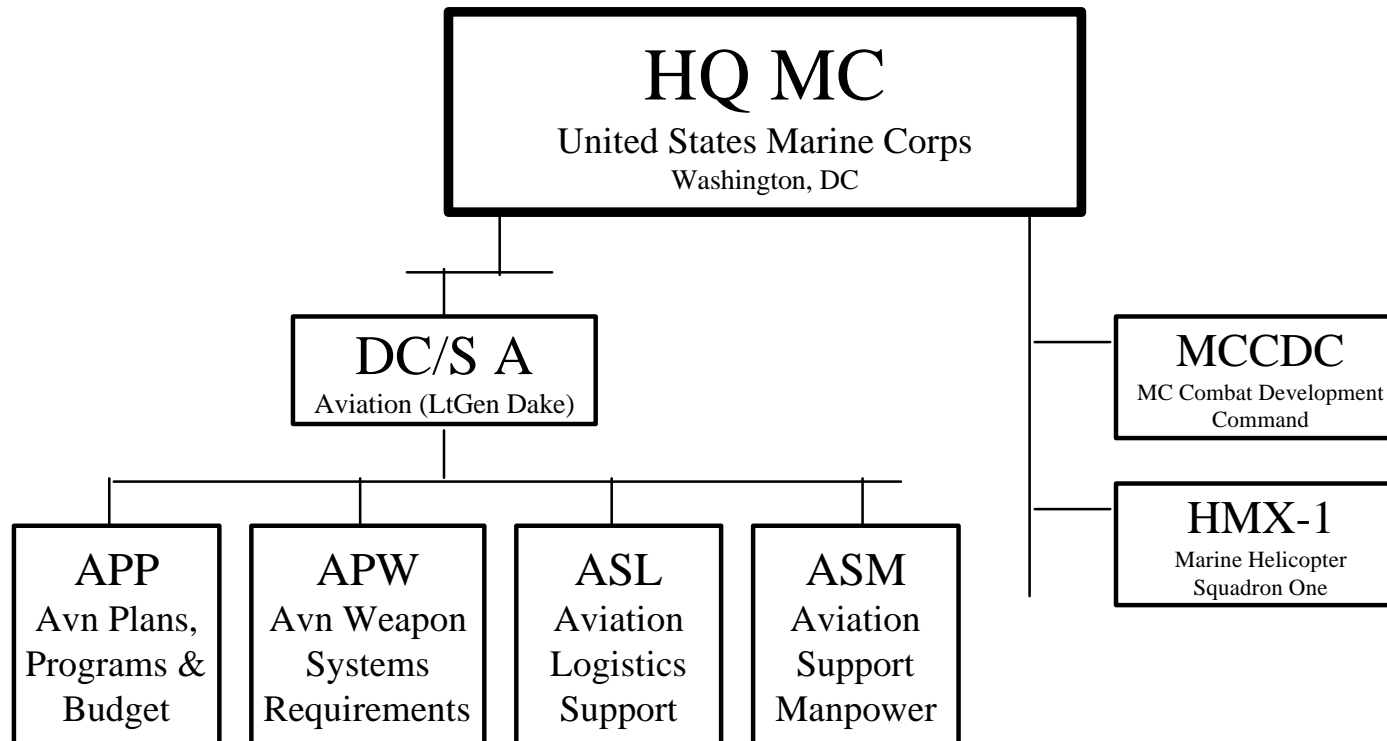


Figure 7-3

MCCDC Landscape

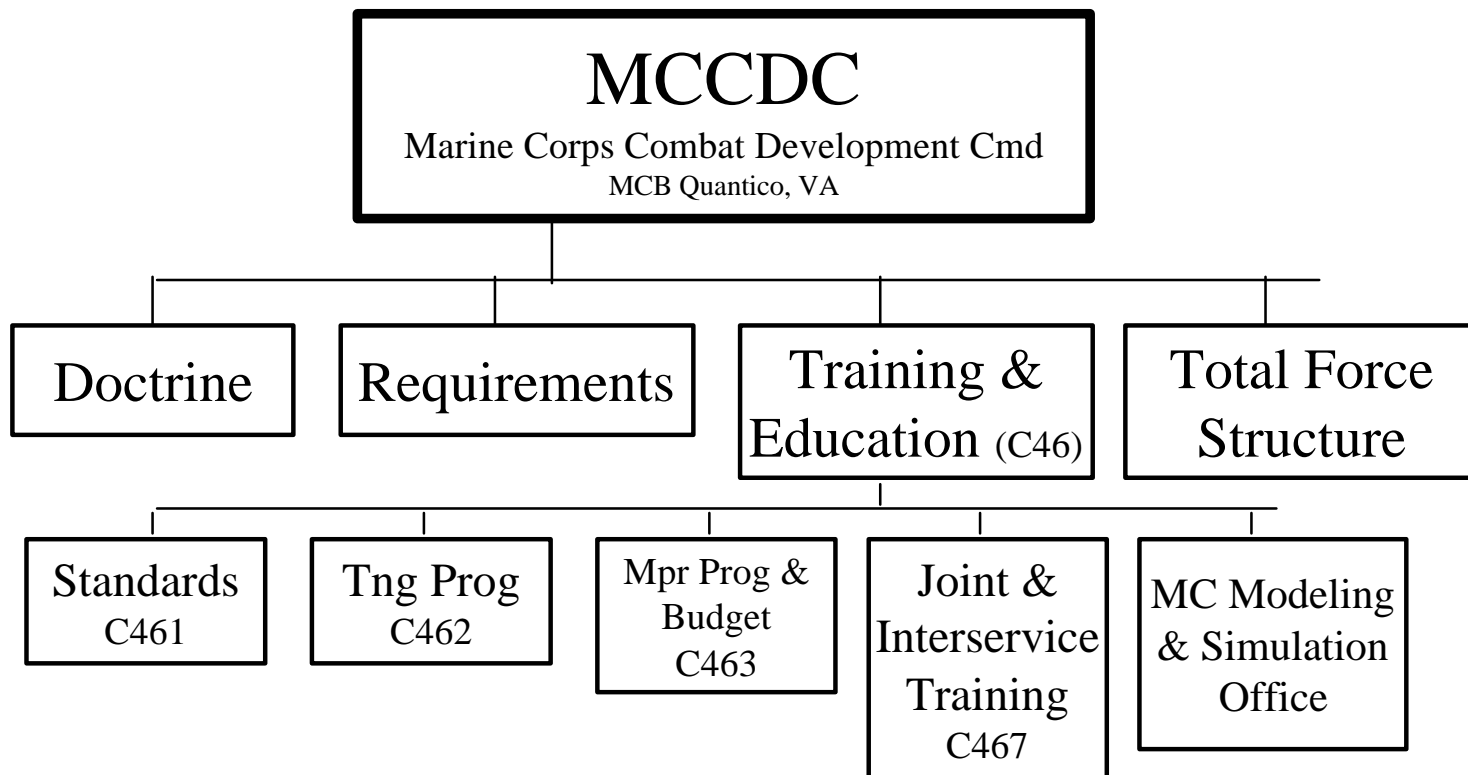


Figure 7-4

SOCOM Landscape

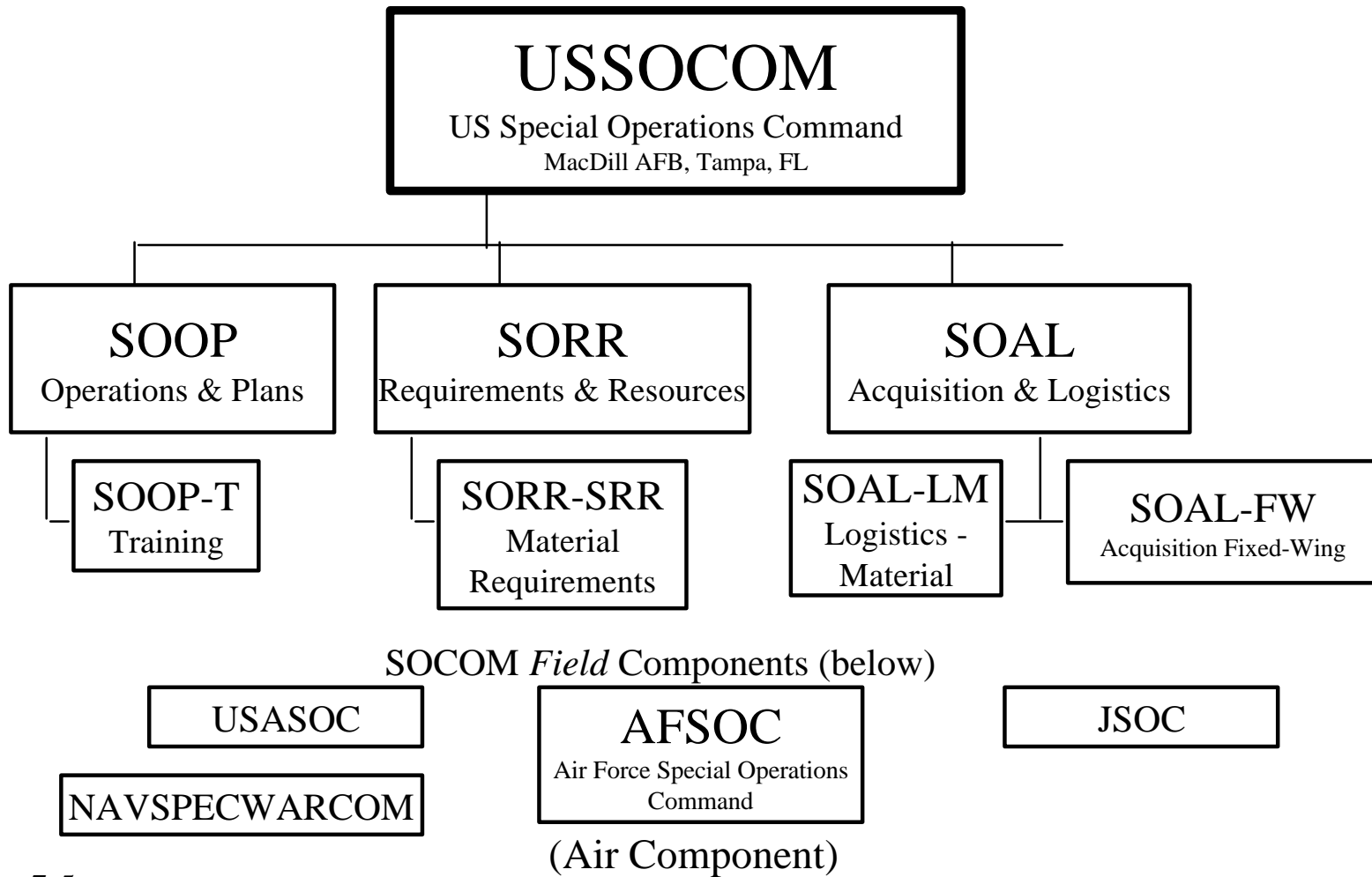


Figure 7-5

Air Force Landscape

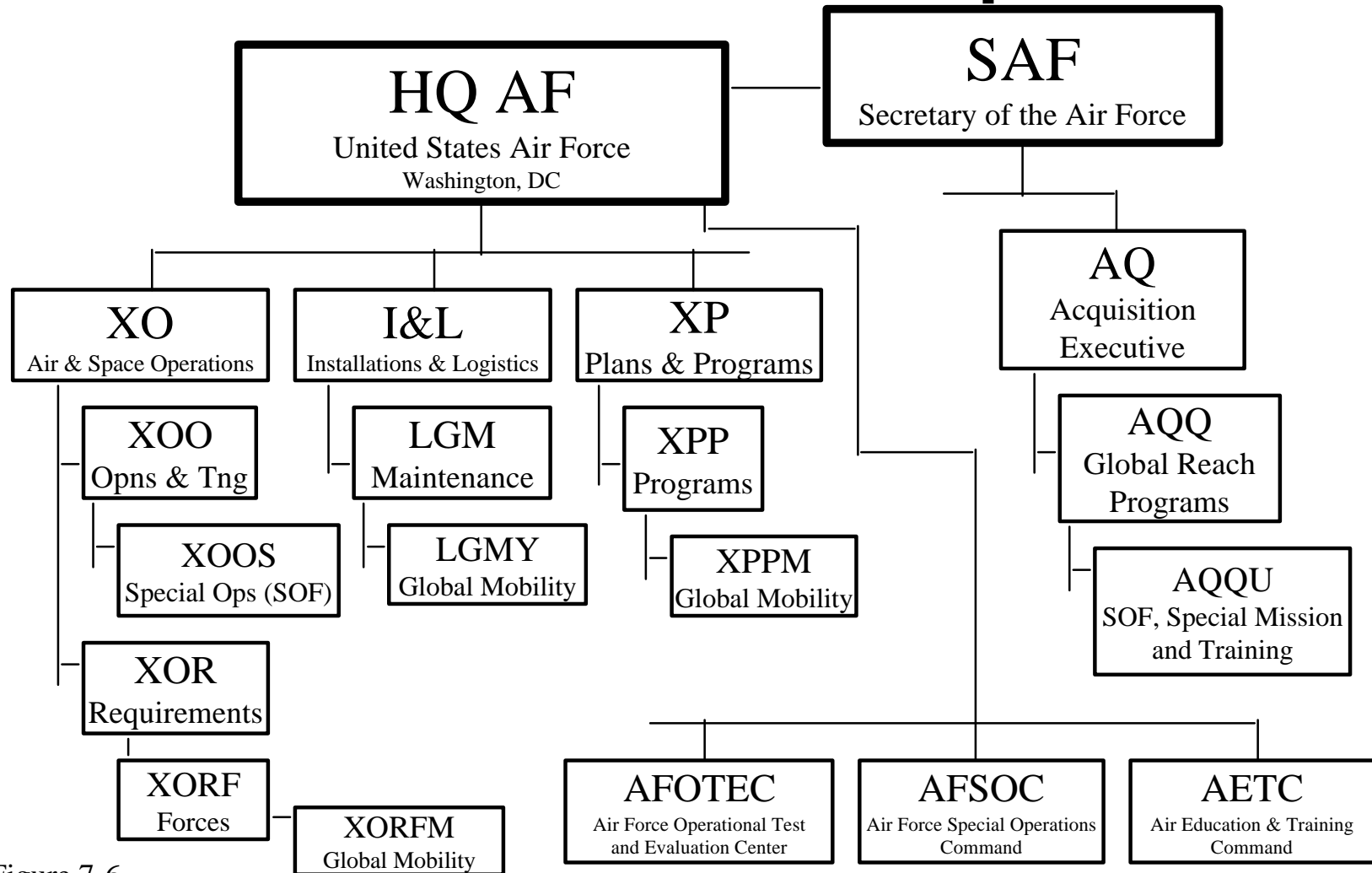


Figure 7-6

AFSOC Landscape

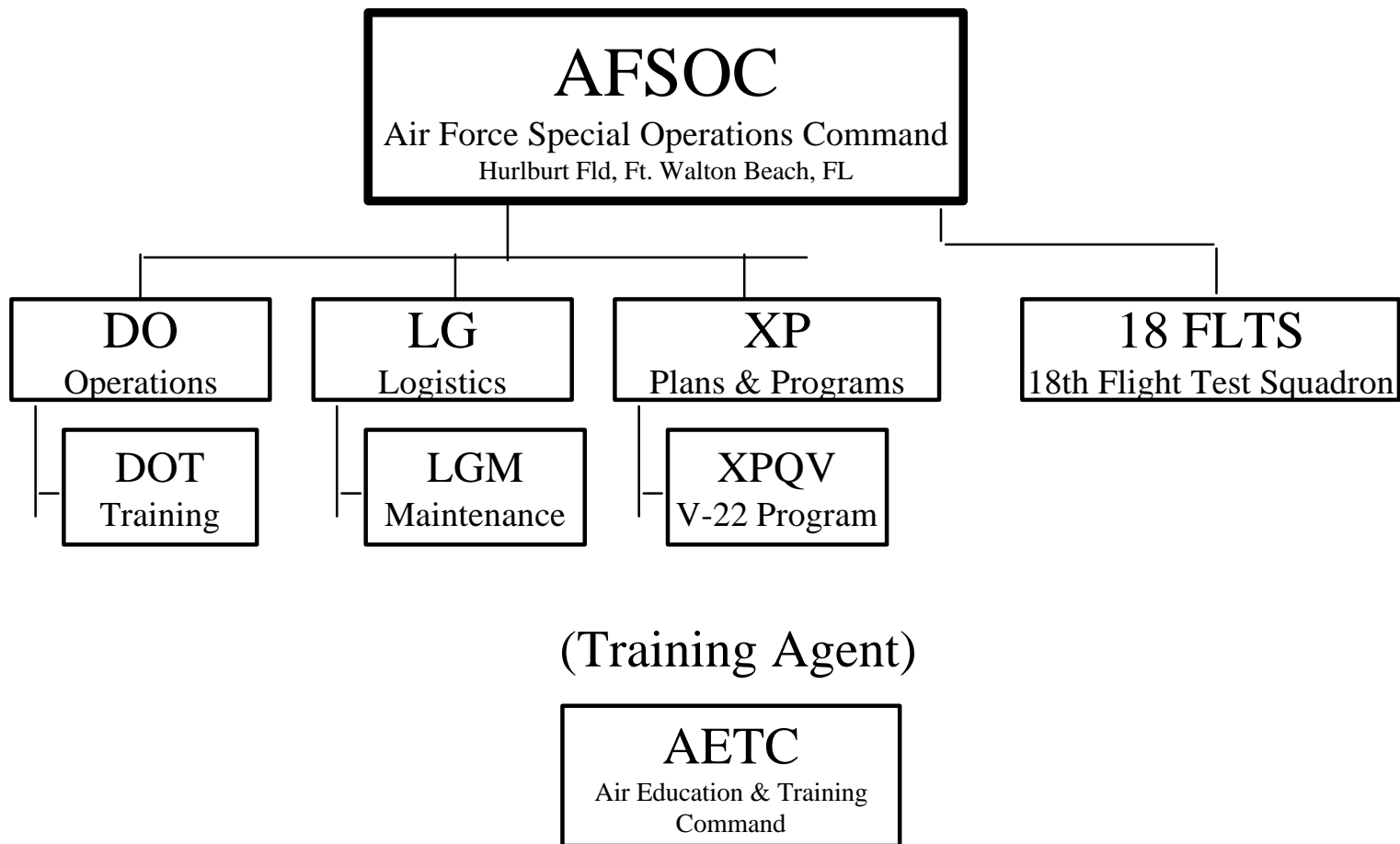


Figure 7-7

AETC Landscape

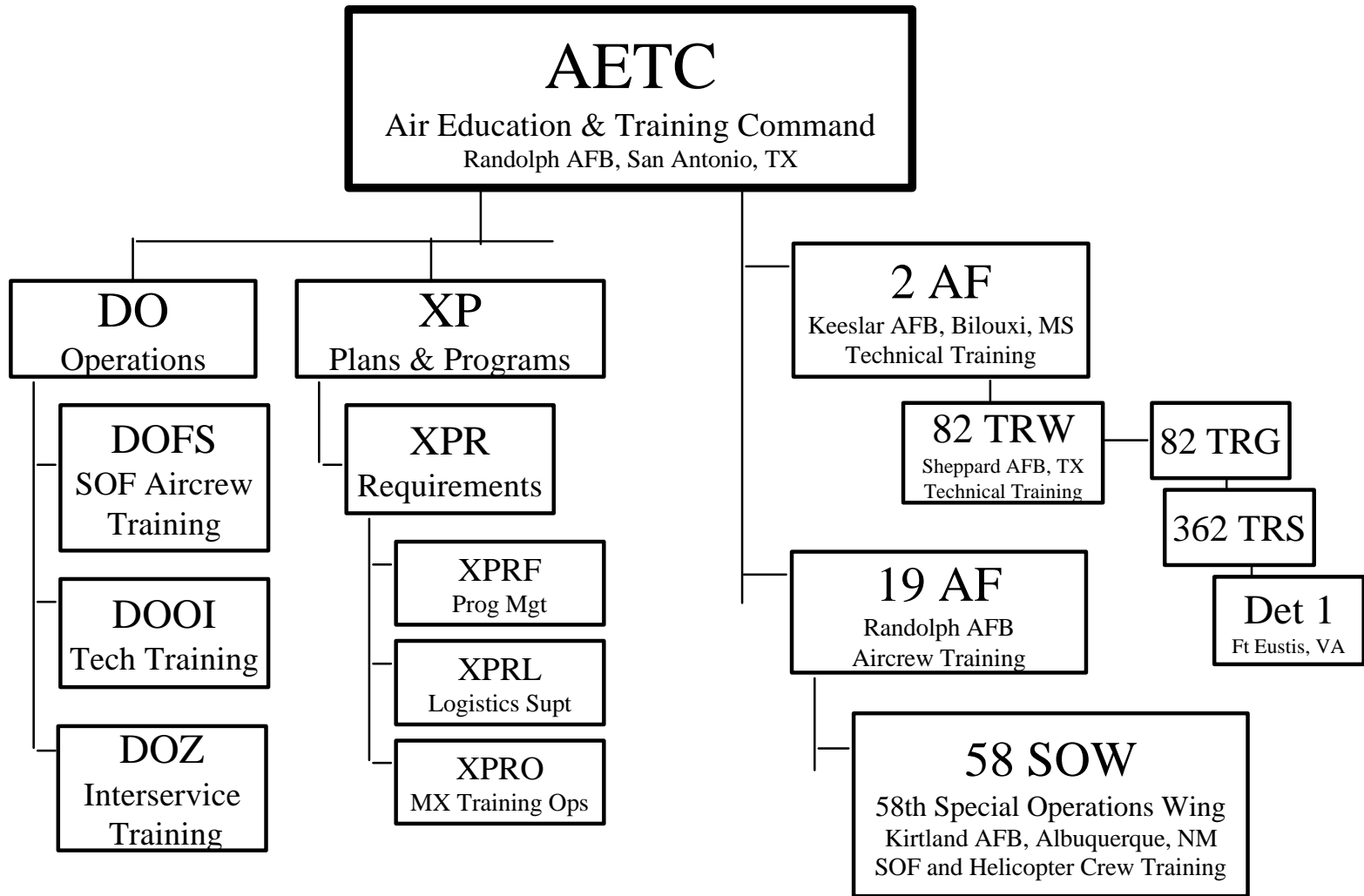


Figure 7-8

MV-22 Training Site Landscape

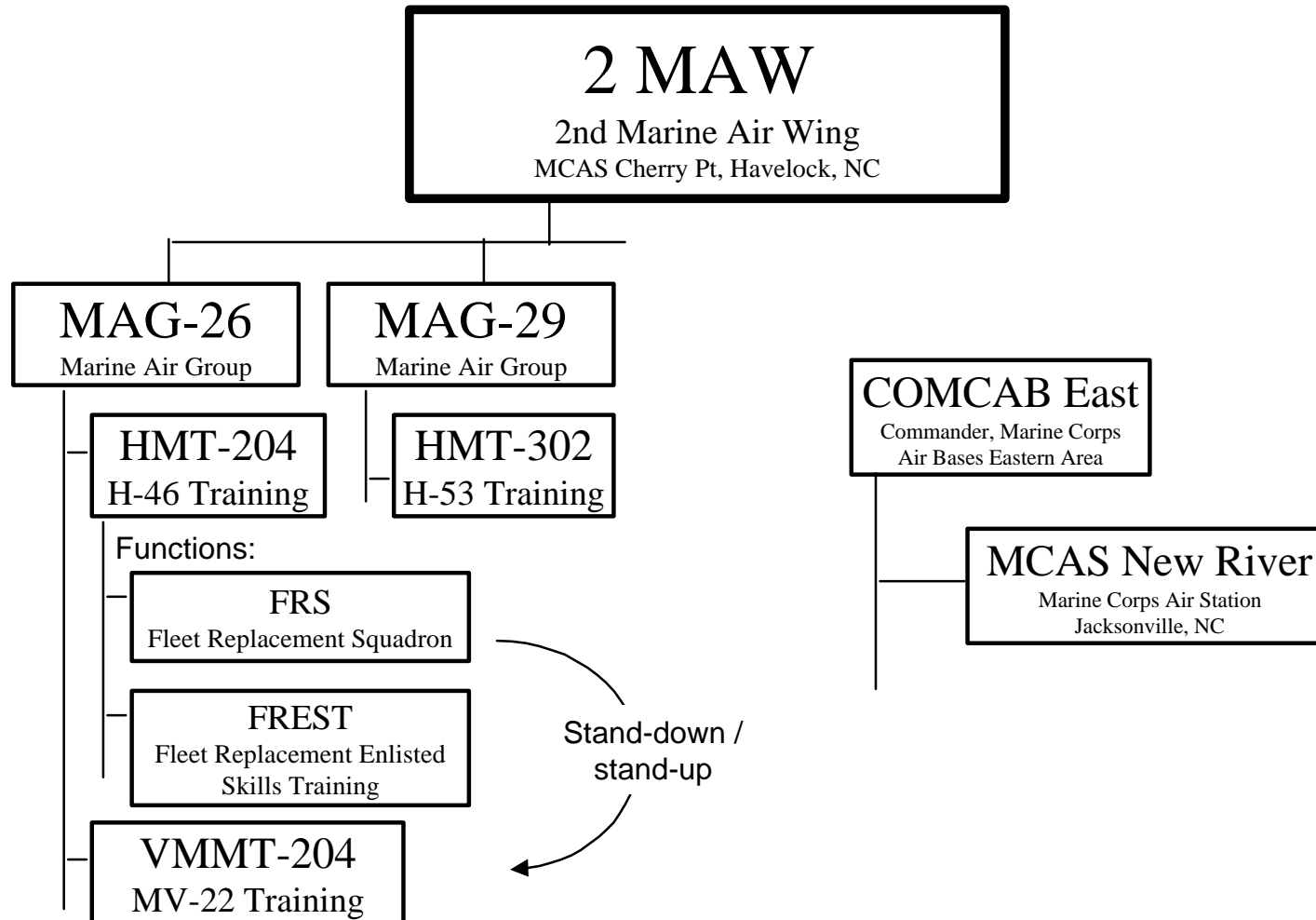


Figure 7-9

CV-22 Training Site Landscape

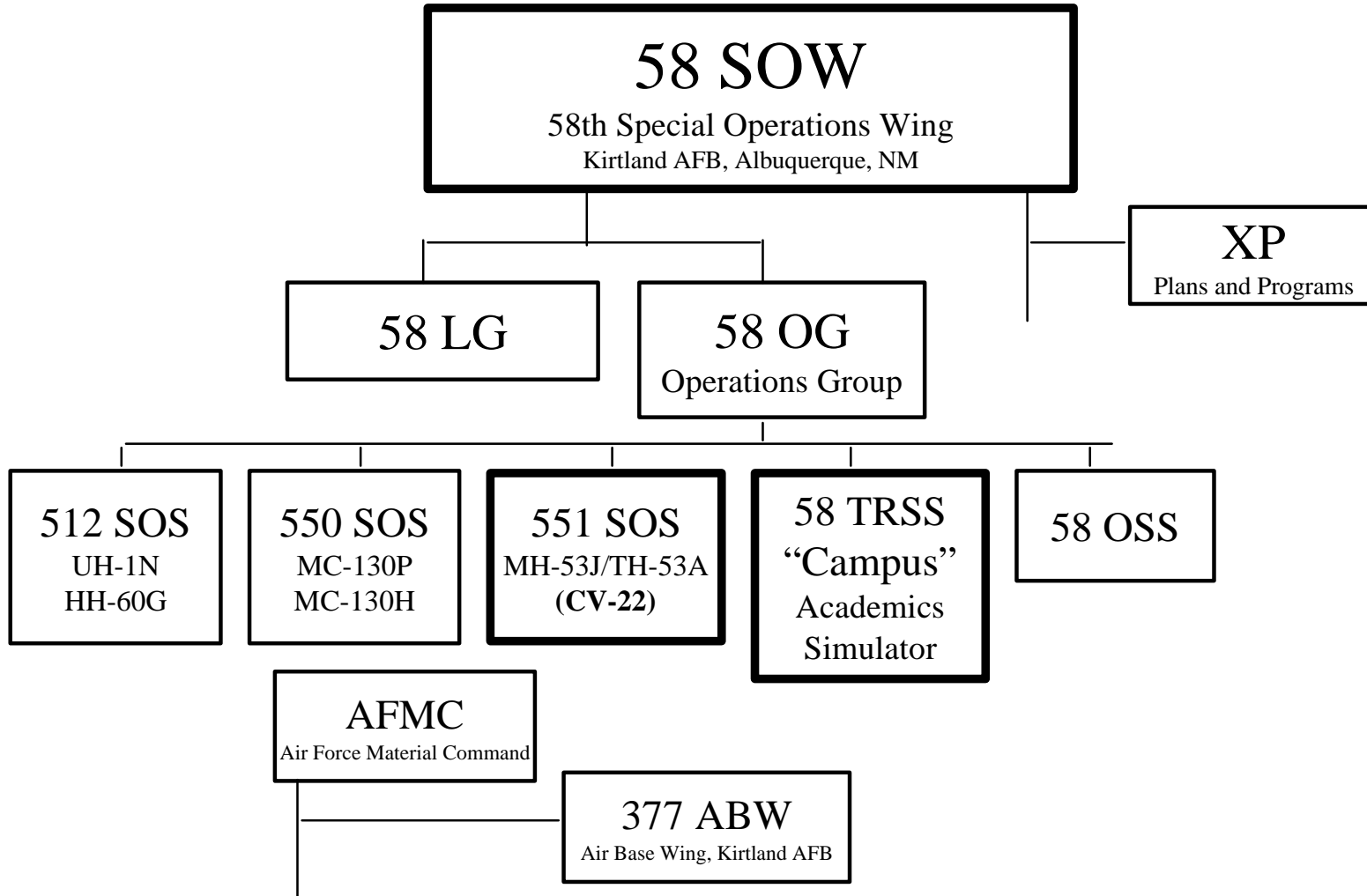


Figure 7-10