

**NAVY TRAINING PLAN**

**FOR THE**

**AH-1W AIRCRAFT**

**N88-NTP-A-50-8520D**

**FEBRUARY 1996**

## AH-1W AIRCRAFT

## EXECUTIVE SUMMARY

Current AH-1W assets are comprised of a mixture of new production AH-1Ws and aircraft block upgrade AH-1Ts remanufactured into the AH-1W aircraft. The primary mission of the AH-1W aircraft is as an armed tactical helicopter capable of helo close air support, low altitude and high speed flight, target search and acquisition, reconnaissance by fire, multiple weapons fire support, troop helicopter support, and point target attack of threatening armor. The AH-1W has significantly improved power available in high altitude, hot environment, and single engine performance. The HELLFIRE Missile System increased ordnance delivery and firepower capabilities. The Night Targeting System (NTS) further enhanced the AH-1W's warfighting capability by adding FLIR sensor, CCD TV sensor, Laser Designator/Rangefinder, Automatic Target Tracking and FLIR, and CCD TV video recording.

The Tactical Navigation System (TNS) was placed in all production and block upgrade AH-1W aircraft delivered since February 1991. Previously delivered AH-1Ws will be retrofit with TNS prior to CCM/NTS induction. The NTS/Canopy/Cockpit Modification (CCM) replaces the existing canopy, nose faring, and copilot/gunner instrument panel to make provisions for the NTS and adds the TNS, CDU-800, to the front cockpit. Additionally, a communication/navigation upgrade, ECP 1686, will incorporate an ARC-210(V)Electronic Protection (EP) Radio, an ARN-153 V-4 TACAN, and an AN/ASN-163 Global Positioning System/Inertial Navigation System (EGI) commencing in 1996.

A three-level maintenance program, as specified in the Naval Aviation Maintenance Program manual, OPNAVINST 4790.2 series, has been established for the AH-1W aircraft. Corpus Christi Army Depot is the depot repair facility. NADEP Cherry Point is the Cognizant Field Activity for the AH-1W. The Navy Support Date for the NTS is March 1997.

The initial AH-1W NTS cadre training commenced during June 1994 at Camp Pendleton. Training was provided by BHTI and DCS Corporation. The Navy's internal NTS maintenance training capability stood-up during October 1994 at the HMT-303 FREST. HMT-303 commenced NTS pilot training during FY-95.

## AH-1W AIRCRAFT

## TABLE OF CONTENTS

Executive Summary .....	i
List of Acronyms .....	iii
PART I - TECHNICAL PROGRAM DATA	
A. Title-Nomenclature-Program .....	I-1
B. Security Classification .....	I-1
C. NTP Principles .....	I-1
D. Operational Uses .....	I-2
E. Technical and/or Operational Evaluation .....	I-2
F. Equipment/System/Subsystem Replaced .....	I-2
G. Description .....	I-3
H. New Features, Configuration, or Material .....	I-9
I. Concepts .....	I-9
J. Logistics .....	I-11
K. Schedules .....	I-13
L. Manpower Requirements .....	I-15
M. Training Concept .....	I-22
N. On-Board Training .....	I-26
O. List of Related Navy Training Plans and Applicable Documents .....	I-26
PART II - BILLET AND PERSONNEL REQUIREMENTS .....	II-1
PART III - TRAINING REQUIREMENTS .....	III-1
PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS .....	IV-1
PART V - MAJOR MILESTONES .....	V-1
PART VI - ACTION AND/OR DECISIONS .....	VI-1
PART VII - POINTS OF CONTACT .....	VII-1

LIST OF ACRONYMS

AFCS	Automatic Flight Control System
ANVIS	Aviators Night Vision Imaging System
APT	Aircrew Procedures Trainer
BHTI	Bell Helicopter Textron, Incorporated
BIT	Built-In Test
CCM	Canopy/Cockpit Modification
CDU	Cockpit Display Unit
CETS	Contractor Engineering and Technical Services
CFA	Cognizant Field Activity
CMT	Composite Maintenance Trainer
COM/NAV/IDENT	Communication/Navigation/Identification
CRT	Cathode Ray Tube
CSE	Common Support Equipment
EAMTMU	Enlisted Aviation Maintenance Training Management Unit
EP	Electronic Protector
ECP	Engineering Change Proposal
FEB	FLIR Electronics Box
FMS	Foreign Military Sales
FOT&E	Follow on Operational Test and Evaluation
FREST	Fleet Replacement Enlisted Skills Training
GFE	Government Furnished Equipment
GPS	Global Positioning System
HDU	Helmet Display Unit
HMLA	Marine Light Attack Helicopter Squadron
HUD	Head-Up Display
IBAHRS	Inflatable Body and Head Restraint System
IFF	Identification Friend or Foe
ILSP	Integrated Logistics Support Plan
IOC	Initial Operational Capability
ITSS	Individual Training Standards System
LDRS	Laser Designator and Ranging System
LHG	Left Hand Grip
LRP	Laser Range Panel
MALS	Marine Aircraft Logistics Squadron
MARSAT	Maintenance Air Reserve Segmented Accelerated Transitional
MATMEP	Maintenance Training Management and Evaluation Program
MCAS	Marine Corps Air Station
MFD	Multi Function Display
MMH/FH	Maintenance Man-Hours per Flight Hour
MOS	Military Occupational Specialty
MRC	Maintenance Requirement Card
MTIP	Maintenance Training Improvement Program
NAESU	Naval Aviation Engineering Services Unit
NAMTG	Naval Air Maintenance Training Group
NAMTRAGRUDET	Naval Air Maintenance Training Group Detachment
NAS	Naval Air Station
NATC	Naval Air Test Center
NATOPS	Naval Air Training and Operating Procedures Standardization
NTP	Navy Training Plan

LIST OF ACRONYMS (Continued)

NTS	Night Targeting System
NAWC-AD	Naval Air Warfare Center - Aircraft Division
NAWC-TSD	Naval Air Warfare Center - Training Systems Division
NAWC-WD	Naval Air Warfare Center - Weapons Division
NVG	Night Vision Goggles
OPEVAL	Operational Evaluation
OSIP	Operational Safety Improvement Program
PEB	Processor Electronics Box
PSE	Peculiar Support Equipment
RFOU	Ready For Operational Use
RFT	Ready For Training
RWATD	Rotary Wing Aircraft Test Directorate
SCAS	Stability Control Augmentation System
SDRS	Structural Data Recording System
SE	Support Equipment
SRA	Shop Replaceable Assembly
T&R	Training and Readiness
TECHEVAL	Technical Evaluation
TNS	Tactical Navigation System
T/O	Table of Organization
TOW	Tube-Launched Optically-Tracked Wire-Guided
TSU	Telescopic Sight Unit
CCD TVC	Television Camera
UHF	Ultra-High Frequency
VCR	Video Cassette Recorder
VHF	Very High Frequency
WRA	Weapon Replaceable Assembly
WST	Weapon Systems Trainer

PART I - TECHNICAL PROGRAM DATA

NTP No: A-50-8520D  
Date: Feb 1996

A. TITLE-NOMENCLATURE-PROGRAM

1. Title-Nomenclature-Acronym. AH-1W Aircraft
2. Program Element. 0604213N (RDT&E); 016500/053200 (APN)

B. SECURITY CLASSIFICATION

1. System Characteristics ..... Unclassified
2. System Performance ..... Unclassified
3. System Capability ..... Confidential
4. Navy Training Plan ..... Unclassified

C. NTP PRINCIPALS

1. Assistant Chief of Naval Operations/  
Director Major Staff Office  
(ACNO/DMSO) Program Sponsor ..... N880F5
2. ACNO/DMSO Resource Sponsor ..... N880F5
3. Marine Corps Program Sponsor ..... MCCDC (C-465)
4. Principal Development Activity (PDA) ..... NAVAIRSYSCOM (PMA276)
5. Training Agents (TA) ..... CINCLANTFLT  
CINCPACFLT  
CNET (T252)  
CMC
6. Training Support Agent (TSA) ..... NAVAIRSYSCOM (PMA205-2C)
7. Manpower and Personnel (MP)  
Mission Sponsor ..... CNO (N-1)
8. Chief of Naval Personnel (CHNAVPERS) ..... BUPERS (PERS-4,  
PERS-409B, PERS-221)
9. Commandant of the Marine Corps  
Manpower Management (CMC-A/MM) - Structure: ASM-1  
Personnel: MMOA-2 (Officers)  
MMEA-84 (Enlisted)

D. OPERATIONAL USES

1. Purpose. The AH-1W aircraft is an armed tactical helicopter capable of providing day, night, and adverse weather fire support and security for forward and rear area forces; armed escort, control, and coordination for assault support operations; and point and limited area air defense from threat helicopters and fixed wing aircraft. It can also control, coordinate, and provide terminal guidance for supporting arms, conduct point target and anti-armor operations, reconnaissance, and augment local search and rescue assets.

2. Foreign Military Sales (FMS) and Other Source Procurement. The AH-1W has been purchased by the governments of Turkey and Taiwan.

E. TECHNICAL AND/OR OPERATIONAL EVALUATION (TECHEVAL/OPEVAL). Night Targeting System (NTS) TECHEVAL was conducted from May through September 1993 by VX-5 at Naval Air Warfare Center, Weapons Division (NAWC-WD), China Lake; Yuma Proving Ground, Arizona; White Sands Missile Range, New Mexico; Bridgeport, California; and on amphibious ships at sea. Follow-on Operational Test and Evaluation (FOT&E) (OT-IIIA) commenced in February 1994 and concluded in May 1994.

NTS OPEVAL was conducted from May through September 1993 by VX-5 at Naval Air Warfare Center, Weapons Division (NAWC-WD), China Lake; Yuma Proving Grounds, Arizona; White Sands Missile Range, New Mexico; Cold Lake, Canada; and on amphibious ships at sea. Follow-on Operational Test and Evaluation (FOT&E) commenced during July 1994 and ended in April 1995.

The remaining Engineering Change Proposals (ECPs) and Operational Safety Improvement Program (OSIP) changes discussed in this Navy Training Plan (NTP) are comprised of Government Furnished Equipment (GFE) and, therefore, will not require TECHEVAL or OPEVAL, with the exception of the AN/APR-39A(V)2 Radar Detection System and the Wing Tip Armament Station upgrade after its schedule has been determined. However, ECP 1686 (OSIP 3-93) will require DT and OT in conjunction with COBRA IA software.

F. EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The NTS upgrade provides increased mission, safety and performance characteristics and incorporates a Canopy/Cockpit Modification to the front cockpit. The approved OSIPs which include the ARC-210 (v) EP Radio, the ARN-153V(4)TACAN and the Global Positioning System/Embedded Inertial Navigation System (EGI) AN/ASN-163 (V) will also enhance the AH-1W Weapon Systems upon their incorporation. The following is a list of new, modified and replaced systems.

NEW, MODIFIED, AND REPLACED EQUIPMENT

AIRFRAME

EQUIPMENT

DESCRIPTION OF CHANGE

Nose Faring	Modified
Canopy	Modified
Copilot/Gunners Inst Panel	Modified

AIRFRAME (cont)

<u>EQUIPMENT</u>	<u>DESCRIPTION OF CHANGE</u>
Front Cockpit	Redesigned to increase size and
Structural Data Recording System AN/ASH-37	New
Inflatable Body and Head Restraint System (IBAHRS)	Provisions for incorporation of IBAHRS in a future modification
Night Vision Goggles (NVG) Compatible Lighting	Replaced non-NVG Compatible Lighting

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AVIONICS

<u>EQUIPMENT</u>	<u>DESCRIPTION OF CHANGE</u>
ARN-153 V-4 TACAN	Replaces ARN 118 TACAN
ARC-210 (EP) Radio	Replaces AN/ARC-182 (V) Radio Set
NVG Heads Up Display (HUD)	New
AN/ASQ-205 Cockpit Control	The CDU will be replaced with the CDNU in both cockpits during ECP 1686.
AN/ASN-163 (V) Minaturized Airborne GPS Receiver	Updated software adds an embedded GPS Receiver (EGR) with inertial Navigation

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ARMAMENT

<u>EQUIPMENT</u>	<u>DESCRIPTION OF CHANGE</u>
Night Targeting System (NTS) Laser Designator and Ranging System (LDRS)	Modification of existing M-65 Part of NTS System
Left Hand Grip	Modified and Upgraded

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G. DESCRIPTION

1. Functional Description. The AH-1W has increased safety characteristics, performance and operational capabilities through the installation of the NTS, its companion Canopy/Cockpit Modification (CCM) and other new and modified systems. A brief functional description of the new and modified systems follows:

a. OSIP 8-90 AN/AWS-1(V)1 Night Targeting System. The NTS is a modification of the existing M-65 TOW Missile System that offers a fire control system providing the flight crew with the ability to detect, acquire, track, lock-on, range, and designate targets under day, night, and adverse weather conditions. ECP 1648R4, Canopy/Cockpit Modification is the ECP that modifies the aircraft to accommodate the NTS. The NTS and its accompanying CCM consist of the following:



(1) The front cockpit of the AH-1W has been modified to facilitate the addition of the NTS. This modification has also resulted in increased efficiency in the front cockpit and helps divide cockpit workload between the front and rear cockpits. Specifically, the additions and deletions are:

(a) Expansion of the ASQ-205 Cockpit Control System (CCS) to include the front cockpit.

(b) Re-design of the instrument panel to include a more IFR compatible flight instrument cluster.

(c) Re-design of the caution warning panel.

(d) Addition of a gunners radar altimeter repeater.

(e) Addition of a 5" x 5" Multi-Function Display (MFD) in the front cockpit.

(f) Addition of the ANVIS HUD system with control heads in both cockpits.

(g) Deletion of the gunners Ng gauges.

(2) The Night Targeting System (NTS) includes the following hardware changes to the AH-1W:

(a) Modification of the M-65 telescopic sighting unit (TSU) to accommodate the FLIR.

(b) An extended Optical Relay Tube (ORT) to accommodate a CCD TV camera.

(c) Addition of a Laser Designator/Rangefinding System (LDRS).

(d) Modification of the M-65 Left Hand Grip (LHG).

(e) Addition of Laser Code Panel (LCP)

(f) Addition of a Processor Electronics Box (PEB) in the Hydraulic compartment which processes the inputs from multiple sources and controls most NTS functions.

(g) Addition of a FLIR Electronics Box (FEB) above the Ammo Bay which takes signals from the FLIR detector strip and processes them into a two dimensional video image.

(h) Addition of a Photosonics Super/Standard VHS located in the Baggage compartment.

(i) Addition of a Laser First/Last/Off switch located in the front cockpit.

(j) Addition of a Super/Standard VHS recorder located in the baggage compartment.

(3) The NTS adds the following systems/capabilities to the AH-1W:

- (a) FLIR sensor.
- (b) CCD TV sensor.
- (c) Laser Designator/Rangefinder
- (d) Automatic Target Tracking
- (e) FLIR and CCD TV video recording

(In its present configuration the AH-1W retains its Direct View Optics (DVO) Capability).

(4) The heavily modified Left Hand Grip (LHG) which is the NTS's primary copilot/gunner interface now contains 11 switches; their functions are listed below:

(a) M-197 GUN Trigger: Essentially unchanged with the addition of starting the VCR when activated.

(b) Action Bar: Essentially unchanged with the addition that it now selects the slew rate of the turret when in the FLIR Medium Field of View (MFOV).

(c) Offset Button: When pressed in the auto-track mode, it allows the gunner to offset (up to 1/4 screen) the reticle line of sight from the autotracked target.

(d) Weapon Select: A covered switch, when in the HELLFIRE mode, will allow the gunner to fire a HELLFIRE missile from the left hand grip.

(e) FOV/Sensor/Polarity Select: A five position switch which changes FLIR polarity when pressed, will select higher and lower magnification FOVs when pressed up and down respectively and will allow the gunner to select DVO when pressed left and the CCD TV or FLIR video image to be displayed on the MFD and through the ORT when pressed right. When either FLIR or CCD TV video is selected, pressing this switch to the right again will select the other video image.

Note: When DVO is selected, the last selected video will be displayed on the MFD, CRT and VCR.

(f) FLIR Focus: Pressing straight in on this switch will select the FLIR autofocus function. The FLIR will focus on the center 40-60 percent of the FLIR image and display the best focus available. Depressing the top or bottom of the Rocker Switch will adjust the FLIR focus farther out or closer in respectively.

(g) Auto Track: The auto track switch will command the system to attempt autotrack of the target selected by the gunner.

(h) Laser Rangefinder: The laser range finder button will emit laser energy in a non-coded form to determine range to a target selected by the gunner with the reticle. Range finding will be continuous until the gunner releases the range finding button.

(i) Auto Gain/Level: In the FLIR mode the gunner may select to manually adjust the gain and level of the FLIR by pressing this switch straight in. In the manual mode, the gunner may adjust the gain and level by moving the switch left, right, up or down. In the Auto Gain/Level mode, the FEB will process the FLIR signal and "average the Gain/Level mode across the screen to produce the smoothest picture.

(j) Symbology Switch: The symbology switch will declutter any target position displayed on the video screen. (This function is not yet implemented in the NTS). When in the FLIR mode, if this button is pressed and held in for 5 seconds, a grey scale display will be presented to allow the gunner to adjust CRT and MFD brightness and contrast.

(k) Laser Designator: This is a guarded switch located below the trigger on the LHG which causes the laser to emit whatever coded laser energy is selected.

(5) Laser Range Panel (LRP): The laser range panel incorporates a minimum range set knob and a display switch.

(6) Laser Code Panel (LCP): The laser code panel, located on the left side of the instrument panel provides numerous functions. Its primary function is to code the laser for use in designating targets for ordnance which is compatible with NATO standard laser codes.

(7) The Cockpit Control Unit Panel (CCUP) is located on the left hand console panel of the gunners seat. It provides for the control and use of the VCR along with, status lights of the NTS, control of the brightness and contrast for the CCD TV display in the ORT, symbology brightness, and LED display brightness.

(8) Boresight: The NTS has the ability to internally boresight all of its sensors and the laser without any support equipment.

(9) Seven Segment Display: The seven segment display is located in the lower portion of the ORT and consists of four LED numerals and four indicator lights.

(10) NTS symbology provide messages that appear on the Copilot/Gunner CCD TV and FLIR sensors.

(11) Multi Function Display: The Multi-Function Display (MFD) is located above the ORT and installed to provide the gunner with a display of the currently selected sensor, FLIR or CCD TV. This image is also displayed on the CRT or the ORT.

(12) Cathode Ray Tube (CRT). The CRT is a 1" by 1" display in the TSU that presents FLIR, CCD TVC, or VCR images to the copilot/gunner.

(13) Charge Coupled Device (CCD) Television Camera (CCD TVC). The CCD TVC is a camera mounted in the TSU providing black and white day TV to the CRT and the Multi Function Display (MFD).

(14) Video Cassette Recorder (VCR). The VCR records CCD TVC or FLIR output using either Super Video Home System (SVHS) or standard VHS tapes. The VCR is mounted in the tailboom and is controlled by the Cockpit Control Unit (CCU) in the copilot/gunner station. It is accessible through the tailboom access door.

(15) Laser Designator and Ranging System (LDRS). The LDRS provides coded laser energy for designation of targets for attack by HELLFIRE or other laser guided weapons, and provides automatic laser ranging.

(16) Telescopic Sight Unit (TSU). The TSU is a modified M-65 TSU which incorporates FLIR, CCD TVC, LDRS, and automatic in-flight boresighting. The modified TSU is the heart of the NTS.

(17) Stabilization Control Amplifier (SCA). The SCA is a modified replacement for the existing SCA to incorporate NTS functions. It contains autotracking functions and scales HUD and TSU reticles.

b. ECP-1648-R-4 Canopy/Cockpit Modification (CCM). This ECP replaces the existing canopy, nose faring, and copilot/gunner instrument panel to make provisions for the NTS. Additionally, the CCM reorganizes the copilot/gunner crew station reducing workload as well as increasing the size of the cockpit area.

c. ECP-1674 Electronic Warfare (EW) Suite. The EW Suite will reduce aircraft vulnerability with electronic countermeasures. The suite is designed to alert and protect the aircraft from surface-to-air and air-to-air missiles. The EW Suite consists of the following equipment:

(1) AN/AAR-47 Missile Warning System (MWS). The AN/AAR-47 provides a visual and aural warning to flight crews of missile detection, while at the same time the MWS will initiate countermeasures by sending an eject signal to the AN/ALE-39 Countermeasures Dispenser Set (CDS).

(2) AN/AVR-2 Laser Warning Receiver. The AN/AVR-2 detects pulsed laser light (such as a rangefinder) directed at the helicopter and warns the crew of this activity. It provides an audio alert and identifies the threat by its type and location relative to the helicopter.

(3) AN/APR-39A(V)2 Radar Detection System. The AN/APR-39A(V)2 is a passive omni-directional detection system which receives and displays information to the pilot concerning the radar environment surrounding the helicopter.

d. ECP-127-1, AN/ASH-37 Structural Data Recording System (SDRS). One third of the AH-1W fleet has received AN/ASH-37 recorders to record the flight parameters to determine, track, and manage the fatigue life of the aircraft and critical structural components.

e. OSIP 3-93, AN/ARC-210 Electronic Protection (EP) Radio. The AN/ARC-210 EP Radio provides anti-jamming UHF and VHF radios compatible with ground forces anti-jamming equipment. The AN/ARC-210 radios will replace the AN/ARC-182 radios. This is being incorporated as ECP 1686.

f. ECP-1686. In addition to incorporating the ARC-210 radio this ECP also includes replacing the AN/APN-217 (V) 3 Doppler Nav System with the AN/ASN-163 (V) Embedded Inertial Navigation System/Global Positioning System (EGI) and replacing the AN/ARN-118 (V) TACAN with the AN/ARN-153 (V) 4 TACAN.

g. Future Upgrades. Provisions for an Inflatable Body And Head Restraint System (IBAHRS) will be incorporated by the CCM ECP. The IBAHRS itself will be incorporated upon receipt of the system. An operational requirement has been identified for a Wing Tip Armament Station modification and retrofit. Upon approval, this upgrade will be incorporated into the AH-1W airframe and will include as a minimum provisions for integration of up to six (6) universal weapons stations. The Cockpit Integration Requirement identified in the Operational Requirements Document for the AH-1W Mid Life Upgrade will be targeted by the 4 Bladed program which is being studied as another future AH-1W weapon system enhancement.

## 2. Physical Description

a. The following is a list of dimensions and general data for each specified item:

<u>ITEM</u>	<u>DIMENSIONS</u>
Main Rotor Blades	48 feet, 0 inches
Anti-torque (Tail) Rotor	9 feet, 9 inches
Span, Wing	10 feet, 9 inches
Span, Horizontal Tail	7 feet, 4 inches
Height (Overall)	14 feet, 7 inches
Length (Overall)	58 feet, 0 inches

b. The mission configuration max gross weight is as follows:

<u>CONFIGURATION</u>	<u>WEIGHT</u>
Maximum Gross Weight	14,750 pounds

## 3. Description of Introduction

- The first NTS/CCM aircraft was delivered to Camp Pendleton, California in July 1994.

- The initial fleet CADRE training session for the NTS/CCM aircraft commenced in June 1994.

- ECP-127-1, SDRS, began installation to one third of the fleet in third quarter FY93.

- Incorporation of the EW Suite, H-1 CP3-95, is currently scheduled for FY98.

- The AN/ARC-210 EP Radio is scheduled for introduction in FY96 as part of ECP 1686.

- The AN/ASN-163 (V) EGI is scheduled for incorporation as part of ECP 1686 in FY96 via OSIP 1-93.

4. Significant Interfaces and/or Impacts. No additional interfaces or impacts are generated other than those discussed throughout this NTP.

H. NEW FEATURES, CONFIGURATION, OR MATERIAL. The addition of the CCM and the NTS greatly expand the performance of the AH-1W without sacrificing existing capabilities. The CCM increases the capability of the Cockpit Control System (CCS) by adding a CDU-800 to the front seat complementing the AN/ASQ-205 cockpit control system already installed in the rear seat. The front cockpit was redesigned to redistribute cockpit workload. The new configuration increases the size of the front seat instrument panel which in turn requires a modification to the canopy and nose faring. The NTS adds FLIR, day and limited low light level CCD TV and Laser Designation and Ranging capabilities. It improves day performance of the AH-1W and adds significant night and adverse weather capabilities. The Comm/NAV upgrade (ECP-1686) adds increased communications, a new TACAN and an Embedded Inertial Navigation System/GPS greatly increasing the capabilities of the AH-1W.

#### I. CONCEPTS

1. Maintenance Concept. The maintenance concept for the AH-1W is based on three levels of maintenance as stated in the Naval Aviation Maintenance Program Manual, OPNAVINST 4790.2F. The Night Targeting System and the Tactical Navigation System utilize the Organizational to Depot level repair concept, bypassing the Intermediate level.

a. Organizational Level Maintenance. Organizational level maintenance consists of maintenance actions normally performed by an operating unit in support of its own operation. These actions include inspection, servicing, handling, fault isolation, removal and replacement of Weapon Replaceable Assemblies (WRAs), and performing on-aircraft repairs. Built-In Test (BIT) will be used to the maximum extent.

(1) Preventive Maintenance. Preventive maintenance is the care and servicing needed to maintain aircraft equipment, Support Equipment (SE), and facilities in satisfactory operating condition by providing for systematic inspection, detection, and correction of incipient failures either before they occur or before they develop into major defects. Preventive maintenance on

the AH-1W is conducted at specified intervals in accordance with established procedures as outlined by the Maintenance Requirement Card (MRC) decks.

(2) Corrective Maintenance. Corrective maintenance is the work done to aircraft, aircraft equipment, and support equipment to improve, change, or restore their capability to perform specific missions or functions by replacement, removal, addition, alteration, or repair of parts, equipment, or aircraft without particular regard to flying hours, operating hours, calendar days, or operating periods. Corrective maintenance includes, but is not limited to, modification, repair, and unscheduled inspection, replacement, or test. AH-1W corrective maintenance procedures encompass aircraft repair and the replacement of WRAs determined as faulty through the use of BIT or procedural troubleshooting.

b. Intermediate Level Maintenance. Intermediate level maintenance in support of the AH-1W helicopter is performed by Marine Aircraft Logistics Squadrons (MALS) designated for AH-1W support of Marine Aircraft Groups (MAG) or shipboard AIMDs augmented with MALS personnel. The designated MALS are MALS-26 at (New River) for MAG-26, MALS-29 (New River) for MAG-29, MALS-36 (Okinawa) for MAG-36, and MALS-39 (Pendleton) for MAG-39. Maintenance at the intermediate level is conducted in accordance with specific instructions contained in the maintenance instruction manuals for each aircraft system. Intermediate maintenance consists of repair, test, and calibration of WRAs, Shop Replaceable Assemblies (SRAs), and SE. There are no intermediate level maintenance tasks associated with the NTS or TNS, since they have the organizational to depot level concept.

(1) Preventive Maintenance. Preventive maintenance in support of AH-1W operating activities is performed by intermediate activities in accordance with appropriate MRCs. Preventive maintenance at this level includes non-destructive inspection procedures, functional testing and inspection of life support equipment, and inspection and treatment for corrosion of removed AH-1W WRAs and other components.

(2) Corrective Maintenance. AH-1W corrective maintenance actions performed in support of AH-1W activities by MALS personnel include repair, test, and modification of aeronautical equipment; calibration of SE; and disposition of assets from stricken aircraft. Corrective maintenance will be performed to verify faulty WRAs, and fault isolate to an SRA component using appropriate test equipment. The designated MALS will also perform first degree repairs on the T-700 engine.

c. Depot Level Maintenance. Depot level maintenance consists of major overhaul or complete rebuilding, manufacture, or modification of parts, assemblies, subassemblies, and end items which are beyond the capabilities of intermediate level activities. Corpus Christi Army Depot (CCAD) replaced NADEP Pensacola as the depot repair facility for the AH-1W as a result of force reductions initiated by the BRAC. Cherry Point Naval Aviation Depot (NADEP) is the Cognizant Field Activity (CFA).

d. Sources of Technical Assistance. NADEP Cherry Point, CCAD Corpus Christi, and most prime contractors are available to provide technical assistance to all aspects of logistic support.

e. Interim Maintenance. Interim maintenance may be required. Consideration should be given for interim depot maintenance support for new systems (i.e. NTS and EGI) prior to the Navy support dates.

2. Operational Concept. The AH-1W with NTS and associated modifications is flown by Marine Corp pilots and copilot/gunners. Eighteen AH-1Ws are assigned per squadron, and deployed in four to six plane detachments. They are capable of conducting both land and sea based operations using variations of speed, altitude, day, night, and adverse weather conditions to satisfy the tactical requirements of the mission assigned. Mission profiles include but are not limited to Helo CAS (formerly called close in fire support), target search and acquisition, reconnaissance by fire, multiple weapons fire support, assault support, and point target attack of threat armor vehicles.

3. Manning Concept. The AH-1W manpower requirements are contained in Table of Organization (T/O) 8970, which includes the UH-1N and forms a composite Marine Light Attack Helicopter Squadron (HMLA). Training squadron requirements are found in T/O 8590 and it also is a composite squadron. The AH-1W and UH-1N share the same Military Occupational Specialty (MOS) designations in everything except pilots, where an AH-1W pilot is designated as MOS 7565 and a UH-1N pilot is designated as MOS 7563. The latest T/Os increase the number of AH-1Ws in an HMLA to 18.

## J. LOGISTICS

### 1. Manufacturer

#### a. Aircraft

Bell Helicopter Textron, Inc.  
P.O. Box 482  
Fort Worth, TX 76101

#### b. Cockpit Control System

Rockwell International  
Collins Aircraft Division (CACD)  
Cedar Rapids, IA 52402

#### c. Night Targeting System

Tamam Precision Instruments, Inc.  
P.O. Box 75  
Yahud 56001, Israel

Kollsman  
220 Daniel Webster Highway  
Merrimack, NH 03054



d. Composite Maintenance Trainer (CMT) Fault Insertion

Metters Industries, Inc.  
12443 Research Parkway, Suite 304  
Orlando, Florida 32826

e. ECP-1686

ARC-210 EP Radio  
Rockwell International  
Collins Aircraft Division (CACD)  
Cedar Rapids, IA 52402

EGI AN/ASN-163  
Honeywell Military Avionics  
11601 Roosevelt Blvd  
St. Petersburg, FL 33716-2202

AN/ARN-153 (V) 4 TACAN

2. Contract Numbers

AH-1W Development	N00019-83-C-0221
HELLFIRE Development	N00019-84-C-0242
AH-1W Production Lot #1	N00019-84-C-0002
AH-1W Production Lot #2	N00019-85-C-0091
AH-1W Block Mod	N00019-86-C-0343
Cockpit Control System	N00019-87-G-0344
AH-1W Production Lot #3	N00019-88-C-0020
Night Targeting System	N00019-88-C-0054
AH-1W Production Lot #4	N00019-90-C-0084
AN/AVQ-35 ANVIS HUD System	N00019-90-C-0126
AH-1W Production Lot #5	N00019-90-C-0277
Lot #5 Block Mod	N00019-91-C-0011
AH-1W Production Lot #6	N00019-92-C-0124
CMT Fault Insertion	N00019-92-P1-LM217
TISP Trainers	N00019-93-C-0017
APT Visual Systems	N00019-93-C-P1-LN212
NTS BOA/Kollsman	N00019-95-G-0088

3. Integrated Support Plan (ISP) Development. The latest version of the ISP for the AH-1W was published 8 July 1994.

4. Technical Data Plan. The AH-1W is a mature program and all requirements for technical manuals for the basic aircraft have been met. Technical manuals, printed in hard copy only, are available and can be procured by completing Naval Air Systems Command Publications Form 00-25-DRT-1 with submission to the Naval Air Technical Services Facility, Code 32, Philadelphia, Pennsylvania. Technical manuals will be updated concurrent with the ECP and OSIP upgrades to include information on new or modified systems.

5. Special Test Sets, Tools, and Test Equipment. AH-1W SE requirements were identified in the AH-1W Support Equipment Management Report published by NAWC-AD Lakehurst. Peculiar Support Equipment (PSE) and Common Support Equipment (CSE) consist of monitoring, checking out, and calibrating equipment, special tools, handling devices, etc. necessary to support the AH-1W subsystems. PSE and CSE requirements are developed from approved maintenance plans at NAWC-AD Lakehurst. SE for new development GFE was identified by the responsible development agencies.

6. Repair Parts and Spares Requirements. The AH-1W repair parts material support date was 1 October 1989. Navy support was achieved in June 1992. The NTS support date is scheduled to correspond with the stand-up of each coast (both active and reserve components).

7. Naval Engineering and Technical Service (NETS). NAESU participation in training is to support training to fleet squadrons in accordance with the NAESU charter. NAESU representatives were provided initial AH-1W training for both the aircraft and the TNS. NAESU representatives will be included in the initial NTS and CCM cadre training as well as all other new systems/upgrades to the AH-1W. Specifically, this will include training on the ARC-210, NTS, CCM, Stores Management System (SMS formerly ARCS), and other systems as they are fielded.

## K. SCHEDULES

### 1. Schedule of Events

a. Delivery Schedule. All HMLA squadrons have been equipped to their current allowance of 12 AH-1W aircraft and all squadrons are in the process of being increased to 18 AH-1W aircraft which will culminate with the NTS delivery schedule.

Production AH-1W aircraft will include complete NTS kits starting in FY95 with an anticipated delivery rate of 12 aircraft per year. Current production is scheduled through FY-95 with deliveries until FY-97.

b. Ready For Operational Use (RFOU) Schedule. All AH-1W aircraft are RFOU upon delivery.

c. Foreign Military Sales (FMS) and Other Source Delivery Schedules. Each FMS case includes its own separate and specific NTP.

### d. Training Device and Technical Training Equipment (TTE) Delivery

(1) Composite Maintenance Trainer (CMT). The first Composite Maintenance Trainer (CMT), device #667, was delivered to Naval Air Maintenance Training Group Detachment (NAMTGD) 1030 Camp Pendleton in October 1988. A second CMT, Device #678, which included the Tactical Navigation System (TNS) in the rear seat, was delivered to NAMTGD 1030 in September 1991. CMT 678 received a Fault Insertion (FI) capability in February 1994 and CMT 667 received its FI capability during October 1994. Trainer 667 has been upgraded to the TNS configuration and was retrofit with the NTS/CCM at BHTI and

returned to Camp Pendleton during September 1994. Device 678 is scheduled to receive its NTS/CCM upgrade during FY-97.

(2) Weapon System Trainer (WST). The first Weapon System Trainer (WST), Device 2F136, with an integrated visual system was RFT at Camp Pendleton in November 1992. WST #2, located at MCAS New River, was RFT in April 1993. Both WSTs still require the TNS configuration upgrade. The intense aircrew training requirements of the NTS require both 2F136s to be upgraded to the NTS configuration as soon as possible. The NTS upgrade to the WSTs will be part of an NTS Trainer Block Upgrade which will include NTS/CCM, a computer rehost, a new Instructor operator station, ECP 1686 and Tactical Navigation System. To accommodate the S/W requirement of the NTS integration, a complete computer rehost is required for each trainer. To fully utilize the capability of the WST, a new Instructor Operator Station is also required. Technological advancements offer greatly enhanced capabilities that do not require instructor training. Future operational requirements call for an indepth requirement to operate each trainer independently which requires the procurement of additional image generators. The current scheduled completion dates for the WST Block Upgrade is third Quarter FY-97 for WST #2 and second Quarter FY-98 for WST #1.

(3) Cockpit Control System (CCS) Part Task Trainers (PTT). Ten CCS PTTs were procured and delivered. Distribution of the trainers were as follows: one for each active duty HMLA, two for HMT-303, and two for the Reserves (HMA-773 and HMA-775). The trainers will require S/W upgrades to reflect ECP 1686 configuration changes once the systems are fielded.

(4) Aircrew Procedure Trainer (APT). A prototype mobile/deployable Aircrew Procedure Trainer has been constructed by the Simulation and Control Technology Department (SCTD), NAWC-AD Patuxent River, commonly referred to as Manned Flight Simulator (MFS). The prototype APT, APT #1, was delivered to Camp Pendleton on 8 September and RFT on 9 September, 1994. APTs contain an ESIG 2000 visual system, are housed in three complexed mobile facilities and are/will be supported by COMS. The APT, device 2F170, performs all functional checklists, including the weapon systems and emergency procedures, both airborne and on the ground. It is also qualified as an Instrument Flight Training device. The prototype at Camp Pendleton is for use by both the fleet and training squadron. A second prototype APT, device #2, scheduled for delivery during June 1996, with a 4th visual channel for the TSU, the CCM upgrade, Night Targeting System (NTS) and ECP-1686 is still under development at MFS for the Marine Corps Reserve. Upon delivery of APT #2 (1st Reserve APT), the requirement exists to return APT #1 to MFS for an upgrade to the NTS/CCM/ECP-1686 configuration. The upgrade and modifications to APT #1 will not exceed 5 months. The training goal is to upgrade and return APT #1 to Camp Pendleton prior to Camp Pendletons loss of its WST for the NTS Block Upgrade. An additional APT requirement exists which will require R&D funding. This APT will remain at MFS, NAWCAD Patuxent River as an engineering test bed to evaluate future upgrades and flight test data for all Cobra initiatives.

(5) Mobile Weapon System Trainer (MWST). The Marine Corps Reserve has funded a second Reserve APT, third overall APT. This APT will be enhanced and built as a prototype MWST. If the prototype satisfies all WST

requirements it will be designated as such and all future APTs will be built to this desing specification.

(6) FLIR Recognition/Target Identification Sensory Performance (TISP) Trainer. The need to identify the thermal imagery presented by the NTS is paramount. Accordingly, TISP trainers are currently under development by the DCS Corporation. The trainer consists of a series of target images generated on a portable PC enabling pilots to learn and practice identifying thermal images. Two prototype trainers will be delivered as part of the Small Business Innovative Research (SBIR) program. Twenty seven additional TISP trainers are scheduled for procurement. This provides each squadron, both active and reserve with three trainers, of which one will be a complete developmental unit capable of incorporating images captured on video tape and two will be strictly table top trainers for practice in identifying Thermal imagery. Fifteen trainers were procured and delivered in FY95. The remainder will be procured in FY96. Twenty seven Trainer peculiar LHGs are scheduled for delivery in May 96. The final trainer delivery also includes a trainer for MAWTS and one for China Lake.

2. Time Required to Install. Installation of WSTs and CMTs has already taken place. All other trainers are considered mobile, not requiring MILCON. Upgrading to new configurations depends on how long the integration takes and where it is installed (on-site vs evacuation). For example, the CMTs must be returned to BHTI for NTS/CCM upgrade.

L. MANPOWER REQUIREMENTS

1. Equipment, Subsystems, and Systems. NA
2. Aircraft Equipment, Systems, and Subsystems
  - a. Aircrew

<u>POSITION</u>	<u>MOS</u>	<u>CREW POS</u>	<u>SEAT RATIO</u>	<u>CREW RATIO</u>
Pilot/Copilot-Gunner	7565	2.0	1.2	2.4

b. Estimated Maintenance Man-Hours per Flight Hour (MMH/FH). Estimated MMH/FH by Work Center is listed as follows:

<u>WORK CENTER</u>	<u>ORGANIZATIONAL MMH/FH</u>
12A	2.097
12B	1.312
12C	0.826
13A	0.381
140	1.192
210	1.401
220	1.567
230	1.211
310	<u>4.890</u>
TOTAL:	14.877

c. Proposed Utilization. The latest AH-1W Weapon System Planning Document is dated 28 October 1993. There is no change to current aircraft utilization.

d. Recommended Qualitative/Quantitative Manpower Requirements. Qualitative and quantitative manpower requirements are available from T/O 8970 dated May 1995.

Note: Only maintenance MOSs are identified and the T/O is for an 18 AH-1W and 9 UH-1N HMLA.

(1) Active duty manpower requirements are as follows:

(a) Officer

<u>DESIG/MOS</u>	<u>0-6</u>	<u>0-5</u>	<u>0-4</u>	<u>0-3</u>	<u>0-2/0-1</u>	<u>WO</u>	<u>TOTAL</u>
6004				1			1
6302						1	1
6502						1	1
7565		$\frac{1}{1}$	$\frac{9}{9}$	$\frac{18}{19}$	$\frac{12}{15}$		$\frac{40}{43}$
TOTAL	0	1	9	19	15	2	43

(b) Enlisted (Organizational Level Maintenance)

<u>RATING NEC/MOS</u>	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6046						6	3	9
6047				4				4
6060				3		3		6
6072							3	3
6114			6	9	15	18	24	72
6119	1							1
6154			6	3	12	12	21	54
6174				3	3	3	6	15
6177			1					1
6324			3	3	9	18	21	54
6391		1						1
6531			4	3	6	9	12	34
TOTAL	1	1	20	28	45	69	90	254

(c) Enlisted (Intermediate Level Maintenance)

<u>RATING NEC/MOS</u>	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6060						3		3
6072					3	3		6
6073						3		3

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6092					3		6	9
6094				3			3	6
6124			3		3	3		9
6132							3	3
6412							3	3
6413					3	3		6
6433						3	3	6
6483						3		3
6492							6	6
6521					3	3	3	9
6541					3	3	3	9
TOTAL	0	0	3	3	18	27	30	81

(2) Reserve manpower requirements are available from T/O 8975 dated 16 May 1995. Reserve manpower requirements are individually listed by site and comprised of active duty, SMCR and FTS categories for each MOS requirement. Only the HMLA (-) from Camp Pendleton and HMLA 775 Det A from Belle Chase are depicted below:

HMLA (-)

(a) Officer

<u>DESIG/MOS</u>	<u>0-6</u>	<u>0-5</u>	<u>0-4</u>	<u>0-3</u>	<u>0-2/0-1</u>	<u>WO</u>	<u>TOTAL</u>
			(Active)				
7565	0	0	0	1	0	0	1
6004						1	1
6502						1	1
			(SMCR)				
7565		1	6	10	10		27
6302						1	1

(b) Enlisted (Organizational Level Maintenance)

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
				(Active)				
6046						1		1
6047				1				1
6060				2		2		4
6119	1							1
6114			1	2	2	1	4	10
6154			1	1	4	1	4	11
6174				1	2	1	1	5
6177			1					1
6324			1		4	2	5	12
6391		1						1
6531			1		2		3	6

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6541					1	1		2
6672					<u>1</u>	<u>1</u>		<u>2</u>
TOTAL	1	1	5	7	16	10	17	57

(SMCR)

6046						2	2	4
6047				1				1
6060						1		1
6114			2	3	5	6	12	28
6154			2	1	3	8	10	24
6174				1		1	3	5
6324			1	2	2	8	9	22
6531			1	2	1	2	5	11
6541					1	1	2	4
6672					<u>1</u>	<u>1</u>		<u>2</u>
TOTAL			6	10	13	30	43	102

(FTS)

6046							1	1
6047				1				1
6060							1	1
6114			1	1	3	5		10
6154			<u>1</u>		<u>1</u>	<u>1</u>		<u>2</u>
6324						2		2
6531			$\frac{1}{3}$	2	$\frac{1}{5}$	$\frac{4}{14}$		$\frac{6}{24}$
TOTAL	0	0	$\frac{1}{3}$	2	$\frac{1}{5}$	14		24

(c) Enlisted (Intermediate Level Maintenance)

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
				(Active)				
6043						1	1	2
6044					1			1
6072					1		1	2
6094				1			1	2
6124			1		2			3
6132							1	1
6413					1	1		2
6422							1	1
6433						1		1
6483						1		1
6492							2	2
6521						<u>1</u>	<u>1</u>	<u>2</u>
TOTAL	0	0	1	1	5	5	8	20

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u> (SMCR)	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6043							1	1
6072					1		1	2
6073						1		1
6092				1		3		4
6094				1			1	2
6124			1		2			3
6132							1	1
6412						1	1	2
6413					1	1		2
6433						1	2	3
6483						1		1
6492							2	2
6521					<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>
TOTAL	0	0	1	2	3	10	10	26
				(FTS)				
6541					<u>1</u>	<u>1</u>	<u>1</u>	<u>3</u>
TOTAL	0	0	0	0	2	4	7	13

HMLA (Det A)

(a) Officer

<u>DESIG/MOS</u>	<u>0-6</u>	<u>0-5</u>	<u>0-4</u> (Active)	<u>0-3</u>	<u>0-2/0-1</u>	<u>WO</u>	<u>TOTAL</u>
7565	0	0	0	1	0	0	1
6004						1	1
6502						1	1
			(SMCR)				
7565		1	6	10	10		27
6302						1	1
			(FTS)				
7565			1	1			2

(b) Enlisted (Organizational Level Maintenance)

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u> (Active)	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6046						1		1
6047				1				1
6060				1		1		2
6114				3	1	1	4	9
6154			1	1			3	5
6174				1	1	1	1	4
6324			1		2	3	4	10



RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6531			1		1		2	4
6541					1	1		2
6672					<u>1</u>	<u>1</u>		<u>2</u>
			3	7	<u>7</u>	<u>9</u>	14	40
(SMCR)								
6046						1		1
6114					2	2	4	8
6154						3	4	7
6174							1	1
6324				1	1	3	3	8
6531					1	1	2	4
6541							1	1
TOTAL				1	4	10	15	30
(FTS)								
6046						1		1
6060						1		1
6114			2		2	3		7
6154			1		4	2		7
6531				<u>1</u>		<u>2</u>		<u>3</u>
TOTAL			3	1	6	9		19

(c) Enlisted (Intermediate Level Maintenance)

RATING NEC/MOS	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
(Active)								
6072							1	1
6094				1				1
6124			1		1	1		3
6132							1	1
TOTAL			1	1	1	1	2	6
(SMCR)								
6094							1	1
6413						1		1
6433							1	1
TOTAL	0	0		2	1	2	3	3
(FTS)								
6072					1			1
6073							1	1
6521						<u>1</u>		<u>1</u>
TOTAL	0	0			1	1	1	3

(3) Training squadron manpower requirements from T/O 8590 dated May 1995 are as follows:

(a) Officer

<u>DESIG/MOS</u>	<u>0-6</u>	<u>0-5</u>	<u>0-4</u>	<u>0-3</u>	<u>0-2/0-1</u>	<u>WO</u>	<u>TOTAL</u>
6002			1	1			2
6004				1		1	2
6302						2	2
6502				1		1	2
7565	<u>0</u>	<u>1</u>	<u>6</u>	<u>18</u>	<u>0</u>	<u>0</u>	<u>25</u>
TOTAL		1	7	21		4	33

(b) Enlisted Maintenance Personnel

<u>RATING NEC/MOS</u>	<u>E-9</u>	<u>E-8</u>	<u>E-7</u>	<u>E-6</u>	<u>E-5</u>	<u>E-4</u>	<u>E-3</u>	<u>TOTAL</u>
6043						2	2	4
6044					1			1
6045						2		2
6046					2	2	3	7
6047				2				2
6060				2	3	1	6	12
6072				1	2		3	6
6073							2	2
6092							2	2
6094					1	1	1	3
6114			3	10	21	20	26	80
6119	1	2						3
6124				1	3	2	3	9
6132						1	1	2
6154			2	5	6	5	10	28
6174			2	3	7	10	9	31
6324			2	6	11	12	12	43
6391		3						3
6412						1	3	4
6413					2	1	2	5
6414			1	3				4
6423						3		3
6433					1	2		3
6434				3				3
6483					1	1	3	5
6492					1	2		3
6521					1		3	4
6531			3	5	8	11	12	39
6541				1	5			6
6591		<u>1</u>						<u>1</u>
TOTAL	1	6	13	42	76	79	103	320

M. TRAINING CONCEPT. TECHEVAL and OPEVAL maintenance personnel were trained by BHTI at Hurst, Texas, for the initial aircraft fielding. NTS TECHEVAL training was performed by TAMAM prior to TECHEVAL. NTS OPEVAL training was conducted April 1993 by BHTI at Camp Pendleton, but was incomplete. VX-5 then conducted a retraining session in September 1993.

All squadrons have received cadre training prior to transitioning to NTS. NTS Cadre training consists of both operator and organizational level maintenance training. Reserve units will receive NTS Cadre training during first quarter FY-96 to coincide with the arrival of their first NTS aircraft.

Cadre training courseware has been integrated into the applicable NAMTGD organizational level curriculum which is part of the follow-on MOS training tracks.

The introduction of the NTS and CCM ECPs will dramatically impact pilot training requirements. Accordingly, it will require a complete Training and Readiness (T&R) syllabus and its associated ground training curriculum update based on the results of the Training System Analysis dated Dec 1993. This effort recommended the most effective way to utilize the existing training flight hour authorizations, WST, APT, TISP Trainer, and the FRS Learning Center. The learning center curriculum is currently under contract and being updated to take advantage of modern instructional methods.

1. Training Applicable to Military, Civilian, and Foreign Personnel

a. Initial Training

(1) Operator. All initial training for the AH-1W has been completed. TECHEVAL training for the NTS was conducted by TAMAM. NTS initial cadre ground training was conducted by BHTI at Camp Pendleton during June 1994. Initial NTS training for NAMTGD instructors accompanied the stand up of CMT 667's retrofit with the TNS, NTS, and CCM upgrades (see para III.A.1).

(2) Maintenance. All initial training for the AH-1W has been completed. TECHEVAL training for the NTS was conducted by TAMAM. NTS OPEVAL ground training was conducted by BHTI at Camp Pendleton during April 1993. Initial cadre training was performed at Camp Pendleton by BHTI and the DCS Corporation for the first squadron to stand up. Initial Navy NTS training capability commenced during October 1994 at the FREST.

(3) Team. NA

(4) Officer. NA

(5) Industrial Personnel. NA

b. Follow-on Training. Follow-on training will be conducted by organic USMC and USN assets. All organizational level follow-on training will be conducted by the Fleet Replacement Enlisted Skills Training (FREST) unit at HMT-303. The FREST concept combines both Fleet Readiness Aviation Maintenance Personnel (FRAMP) and NAMTGD training into a department within the training squadron. The FREST reduces training time by eliminating the redundancy of

having two separate training units and by coordinated scheduling eliminating dead time between classes. The FREST is currently manned and totally functional. The introduction of the NTS and CCM necessitated the development of an NTS/CCM course. This course has been developed and incorporated into initial accession maintenance training tracks.

(1) Operator. Each squadron received cadre training on the AH-1W prior to the receipt of aircraft. All aircraft cadre training is complete.

AH-1W Pilot Training

Course objective .....	To prepare combat capable pilots for duty in HMLA squadrons.
Course number .....	2C-3356
Course length .....	21.0 weeks
RFT date .....	November 1991
Location .....	HMT-303

Note: Course C-2C-3356 is an eight-day system familiarization course. Once completed, pilots begin combat capable training conducted in accordance with Training and Readiness (T&R) Syllabus, Vol. 3, Marine Corps Order P3500.16. Course length includes time required to complete the T&R syllabus.

(2) Maintenance

(a) Organizational. Organizational maintenance training on the AH-1W was initially taught by BHTI instructors at BHTI facilities in Hurst, TX.

Communication/Navigation/Electrical/Weapons System Organizational Maintenance

Track number .....	M-102-2024
Track objective .....	To provide organizational level maintenance training on the AH-1W communication, navigation, electrical, and weapons systems.
Track length .....	18.4 weeks
MOS .....	6324
RFT date .....	October 1994
Location .....	HMT-303

AH-1W and UH-1N Power Plants/Power Trains and Rotors Organizational Maintenance

Track number .....	M-601-2014
Track objective .....	To provide organizational level maintenance training on the AH-1W and UH-1N Power Plant and related systems.
Track length .....	15 weeks
MOS .....	6114

RFT date ..... April 1989  
Location ..... HMT-303

AH-1W and UH-1N Hydraulic and Airframe System Organizational Maintenance

Track number ..... M-602-2081  
Track objective ..... To provide organizational level maintenance training on the AH-1W and UH-1N hydraulic systems and airframes.  
Track length ..... 11.4 weeks  
MOS ..... 6154  
RFT date ..... October 1994  
Location..... HMT-303

Rotary Wing (H-1, CH-46, CH-53)/Armament Systems Organizational Maintenance

Track number ..... M-646-2044  
Track objective ..... To provide organizational level maintenance training on Rotary Wing armament systems.  
Track length ..... 10.2 weeks  
MOS ..... 6531  
RFT date ..... April 1989  
Location ..... HMT-303

(b) Intermediate

Helicopter Dynamic Component Intermediate Maintenance

Track number ..... M-601-3090  
Track objective ..... To provide intermediate level training on helicopter dynamic components.  
Track length ..... 4.2 weeks  
MOS ..... 6132  
RFT date ..... November 1990  
Location ..... HMT-301

H-1/Model Aircraft Electrical/Instrument Flight Control Equipment Intermediate Maintenance

Track number ..... M-602-5811  
Track objective ..... To provide intermediate level training on electrical, instrument, and flight control equipment for the H-1.  
Track length ..... 10.8 weeks  
MOS ..... 6433  
RFT date ..... April 1989  
Location ..... HMT-303

(3) Reserve Training. Marine Corps Reserves will utilize combinations of all available training programs for AH-1W qualifications.

(a) Operator. Operator training will consist of a minimum of the NAMTGD pilot familiarization course, ten hours of flight time, NATOPS check, and seven WST flights (if available) for all personnel currently possessing primary MOS 7565. Pilots who do not possess MOS 7565 will be required to satisfy the appropriate T&R manual transition syllabus requirements.

(b) Maintainer

1) Organizational. Organizational maintenance training will comply with existing Catalogue of Navy Training Courses requirements for initial qualifications. Personnel possessing H-1 MOSs will be required to receive differences training. Maintenance Air Reserve Segmented Accelerated Transitional (MARSAT) training may be required for exceptionally long training courses. Specific courses that might utilize MARSAT training are avionics and aircraft mechanics.

2) Intermediate. Intermediate level maintenance training is available at various NAMTGD locations and quotas are available through the Enlisted Aviation Maintenance Training Management Unit (EAMTMU) at Millington, Tennessee.

(4) Team. NA

(5) Officer. NA

(6) Industrial Personnel. NA

2. New Training Pipelines or Training Tracks. One new training track is required by this NTP. Existing training tracks relating to the AH-1W and the revisions required are as follows:

a. C-104-3351 AH-1W Night Targeting System Organizational Maintenance Course. New standalone NTS course which will be incorporated into the H-1 Communications/Navigation Organizational Maintenance course.

b. C-2C-3356, AH-1 Pilot Training. Revisions required are to develop and integrate NTS, CCM, GPS, and the AN/ARC-(V)210 EP Radio into the existing course and the T&R manual with minimal change to course length. All ground training associated with the FRS is currently being rewritten and modernized to take advantage of new computer training technology.

c. M-602-2081, A/UH-1 Airframe and Hydraulic System Organizational Maintenance. Revision required is to modify courses in Phase II to include the SDRS installation (ECP-127-1).

d. M-646-2044, H-1, CH-46, CH-53 Armament Systems Organizational Maintenance. Revision required is to modify course C-646-9361 to include NTS and associated boresight training; change course and track lengths as required.

e. M-102-2024, H-1 Communication/Navigation/Electrical/Weapons (COM/NAV/ELECT/WEPS) System Organizational Maintenance. Revision required is to modify courses in Phase II to include NTS, TNS, CCM, AN/ARC-210, GPS, and EW suite; change course and track lengths as required.

3. Explosive Ordnance Disposal Training. NA

4. Selected Reserve (SELRES) Training. SELRES training was utilized as BHTI was tasked with providing AH-1W initial training for Reserves in Atlanta.

N. ON-BOARD TRAINING

1. Proficiency or Other Training Organic to the Aircraft System, Subsystem or Equipment. The Maintenance Training Management and Evaluation Program (MATMEP), in conjunction with the Maintenance Training Improvement Program (MTIP), will be used to establish an effective and efficient training system that is responsive to fleet training requirements.

2. Personnel Qualification Standards (PQS) Requirements. NA

3. Maintenance Training Improvement Program (MTIP). NA

4. Other On-Board Training Requirements. United States Marine Corps on-board training is based on the current series of MCO 1510.34, Individual Training Standards System (ITSS) and MCO P4790.2, ITSS MATMEP. ITSS MATMEP is designed to meet Marine Corps 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 the task, skill, and knowledge requirements of each MOS. MATMEP will be developed by the Commanding General, MCCDC. The introduction of the NTS will require the addition/modification of all training curricula to include laser safety.

O. LIST OF RELATED NAVY TRAINING PLANS AND APPLICABLE DOCUMENTS

<u>NTP TITLE</u>	<u>NTP NUMBER</u>	<u>PDA CODE</u>	<u>STATUS</u>
Advanced Composite Material Repair Program	A-50-8404C/D	OP-514	Draft March 21, 1995
AN/ARC-182(V) UHF/VHF/Radio System VHF Airborne Relay	A-50-8115C	PMA-209	Final Draft June 1996
AN/AVS-6(V) Aviators Night Vision Imaging System	A-50-8214C	PMA-261	Preliminary Draft June 1991

<u>NTP TITLE</u>	<u>NTP NUMBER</u>	<u>PDA CODE</u>	<u>STATUS</u>
APX-100(V) Transponder Set	A-50-8305A	AIR-533	Approved Mar 89
Aircraft Survivability Equipment (EW Suite) (ASE)	A-50-8302C/A	PMA272	Approved December 1994
AIM-9M SIDEWINDER Missile System	A-50-8105B	PMA259	Draft February 1995
AN/ARC-210(V) Electronic Protection (EP)Radio System	A-50-9012B/D	PMA209	Proposed October 1995
AN/APN-217 Radar Navigation Set	A-50-8814B/D	PMA209	Draft March 1995
FMS Taiwan AH-1W		PMA205	Under Development
NAVSTAR Global Positioning System (GPS)	E-70-8215F	PMW-177	Approved July 1995



PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by the AH-1W and, therefore, are not included in Part II of this NTP:

II.A. BILLET REQUIREMENTS

- II.A.1.d. Total Fleet and Fleet Support Billets for New System 2
- II.A.2.c. Total Number of Billets to be Replaced in Fleet Support Units and/or Activities - Old
- II.A.2.d. Total Fleet and Fleet Support Billets for Old/Replaced System
- II.A.3. Net Total Officer and Enlisted Fleet and Fleet Support Billet Requirements
- II.A.4. Training Activities Staff (Instructor/Support) Billet Requirements

II.B. PERSONNEL REQUIREMENTS

- II.B.1. Fleet and Fleet Support Adjusted Annual Training Input Requirements - Class "A" School Training
- II.B.3. Foreign, Other Service, and Non-Military Personnel Annual Training Input Requirements
- II.B.4. Reserve Personnel Mobilization Adjusted Annual Training Input Requirements

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

II.A.1.a. Ready for Operational and Fleet Support Use - New Development Introduction Schedule

Date: 18 May 92  
Source: PMA276

<u>UNIT/ACTIVITY/SQUADRON/UIC</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>
Production Delivery (Active)	12	12	12	12
Production Delivery (Reserve)	06	10	06	06
Production Delivery (FMS)	09	09	13	08

All HMLA squadrons have received AH-1W aircraft. Information to determine which squadron will receive the above aircraft is not available.

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-169/09202</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	1	0	0	0	1	0	0	0	0	0		6502	
	1	0	0	0	1	0	0	0	0	0		6302	
	43	0	0	0	0	0	0	0	0	0		6565	
	0	72	0	72	0	0	0	0	0	0		6114	
	0	1	0	0	0	1	0	0	0	0		6119	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	0	13	0	0	0	13	0	0	0	0		6046	
	0	3	0	0	0	3	0	0	0	0		6047	
	0	9	0	0	0	9	0	0	0	0		6060	
	0	6	0	0	0	6	0	0	0	0		6072	
	0	3	0	0	0	3	0	0	0	0		6074	
	0	6	0	0	0	6	0	0	0	0		6092	
	0	6	0	0	0	6	0	0	0	0		6094	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	1	0	0	0	1	0	0	0	0		6391	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			

HMLA-169/09202 Contd

	0	6	0	0	0	6	0	0	0	0		6433
	0	3	0	0	0	3	0	0	0	0		6483
	0	6	0	0	0	6	0	0	0	0		6492
	0	9	0	0	0	9	0	0	0	0		6521
	0	28	0	0	0	28	0	0	0	0		6531
	0	9	0	0	0	9	0	0	0	0		6541
	0	6	43	0	0	6	0	0	0	0		6672
TOTAL:	46	/ 304	43	0	3	304	0	0	0	0		

HMLA-267/09159

USMC

1	0	0	0	1	0	0	0	0	0	0		6004
1	0	0	0	1	0	0	0	0	0	0		6502
0	0	0	1	0	0	0	0	0	0	0		6302
43	0	43	0	0	0	0	0	0	0	0		7565
0	72	0	0	0	72	0	0	0	0	0		6114
0	1	0	0	0	1	0	0	0	0	0		6119
0	12	0	0	0	12	0	0	0	0	0		6124
0	3	0	0	0	3	0	0	0	0	0		6132
0	48	0	0	0	48	0	0	0	0	0		6154
0	13	0	0	0	13	0	0	0	0	0		6046
0	3	0	0	0	3	0	0	0	0	0		6047
0	9	0	0	0	9	0	0	0	0	0		6060
0	6	0	0	0	6	0	0	0	0	0		6072
0	3	0	0	0	3	0	0	0	0	0		6074
0	6	0	0	0	6	0	0	0	0	0		6092

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-267/09159 Contd</u>													
	0	6	0	0	0	6	0	0	0	0		6094	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	1	0	0	0	1	0	0	0	0		6391	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	
	0	6	0	0	0	6	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6483	
	0	6	0	0	0	6	0	0	0	0		6492	
	0	9	0	0	0	9	0	0	0	0		6521	
	0	28	0	0	0	28	0	0	0	0		6531	
	0	9	0	0	0	9	0	0	0	0		6541	
	0	6	43	0	0	6	0	0	0	0		6672	
TOTAL:	46	304	43	0	3	304	0	0	0	0			

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-369/09361</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	1	0	0	0	1	0	0	0	0	0		6502	
	1	0	0	0	1	0	0	0	0	0		6302	
	43	0	43	0	0	0	0	0	0	0		7565	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	1	0	0	0	1	0	0	0	0		6119	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	0	13	0	0	0	13	0	0	0	0		6046	
	0	3	0	0	0	3	0	0	0	0		6047	
	0	9	0	0	0	9	0	0	0	0		6060	
	0	6	0	0	0	6	0	0	0	0		6072	
	0	3	0	0	0	3	0	0	0	0		6074	
	0	6	0	0	0	6	0	0	0	0		6092	
	0	6	0	0	0	6	0	0	0	0		6094	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	1	0	0	0	1	0	0	0	0		6391	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	
	0	6	0	0	0	6	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6483	
	0	6	0	0	0	6	0	0	0	0		6492	
	0	9	0	0	0	9	0	0	0	0		6521	
	0	28	0	0	0	28	0	0	0	0		6531	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-369/09361 Contd</u>													
	0	9	0	0	0	9	0	0	0	0		6541	
	0	6	43	0	0	6	0	0	0	0		6672	
TOTAL:	46	304	43	0	3	304	0	0	0	0			
<u>HMLA-367/09079</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	1	0	0	0	1	0	0	0	0	0		6502	
	1	0	0	0	1	0	0	0	0	0		6302	
	43	0	43	0	0	0	0	0	0	0		7565	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	1	0	0	0	1	0	0	0	0		6119	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	0	13	0	0	0	13	0	0	0	0		6046	
	0	3	0	0	0	3	0	0	0	0		6047	
	0	9	0	0	0	9	0	0	0	0		6060	
	0	6	0	0	0	6	0	0	0	0		6072	
	0	3	0	0	0	3	0	0	0	0		6074	
	0	6	0	0	0	6	0	0	0	0		6092	
	0	6	0	0	0	6	0	0	0	0		6094	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	1	0	0	0	1	0	0	0	0		6391	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-367/09079 Contd</u>													
	0	6	0	0	0	6	0	0	0	0			6433
	0	3	0	0	0	3	0	0	0	0			6483
	0	6	0	0	0	6	0	0	0	0			6492
	0	9	0	0	0	9	0	0	0	0			6521
	0	28	0	0	0	28	0	0	0	0			6531
	0	9	0	0	0	9	0	0	0	0			6541
	0	6	43	0	0	6	0	0	0	0			6672
TOTAL:	46	304	43	0	3	304	0	0	0	0			
<u>HMLA-269/08998</u>													
USMC	1	0	0	0	1	0	0	0	0	0			6004
	1	0	0	0	1	0	0	0	0	0			6502
	1	0	0	0	1	0	0	0	0	0			6302
	43	0	43	0	0	0	0	0	0	0			7565
	0	72	0	0	0	72	0	0	0	0			6114
	0	1	0	0	0	1	0	0	0	0			6119
	0	12	0	0	0	12	0	0	0	0			6124
	0	3	0	0	0	3	0	0	0	0			6132
	0	48	0	0	0	48	0	0	0	0			6154
	0	13	0	0	0	13	0	0	0	0			6046
	0	3	0	0	0	3	0	0	0	0			6047
	0	9	0	0	0	9	0	0	0	0			6060
	0	6	0	0	0	6	0	0	0	0			6072
	0	3	0	0	0	3	0	0	0	0			6074
	0	6	0	0	0	6	0	0	0	0			6092
	0	6	0	0	0	6	0	0	0	0			6094
	0	45	0	0	0	45	0	0	0	0			6324



II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-269/08998 Contd</u>													
	0	1	0	0	0	1	0	0	0	0		6391	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	
	0	6	0	0	0	6	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6483	
	0	6	0	0	0	6	0	0	0	0		6492	
	0	9	0	0	0	9	0	0	0	0		6521	
	0	28	0	0	0	28	0	0	0	0		6531	
	0	9	0	0	0	9	0	0	0	0		6541	
	0	6	43	0	0	6	0	0	0	0		6672	
TOTAL:	46	304	43	0	3	304	0	0	0	0			
<u>HMLA-167/09898</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	1	0	0	0	1	0	0	0	0	0		6502	
	1	0	0	0	1	0	0	0	0	0		6302	
	43	0	43	0	0	0	0	0	0	0		7565	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	1	0	0	0	1	0	0	0	0		6119	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	0	13	0	0	0	13	0	0	0	0		6046	
	0	3	0	0	0	3	0	0	0	0		6047	
	0	9	0	0	0	9	0	0	0	0		6060	
	0	6	0	0	0	6	0	0	0	0		6072	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-167/09898 Contd</u>													
	0	3	0	0	0	3	0	0	0	0		6074	
	0	6	0	0	0	6	0	0	0	0		6092	
	0	6	0	0	0	6	0	0	0	0		6094	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	1	0	0	0	1	0	0	0	0		6391	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	
	0	6	0	0	0	6	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6483	
	0	6	0	0	0	6	0	0	0	0		6492	
	0	9	0	0	0	9	0	0	0	0		6521	
	0	28	0	0	0	28	0	0	0	0		6531	
	0	9	0	0	0	9	0	0	0	0		6541	
	0	6	43	0	0	6	0	0	0	0		6672	
TOTAL:	46	304	43	0	3	304	0	0	0	0			
<u>HMT-303/55176</u>													
USMC	2	0	0	0	2	0	0	0	0	0		6002	
	2	0	0	0	2	0	0	0	0	0		6004	
	2	0	0	0	2	0	0	0	0	0		6302	
	2	0	0	0	2	0	0	0	0	0		6502	
	0	2	0	0	0	2	0	0	0	0		6023	
	0	8	0	0	0	8	0	0	0	0		6046	
	0	2	0	0	0	2	0	0	0	0		6047	
	0	12	0	0	0	12	0	0	0	0		6060	
	0	5	0	0	0	5	0	0	0	0		6072	
	0	1	0	0	0	1	0	0	0	0		6073	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMT-303/55176 Contd</u>													
	0	3	0	0	0	3	0	0	0	0		6094	
	0	79	0	0	0	79	0	0	0	0		6114	
	0	3	0	0	0	3	0	0	0	0		6119	
	0	8	0	0	0	8	0	0	0	0		6124	
	0	2	0	0	0	2	0	0	0	0		6132	
	0	30	0	0	0	30	0	0	0	0		6154	
	0	3	0	0	0	3	0	0	0	0		6192	
	0	43	0	0	0	43	0	0	0	0		6324	
	0	3	0	0	0	3	0	0	0	0		6391	
	0	4	0	0	0	4	0	0	0	0		6412	
	0	4	0	0	0	4	0	0	0	0		6413	
	0	5	0	0	0	5	0	0	0	0		6414	
	0	3	0	0	0	3	0	0	0	0		6423	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6434	
	0	5	0	0	0	5	0	0	0	0		6483	
	0	3	0	0	0	3	0	0	0	0		6492	
	0	7	0	0	0	7	0	0	0	0		6521	
	0	37	0	0	0	37	0	0	0	0		6531	
	0	5	0	0	0	5	0	0	0	0		6541	
	0	1	0	0	0	1	0	0	0	0		6591	
	<u>25</u>	<u>0</u>	<u>25</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		<u>7565</u>	
TOTAL:	33	284	25	0	8	284	0	0	0	0			

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMA-773/67826</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
<u>HML-771/53908</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HML-771/53908 Contd</u>													
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
<u>HML-767/09415</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMA-775/55252</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
<u>HML-776/53898</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	

II.A.1.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - New (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HML-776/53898 Contd</u>													
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
GRAND TOTAL:	467	2080	428	0	36	2080	0	0	0	0			

II.A.1.c. Total Number of Billets Required by Fleet Support Units and/or Activities - New

<u>FLEET SUPPORT UNIT/ UIC</u>	<u>TOTAL PER UNIT</u>		<u>OPERATION/ AIRCREW</u>		<u>MAINTENANCE</u>		<u>O&amp;M/OTHER</u>		<u>TEAM</u>		<u>DESIG/</u>	<u>PNEC</u>	<u>SNEC</u>
	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>RATING</u>	<u>PMOS</u>	<u>SMOS</u>

No new billets are required to support the AH-1W aircraft.



II.A.2.a. Ready for Operational and Fleet Support Use - Phase Out Schedule

Date: 18 May 92  
Source: PMA276

<u>UNIT/ACTIVITY/SQUADRON/UIC</u>	<u>FY92</u>	<u>FY93</u>	<u>FY94</u>	<u>FY95</u>	<u>FY96</u>
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All AH-1T aircraft have been inducted into modification, and phase out of the AH-1T is complete.

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-169/09202</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	
	0	6	0	0	0	6	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	28	0	0	0	28	0	0	0	0		6531	
	0	9	0	0	0	9	0	0	0	0		6541	
	<u>43</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	46	235	43	0	3	235	0	0	0	0			
<u>HMLA-267/09159</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-267/09159 (Continued)</u>													
USMC	0	6	0	0	0	6	0	0	0	0			6433
	0	3	0	0	0	3	0	0	0	0			6483
	1	0	0	0	1	0	0	0	0	0			6502
	0	28	0	0	0	28	0	0	0	0			6531
	0	9	0	0	0	9	0	0	0	0			6541
	<u>43</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>			7565
TOTAL:	46	235	43	0	3	235	0	0	0	0			
<u>HMLA-369/09361</u>													
USMC	1	0	0	0	1	0	0	0	0	0			6004
	0	72	0	0	0	72	0	0	0	0			6114
	0	12	0	0	0	12	0	0	0	0			6124
	0	3	0	0	0	3	0	0	0	0			6132
	0	48	0	0	0	48	0	0	0	0			6154
	1	0	0	0	1	0	0	0	0	0			6302
	0	45	0	0	0	45	0	0	0	0			6324
	0	3	0	0	0	3	0	0	0	0			6412
	0	6	0	0	0	6	0	0	0	0			6413
	0	6	0	0	0	6	0	0	0	0			6433
	0	3	0	0	0	3	0	0	0	0			6483
	1	0	0	0	1	0	0	0	0	0			6502
	0	28	0	0	0	28	0	0	0	0			6531
	0	9	0	0	0	9	0	0	0	0			6541
	<u>43</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>			7565
TOTAL:	46	235	43	0	3	235	0	0	0	0			

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-367/09079</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	
	0	6	0	0	0	6	0	0	0	0		6433	
	0	3	0	0	0	3	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	28	0	0	0	28	0	0	0	0		6531	
	0	9	0	0	0	9	0	0	0	0		6541	
	<u>43</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	46	235	43	0	3	235	0	0	0	0			
<u>HMLA-167/09898</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	72	0	0	0	72	0	0	0	0		6114	
	0	12	0	0	0	12	0	0	0	0		6124	
	0	3	0	0	0	3	0	0	0	0		6132	
	0	48	0	0	0	48	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	45	0	0	0	45	0	0	0	0		6324	
	0	3	0	0	0	3	0	0	0	0		6412	
	0	6	0	0	0	6	0	0	0	0		6413	

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMLA-167/09898 (Continued)</u>													
USMC	0	6	0	0	0	6	0	0	0	0			6433
	0	3	0	0	0	3	0	0	0	0			6483
	1	0	0	0	1	0	0	0	0	0			6502
	0	28	0	0	0	28	0	0	0	0			6531
	0	9	0	0	0	9	0	0	0	0			6541
	<u>43</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>			7565
TOTAL:	46	235	43	0	3	235	0	0	0	0			
<u>HMLA-269/08998</u>													
USMC	1	0	0	0	1	0	0	0	0	0			6004
	0	72	0	0	0	72	0	0	0	0			6114
	0	12	0	0	0	12	0	0	0	0			6124
	0	3	0	0	0	3	0	0	0	0			6132
	0	48	0	0	0	48	0	0	0	0			6154
	1	0	0	0	1	0	0	0	0	0			6302
	0	45	0	0	0	45	0	0	0	0			6324
	0	3	0	0	0	3	0	0	0	0			6412
	0	6	0	0	0	6	0	0	0	0			6413
	0	6	0	0	0	6	0	0	0	0			6433
	0	3	0	0	0	3	0	0	0	0			6483
	1	0	0	0	1	0	0	0	0	0			6502
	0	28	0	0	0	28	0	0	0	0			6531
	0	9	0	0	0	9	0	0	0	0			6541
	<u>43</u>	<u>0</u>	<u>43</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>			7565
TOTAL:	46	235	43	0	3	235	0	0	0	0			

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMT-303/55176</u>													
USMC	2	0	0	0	2	0	0	0	0	0		6004	
	0	79	0	0	0	79	0	0	0	0		6114	
	0	8	0	0	0	8	0	0	0	0		6124	
	0	2	0	0	0	2	0	0	0	0		6132	
	0	30	0	0	0	30	0	0	0	0		6154	
	2	0	0	0	2	0	0	0	0	0		6302	
	0	43	0	0	0	43	0	0	0	0		6324	
	0	4	0	0	0	4	0	0	0	0		6412	
	0	4	0	0	0	4	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	5	0	0	0	5	0	0	0	0		6483	
	2	0	0	0	1	0	0	0	0	0		6502	
	0	37	0	0	0	37	0	0	0	0		6531	
	0	5	0	0	0	5	0	0	0	0		6541	
	<u>25</u>	<u>0</u>	<u>25</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	31	220	25	0	6	220	0	0	0	0			
<u>HMA-773/67826</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMA-773/67826 Contd</u>													
USMC	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
<u>HML-771/53908</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			

II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HML-767/09415</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
<u>HMA-775/55252</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	



II.A.2.b. Military Billets per Fleet Operational Unit (Including Fleet Readiness Squadrons (FRS)) and/or Activities - Old (Continued)

AIRCRAFT SQUADRON/ EQUIPMENT/ SYSTEM/ SUBSYSTEM DESIGNATION	TOTAL PER SQUADRON/ E/S/S		OPERATION/ AIRCREW		MAINTENANCE		O&M/OTHER		TEAM		DESIG/ RATING	PNEC PMOS	SNEC SMOS
	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL			
<u>HMA-775/55252 (Contd)</u>													
USMC	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
<u>HML-776/53898</u>													
USMC	1	0	0	0	1	0	0	0	0	0		6004	
	0	32	0	0	0	32	0	0	0	0		6114	
	0	5	0	0	0	5	0	0	0	0		6124	
	0	1	0	0	0	1	0	0	0	0		6132	
	0	12	0	0	0	12	0	0	0	0		6154	
	1	0	0	0	1	0	0	0	0	0		6302	
	0	19	0	0	0	19	0	0	0	0		6324	
	0	2	0	0	0	2	0	0	0	0		6412	
	0	3	0	0	0	3	0	0	0	0		6413	
	0	3	0	0	0	3	0	0	0	0		6433	
	0	1	0	0	0	1	0	0	0	0		6483	
	1	0	0	0	1	0	0	0	0	0		6502	
	0	9	0	0	0	9	0	0	0	0		6531	
	0	3	0	0	0	3	0	0	0	0		6541	
	<u>29</u>	<u>0</u>	<u>29</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>		7565	
TOTAL:	32	90	29	0	3	90	0	0	0	0			
GRAND TOTAL:	467	2080	428	0	39	2080	0	0	0	0			

II.A.6. Net Annual Incremental and Cumulative Billet Increases/Decreases - Marines

a. <u>OFFICER</u>	BILLET BASE	FY92		FY93		FY94		FY95		FY96		
		+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	
Fleet Billets	USMC	191	+ 0	191	+ 0	191	+ 0	191	+ 0	191	+ 0	191
Staff Billets (Instructor/Support)	USMC	17	+ 0	17	+ 0	17	+ 0	17	+ 0	17	+ 0	17
Chargeable Student Billets	USMC	0	+ 28	28	- 8	20	+ 2	22	+ 3	25	+ 2	27

b. <u>ENLISTED</u>	BILLET BASE	FY92		FY93		FY94		FY95		FY96		
		+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	
Fleet Billets	USMC	1875	+ 0	1875	+ 0	1875	+ 0	1875	+ 0	1875	+ 0	1875
Staff Billets (Instructor/Support)	USMC	23	+ 0	23	+ 0	23	+ 0	23	+ 0	23	+ 0	23
Chargeable Student Billets	USMC	101	+ 11	112	- 22	90	+ 5	95	+ 13	108	- 5	103

II.B.2. Fleet and Fleet Support Adjusted Annual Training Input Requirements - Skill Progression and Functional Training

COURSE/ TYPE OF TRAINING	ACDU/TAR SELRES	DESIG RATING	PNEC PMOS	SNEC SMOS	CIN	FY92		FY93		FY94		FY95		FY96	
						OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
AH-1W Pilot Training (course length includes T&R syllabus)	USMC		7565		2C-3356	123	0	120	0	131	0	126	0	127	0
Course Length:	21.0	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.4								
H-1 COM/NAV/ELECT Weapons System Organizational Maintenance	USMC		6324		102-2024	0	154	0	143	0	152	0	154	0	146
Course Length:	18.4	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.3								
H-1 Power Plants and Related Organizational Maint.	USMC		6114		601-2014	0	239	0	221	0	238	0	244	0	226
Course Length:	14.8	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.2								
A/UH-1 Airframe and Hydraulic System Organizational Maintenance	USMC		6154		602-2081	0	97	0	87	0	90	0	97	0	87
Course Length:	11.4	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.1								

II.B.2. Fleet and Fleet Support Adjusted Annual Training Input Requirements - Skill Progression and Functional Training (Continued)

COURSE/ TYPE OF TRAINING	ACDU/TAR SELRES	DESIG RATING	PNEC PMOS	SNEC SMOS	CIN	FY92		FY93		FY94		FY95		FY96	
						OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
Rotary Wing Armament System Organizational Maintenance	USMC		6531		646-2044	0	80	0	74	0	75	0	77	0	74
Course Length:	10.2	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.2								
T-400/T-700 Engine First Degree Intermediate Maintenance	USMC		6124		601-3027	0	48	0	50	0	52	0	50	0	47
Course Length:	7.6	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.2								
Helicopter Dynamic Component Intermediate Maintenance	USMC		6132		601-3090	0	8	0	9	0	11	0	12	0	12
Course Length:	4.2	Course Attrition Factor:	0%	Sea Tour Length:	36.0	Backout Factor:	0.1								

II.B.2. Fleet and Fleet Support Adjusted Annual Training Input Requirements - Skill Progression and Functional Training (Continued)

COURSE/ TYPE OF TRAINING	ACDU/TAR SELRES	DESIG RATING	PNEC PMOS	SNEC SMOS	CIN	FY92		FY93		FY94		FY95		FY96	
						OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
H-1 ACFT Elect/Inst/AFCS Intermediate Maint.	USMC		6433		602-5811	0	20	0	23	0	23	0	21	0	20

Course Length: 10.8      Course Attrition Factor: 0%      Sea Tour Length: 36.0      Backout Factor: 0.2

II.B.5. Total Number of Instructor and Support Personnel Required for Training Activities

SCHOOL/ LOCATION/ UIC	REQUIRED ON BOARD DATE	OPER/ AIRCREW COURSE		MAINT COURSE		OPER & MAINT COURSE		TEAM COURSE		SUPPORT PERSONNEL		ACDU/ TAR/ SELRES	DESIG/ RATING	PNEC PMOS	SNEC SMOS
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL				
NAMTGD 1030/ MCAS Camp 66063	JAN 88	0	0	0	6	0	0	0	0	0	0	USMC		6114	9502
	JAN 88	0	0	0	2	0	0	0	0	0	0	USMC		6124	9502
	JAN 88	0	0	0	2	0	0	0	0	0	0	USMC		6154	9502
	JAN 88	0	0	0	1	0	0	0	0	0	0	USMC		6324	9502
	JAN 88	0	0	0	1	0	0	0	0	0	0	USMC		6324	9502
	JAN 88	0	0	0	2	0	0	0	0	0	0	USMC		6324	9502
	JAN 88	0	0	0	1	0	0	0	0	0	0	USMC		6324	9502
	JAN 88	0	0	0	1	0	0	0	0	0	0	USMC		6434	9502
	JAN 88	0	0	0	1	0	0	0	0	0	0	USMC		6434	9502
	JAN 88	0	0	0	1	0	0	0	0	0	0	USMC		6531	9502
	JAN 88	0	0	0	3	0	0	0	0	0	0	USMC		6531	9502
	<u>USN SUBTOTAL:</u>		0	0	0	0	0	0	0	0	0	0			
<u>USMC SUBTOTAL:</u>		0	0	0	23	0	0	0	0	0	0				
<u>USN TOTAL:</u>		0	0	0	0	0	0	0	0	0	0				
<u>USMC TOTAL:</u>		0	0	0	23	0	0	0	0	0	0				

II.B.6. Total Annual Training Input Requirements to Attain and Sustain Fleet, Fleet Support, Industrial, Foreign, Non-Military, Reserve, Instructor, and Support Requirements

<u>COURSE/ TYPE OF TRAINING</u>	<u>SOURCE OF REQUIREMENT</u>	<u>ACDU/ TAR/ SELRES</u>	<u>PNEC PMOS</u>	<u>SNEC SMOS</u>	<u>FY92</u>		<u>FY93</u>		<u>FY94</u>		<u>FY95</u>		<u>FY96</u>	
					<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>
<u>OPERATION/AIRCREW</u>														
2C-3356/ AH-1W Pilot Training (course length includes T&R syllabus)	Fleet and Fleet Support	USMC	7565		123	0	120	0	131	0	126	0	127	0
<u>MAINTENANCE</u>														
102-2024/ H-1 COM/NAV/ELECT Weapons System Organizational Maintenance	Fleet and Fleet Support	USMC	6324		0	154	0	143	0	152	0	154	0	146
601-2014/ AH-1W and UH-1N Power Plants, Power Trains, and Rotors Organizational Maintenance	Fleet and Fleet Support	USMC	6114		0	239	0	221	0	238	0	244	0	226
602-2081/ AH/UH-1 Airframe and Hydraulic System Organizational Maintenance	Fleet and Fleet Support	USMC	6154		0	97	0	87	0	90	0	97	0	87

II.B.6. Total Annual Training Input Requirements to Attain and Sustain Fleet, Fleet Support, Industrial, Foreign, Non-Military, Reserve, Instructor, and Support Requirements (Continued)

<u>ACDU/ COURSE/ TYPE OF TRAINING</u>	<u>SOURCE OF REQUIREMENT</u>	<u>TAR/ SELRES</u>	<u>PNEC PMOS</u>	<u>SNEC SMOS</u>	<u>FY92</u>		<u>FY93</u>		<u>FY94</u>		<u>FY95</u>		<u>FY96</u>	
					<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>	<u>OFF</u>	<u>ENL</u>
<u>MAINTENANCE (Continued)</u>														
646-2044/ Rotary Wing Armament System Organizational Maintenance	Fleet and Fleet Support	USMC	6531		0	80	0	74	0	75	0	77	0	74
601-3027/ T-700 Engine First Degree Intermed. Maint.	Fleet and Fleet Support	USMC	6124		0	48	0	50	0	52	0	50	0	47
601-3090/ Helicopter Dynamic Component Intermediate Maintenance	Fleet and Fleet Support	USMC	6132		0	8	0	9	0	11	0	12	0	12
602-5811/ H-1/ACFT Elect/Inst/Flight Control Equipment Intermed. Maint.	Fleet and Fleet Support	USMC	6433		0	20	0	23	0	23	0	21	0	20



PART III - TRAINING REQUIREMENTS

III.A. TRAINING COURSE AND TRAINING INPUT REQUIREMENTS

III.A.1. Initial Training

<u>LOCATION/UIC</u>	<u>COURSE/ TYPE OF TRAINING</u>	<u>COURSE DEVEL- OPER/INSTRUCTOR</u>	<u>DATE BEGIN</u>	<u>COURSE LENGTH</u>	<u>STUDENTS</u>			<u>ACTIVITY DESTINATION</u>
					<u>OFF</u>	<u>ENL</u>	<u>CIV</u>	
MCAS Camp Pendleton	NTS OPEVAL Initial Pilot Training	BHTI	Apr 93	1.0 weeks	8	0	0	VX-5
	NTS OPEVAL "O" level Maintenance Training	BHTI	Apr 93	1.5 weeks	0	12	2	VX-5
	NTS Cadre Training Opr/Maint (1st Sqdn)	BHTI	June 94	2.5 weeks	8	12	1	HMLA 369
TBD HMT 303	NTS Cadre Training Opr/Maint (2nd Sqdn)	TBD	Apr 95	2.5 weeks	8	12	1	
MCAS Camp Pendleton	NTS CMT Cadre Training	TBD	Oct 94	1.0 weeks	0	12	0	NAMTGD 1030
MCAS New River	East Coast ARC-210,/ AN/ASN-163 Maint. Initial Training	TBD	TBD	TBD	TBD			MAG-29/26
MCAS Camp Pendleton	West Coast ARC-210,/ AN/ASN-163 Opr/Maint Initial Training	TBD	TBD	TBD	TBD			MAG-39
MCAS New River	WST instructor training ( <u>Note</u> )	TBD	TBD	TBD	TBD			New River ISEO

Note: WST instructor training at New River will be scheduled as required to accommodate personnel turnover

III.A.2. Follow-on Training (Operation, Maintenance, Operation and Maintenance, Team and Prerequisite)

TRAINING ACTIVITY/ LOCATION/UIC	COURSE/ TYPE OF TRAINING	DATE BEGIN/ COURSE LENGTH/ MAX CLASS SIZE/ ACDU/TAR/SELRES	FY92		FY93		FY94		FY95		FY96		
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
HMT-303/ MCAS Camp Pendleton/ 55176	C- 2C-3356/ AH-1W Pilot Training (course length includes T&R syllabus)	Nov 91 21.0 Weeks 6 USMC	73	0	53	0	59	0	66	0	72	0	(Total Input)
			73	0	53	0	59	0	66	0	72	0	(M Input)
			73	0	53	0	59	0	66	0	72	0	(M Output)
			27.6	0.0	20.0	0.0	22.3	0.0	25.0	0.0	27.2	0.0	(M AOB)
			27.6	0.0	20.0	0.0	22.3	0.0	25.0	0.0	27.2	0.0	(MChargeable)
HMT-303/ FREST/MCAS Camp Pendleton/ 66063	M-102-2024/ H-1 COM/NAV/ELECT Weapons System Organizational Maintenance	Oct 94 21.0 Weeks 6 USMC	0	127	0	96	0	104	0	112	0	111	(Total Input)
			0	127	0	96	0	104	0	112	0	111	(M Input)
			0	127	0	96	0	104	0	112	0	111	(M Output)
			0.0	30.6	0.0	23.1	0.0	25.1	0.0	27.0	0.0	26.8	(M AOB)
			0.0	30.6	0.0	23.1	0.0	25.1	0.0	27.0	0.0	26.0	(MChargeable)
HMT-303/ FREST/MCAS Camp Pendleton/ 66063	M-601-2014/ AH-1W and UH-1N Power Plants, Power Trains, and Rotors Organizational Maint.	Oct 94 14.8 Weeks 6 USMC	0	192	0	145	0	158	0	178	0	171	(Total Input)
			0	192	0	145	0	158	0	178	0	171	(M Input)
			0	192	0	145	0	158	0	178	0	171	(M Output)
			0.0	38.4	0.0	29.0	0.0	31.6	0.0	35.6	0.0	34.2	(AOB)
			0.0	38.4	0.0	29.0	0.0	31.6	0.0	35.6	0.0	34.2	(MChargeable)
HMT-303/ FREST/MCAS Camp Pendleton/ 66063	M-602-2081/ AH-/UH-1 Airframe and Hydraulic System Organizational Maintenance	Oct 94 11.4 Week 6 USMC	0	81	0	60	0	60	0	73	0	67	(Total Input)
			0	81	0	60	0	60	0	73	0	67	(M Input)
			0	81	0	60	0	60	0	73	0	7	(M Output)
			0.0	8.7	0.0	6.4	0.0	6.4	0.0	7.8	0.0	7.2	(M AOB)
			0.0	8.7	0.0	6.4	0.0	6.4	0.0	7.8	0.0	7.2	(MChargeable)

III.A.2. Follow-on Training (Operation, Maintenance, Operation and Maintenance, Team and Prerequisite) (Continued)

TRAINING ACTIVITY/ LOCATION/UIC	COURSE/ TYPE OF TRAINING	DATE BEGIN/ COURSE LENGTH/ MAX CLASS SIZE/ ACDU/TAR/SELRES	FY92		FY93		FY94		FY95		FY96		
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
HMT-303 FREST/ MCAS Camp Pendleton/ 66063	M-646-2044/ Rotary Wing	Oct 94 10.2 Weeks	0	67	0	51	0	52	0	59	0	59	(Total Input)
	Armament System	6	0	67	0	51	0	52	0	59	0	59	(M Input)
	Organizational	USMC	0.0	14.3	0.0	10.9	0.0	11.1	0.0	12.6	0.0	12.6	(M Output)
	Maintenance		0.0	14.3	0.0	10.9	0.0	11.1	0.0	12.6	0.0	12.6	(M AOB)
				0.0	14.3	0.0	10.9	0.0	11.1	0.0	12.6	0.0	12.6
EAMTMU/ NAS Memphis (NAMTGD 1030)/ 67290	M-601-3027/ T-700 Engine	Oct 92 8.0 Weeks	0	0	0	36	0	36	0	37	0	37	(Total Input)
	First Degree	6	0	0	0	36	0	36	0	37	0	37	(M Input)
	Intermediate	USMC	0.0	0.0	0.0	5.3	0.0	5.3	0.0	5.5	0.0	5.5	(M Output)
	Maintenance		0.0	0.0	0.0	5.3	0.0	5.3	0.0	5.5	0.0	5.5	(M AOB)
				0.0	0.0	0.0	5.3	0.0	5.3	0.0	5.5	0.0	5.5
EAMTMU/ NAS Memphis (NAMTGD 1028)/ 67290	M-601-3090/Heli- copter Dynamic	Nov 90 5.6 Weeks	0	7	0	7	0	7	0	7	0	7	(Total Input)
	Component Inter-	6	0	7	0	7	0	7	0	7	0	7	(M Input)
	mediate Maint.	USMC	0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7	(M Output)
			0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7	(M AOB)
				0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7	0.0	0.7
HMT-303 FREST/ MCAS Camp Pendleton/ 66063	M-602-5811/ H-1/ACFT	Apr 89 10.8 Weeks	0	16	0	15	0	15	0	15	0	15	(Total Input)
	Elect/Inst/Flight	6	0	16	0	15	0	15	0	15	0	15	(M Input)
	Control Equipment	USMC	0.0	3.2	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0	(M Output)
	Intermediate Maint.		0.0	3.2	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0	(M AOB)
				0.0	3.2	0.0	3.0	0.0	3.0	0.0	3.0	0.0	3.0
			FY92		FY93		FY94		FY95		FY96		
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
<u>TOTAL NAVY CHARGEABLE BILLETS:</u>			0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
<u>TOTAL MARINE CORPS CHARGEABLE BILLETS:</u>			27.6	111.9	20.0	90.4	22.3	95.2	25.0	106.8	27.2	103.4	

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the AH-1W and, therefore, are not included in Part IV of this NTP:

IV.B.1. Training Services

IV.C. FACILITY SUPPORT REQUIREMENTS

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

IV.C.2. Facility Requirements Detailed by Activity by Course

IV.C.3. Facility Project Summary by Program

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

IV.A. TRAINING HARDWARE REQUIREMENTS

IV.A.1 Technical Training Equipment

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM NUMBER</u>	<u>SYSTEM EQUIPMENT</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>	
AH-1W TOW/Hell- fire Control and Display System Organizational Maintenance/ C-198-3351	NAMTGD 1030/ MCAS Camp Pendleton/ 66063	0001	Launcher XM65 (TOW)	2	Apr 89	RDD
					Apr 89	RFT
		0002	Launcher M272 (HLFR)	2	Apr 89	RDD
					Apr 89	RFT
		0003	Training Missile (HLFR) Inert	2	Apr 89	RDD
					Apr 89	RFT
		0004	HELLFIRE missile container	2	Apr 89	RDD
					Apr 89	RFT
		0005	TOW tube empty	2	Apr 89	RDD
			Apr 89	RFT		
0006	Helmet Sight Assembly	2	Apr 89	RDD		
			Apr 89	RFT		
0007	Pylon Adapter ADU-299A/A	1	Apr 89	RDD		
			Apr 89	RFT		
0008	Launcher LAU-7	1	Apr 89	RDD		
			Apr 89	RFT		
0009	Nitrogen Receiver	1	Apr 89	RDD		
			Apr 89	RFT		

IV.A.1 Technical Training Equipment (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM NUMBER</u>	<u>SYSTEM EQUIPMENT</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>	
AH-1W TOW/Hell- fire Control and Display System Organizational Maintenance/ C-198-3351 (Continued)	NAMTGD 1030/ MCAS Camp Pendleton/ 66063 (Continued)	0010	Hydraulic Cart Assembly AHT-64	1	Apr 89	RDD
		0011	SIDEWINDER Stand Assembly	1	Apr 89	RDD
		0012	Helmet SPH-3C	1	Apr 89	RDD
		0013	AUR Training Missile ATM-9L (inert)	1	Apr 89	RDD
		0014	LAU-7/A Power Supply	1	Apr 89	RDD
		0015	Laser Range Panel	1	Jan 95	RDD
		0016	Laser Code Panel	1	Jan 95	RDD
		0017	FLIR Electronics Box	1	Jan 95	RDD
		0018	Processing Electronics Box	1	Jan 95	RDD
		0019	Cockpit Control Unit	1	Jan 95	RDD
		0020	Recorder, Video	1	Jan 95	RDD
0021	TSU Assembly	1	Jan 95	RDD		

Jan 95 RFT

IV.A.1 Technical Training Equipment (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM NUMBER</u>	<u>SYSTEM EQUIPMENT</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>	
H-1 Airframes Systems Integrated Organizational Maintenance/ Hydraulic Contamination Kit C-600-9363	HMT-303 FREST MCAS Camp Pendleton/ 66063	0022	Hydraulic Servicing Unit XAS1832	1	Oct 94	RDD
					Oct 94	RFT
AH-1W Powertrain and Related Systems Integrated Organizational Maintenance/ C-601-9351	HMT-303/ MCAS Camp Pendleton/ 66063	0023	T700-GE-401 Engine and Combining Gearbox	1*	Oct 94	RDD
					Oct 94	RFT
		0024	Transmission and Mast Assembly	1*	Oct 94	RDD
					Oct 94	RFT
		0025	Main Rotor Blades and Hub	1*	Oct 94	RDD
					Oct 94	RFT
		0026	Tail Rotor Assembly	1*	Oct 94	RDD
			Oct 94	RFT		
		0027	90 Degree Gearbox	1*	Oct 94	RDD
					Oct 94	RFT
		0028	42 Degree Gearbox	1*	Oct 94	RDD
					Oct 94	RFT
		0029	Tail Rotor Drive Shaft	1*	Oct 94	RDD
					Oct 94	RFT

\* - Initial Production Equipment Provided



IV.A.1 Technical Training Equipment (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM NUMBER</u>	<u>SYSTEM EQUIPMENT</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>	
H-1 Electrical and SCAS Integrated Organizational Maintenance/ C-602-9360	HMT-303 FREST MCAS Camp Pendleton/ 66063	0030	SCAS Actuator	1	Oct 94	RDD
		0031	AFCS Actuator	1	Oct 94	RDD
		0032	SCAS/AFCS Control Panel	1	Oct 94	RDD
H-1 Armament Repair Integrated Organizational Maintenance/ C-646-9361	HMT-303 FREST MCAS Camp Pendleton 66063	0033	Launcher XM65 (TOW)	2	Oct 94	RDD
		0034	Launcher M272 (HLFR)	2	Oct 94	RDD
		0035	Training Missile (HLFR) Inert	2	Oct 94	RDD
		0036	HELLFIRE missile container	2	Oct 94	RDD
		0037	TOW tube empty	2	Oct 94	RDD
		0038	Helmet Sight Assembly	2	Oct 94	RDD
		0039	Pylon Adapter ADU-299A/A	1	Oct 94	RDD
0040	Launcher LAU-7	1	Oct 94	RDD		

IV.A.1 Technical Training Equipment (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM NUMBER</u>	<u>SYSTEM EQUIPMENT</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>	
H-1 Armament Repair Organizational Maintenance/ C-646-9361 (Continued)	HMT-303 FREST MCAS Camp Pendleton/ 66063 (Continued)	0041	Hydraulic Cart Assembly AHT-64	1	Oct 94	RDD
					Oct 94	RFT
		0042	SIDEWINDER Stand Assembly	1	Oct 94	RDD
					Oct 94	RFT
		0043	Helmet SPH-3C	1	Oct 94	RDD
					Oct 94	RFT
		0044	AUR Training Missile ATM-9L (inert)	1	Oct 94	RDD
					Oct 94	RFT
		0045	LAU-7/A Power Supply	1	Oct 94	RDD
					Oct 94	RFT
		0046	28VDC External Power Cart	1	Oct 94	RDD
			Oct 94	RFT		
0047	Nitrogen Receiver	1	Oct 94	RDD		
			Oct 94	RFT		
0048	Laser Range Panel	1	Oct 94	RDD		
			Oct 94	RFT		
0049	Laser Code Panel	1	Oct 94	RDD		
			Oct 94	RFT		
0050	FLIR Electronics Box	1	Oct 94	RDD		
			Oct 94	RFT		
0051	Processing Electronics Box	1	Jan 95	RDD		
			Jan 95	RFT		

IV.A.1 Technical Training Equipment (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM NUMBER</u>	<u>SYSTEM EQUIPMENT</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>	
H-1 Armament Repair Integrated Organizational Maintenance/ C-646-9361 (Continued)	HMT-303 FREST MCAS Camp Pendleton/ 66063 (Continued)	0052	Cockpit Control Unit	1	Jan 95	RDD
					Jan 95	RFT
		0053	Recorder, Video	1	Jan 95	RDD
					Jan 95	RFT
		0054	TSU Assembly	1	Jan 95	RDD
					Jan 95	RFT

IV.A.2 Test Equipment - General Purpose/Special Purpose/Special Tools

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u>	<u>SPECIAL PURPOSE</u>	<u>SPECIALTOOLS</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>	
AH-1W TOW/Hell- fire Control and Display Systems Organizational Maintenance/ C-198-3351	NAMTGD 1030 MCAS Camp Pendleton/ 66063		Air Data Tester TTU-205 C/E		1	Apr 89	
			Round Fire Simulator		1	Apr 89	
			Helmet Alignment Set		1	Jan 95	
			Shipboard Automated Boresight Equipment (SABE)		1	Jan 95	
				Wrench Ejector Rack		1	Apr 89
				Ground Safety Pin P/N 1315AS100		1	Apr 89
				Launcher Detent Wrench		1	Apr 89
				Bottle Wrench Nitrogen		1	Apr 89
				AN/USM-625A Weapons Sys Test Set		1	Jan 95
				Adapter, TSU Purge		1	Jan 95
		VTS450A-580 Regulator		1	Jan 95		
		Wrench, Desiccator TSU Handling		1	Jan 95		

IV.A.2 Test Equipment - General Purpose/Special Purpose/Special Tools

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u>	<u>SPECIAL PURPOSE</u>	<u>SPECIALTOOLS</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>
AH-1/UH-1 Airframes Organizational Maintenance/ C-600-3360	NAMTGD 1030/ MCAS Camp Pendleton/ 66063			Push Pull Gauge	1	Apr 89
				Balancer, Vibrex	1	Apr 89
AH-1W Powertrain and Related Systems Organizational Maintenance/ C-601-3351	NAMTGD 1030/ MCAS Camp Pendleton/ 66063			Simulator Whirley Gig	1	Apr 89
				Dial Indicator	1	Apr 89
				Machinery Level	1	Apr 89
				Spring Scale 0-25 Lbs	1	Apr 89
				Spring Scale 0-150 Lbs	1	Apr 89
				Heat Gun	1	Apr 89
				Torque Multiplier	1	Apr 89
				Socket, Main Rotor Nut	1	Apr 89
				Bar PD2718-2	1	Apr 89
				Reaction Adapter	1	Apr 89
				Transmission Adapter	1	Apr 89
				Mast Adapter	1	Apr 89
				Grip Positioning Tool	1	Apr 89
				Jackscrew Set	1	Apr 89

IV.A.2 Test Equipment - General Purpose/Special Purpose/Special Tools

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u>	<u>SPECIAL PURPOSE</u>	<u>SPECIALTOOLS</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>
AH-1W Powertrain and Related Systems Organizational Maintenance/ C-601-3351 (Continued)	NAMTGD 1030/ MCAS Camp Pendleton/ 66063 (Continued)			Hub Positioning Tool	1	Apr 89
				Pedestal Assembly	1	Apr 89
				Blade Alignment Tool	1	Apr 89
				Sling Assembly	1	Apr 89
				Centering Adapter	1	Apr 89
				Plate, Cover and Lift	1	Apr 89
				Dragbrace Wrench	1	Apr 89
				Torque Multiplier T101897	1	Apr 89
				Clevis, Lifting Eye	1	Apr 89
				Nut T101898	1	Apr 89
				Drift, Blade Bolt	1	Apr 89
				Puller, Blade Bolt	1	Apr 89
				Drag Brace Wrench T102064	1	Apr 89
				Jackscrew Set	1	Apr 89
				Spanner Wrench	1	Apr 89
		Whiffletree Wrench	1	Apr 89		
		Lifting Sling	1	Apr 89		

IV.A.2 Test Equipment - General Purpose/Special Purpose/Special Tools

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u>	<u>SPECIAL PURPOSE</u>	<u>SPECIAL TOOLS</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>
AH-1W Powertrain and Related Systems Organizational Maintenance/ C-601-3351 (Continued)	NAMTGD 1030/ MCAS Camp Pendleton/ 66063 (Continued)			Stand, Adapter	1	Apr 89
				Transmission Jack	1	Apr 89
				Plate, Assembly	1	Apr 89
				Plate, Target	1	Apr 89
				Plate, Assembly	1	Apr 89
				Housing Assembly	1	Apr 89
				Support Assembly, Blade	1	Apr 89
				Borescope Kit	1	Apr 89
				Support Assembly 214-782-003-1	1	Apr 89
				Turnbuckle	1	Apr 89
				Protractor	1	Apr 89
				Tool, Rigging Right Hand Engine	1	Apr 89
				Gauge, Depth Dial	1	Apr 89
				Transit	1	Apr 89
		Target	1	Apr 89		
		Shackle	1	Apr 89		

IV.A.2 Test Equipment - General Purpose/Special Purpose/Special Tools

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u>	<u>SPECIAL PURPOSE</u>	<u>SPECIAL TOOLS</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>	
Armament Repair Organizational Maintenance/ C-646-3361	NAMTGD 1030/ MCAS Camp Pendleton/ 66063		Air Data Tester		1	Apr 89	
			TTU-205 C/E				
			Round Fire Simulator		1	Apr 89	
			Helmet Alignment Set		1	Jan 95	
			SABE		1	Jan 95	
					Wrench Ejector Rack	1	Apr 89
					Ground Safety Pin P/N 1315AS100	1	Apr 89
					Launcher Detent Wrench	1	Apr 89
					Bottle Wrench Nitrogen	1	Apr 89
					AN/USM-625A Weapons Sys Test Set	1	Jan 95
					Adapter, TSU Purge	1	Jan 95
					VTS450A-580 Regulator	1	Jan 95
					Wrench, Desiccator	1	Jan 95
					TSU Handling Adapter	1	Jan 95



IV.A.3. Electronic Test Equipment - General Purpose/Special Purpose

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u> <u>ELECTRONIC TEST EQUIPMENT</u>	<u>SPECIAL PURPOSE</u> <u>ELECTRONIC TEST EQUIPMENT</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>
H-1 COM/NAV/ IDENT and Related Systems Integrated Organizational Maintenance/ C-102-9354	HMT-303 FREST MCAS Camp Pendleton/ 66063	AN/ASM-663 Radio, Test Set		1	Oct 94
			AN/ASM-345 Analyzer, Compass Set	1	Oct 94
			Multimeter Digital 27/AN	1	Oct 94
			H-1-73B/AIC Headset, Electrical	1	Oct 94
AH-1W TOW/Hell- fire Control and Display Systems Organizational Maintenance/ C-198-9351	HMT-303 FREST/ MCAS Camp Pendleton/ 66063		Laser Target Simulator	2	Oct 94
			Test Set AN/AWM-98	1	Oct 94
			Indicator Rate of Flow GMU-24A/A	1	Oct 94
			Multimeter Simpson 260	1	Apr 89
			Digital Multimeter	1	Apr 89
			Test Set IR Source TTU-304/E	1	Apr 89
			Guided Missile Test Set (TSGMLACA)	1	Apr 89
			Weapon System Test Set (WSTS) AN/USM-471	1	Apr 89
Guided Missile Launcher Test	1	Apr 89			

Set AN/USM-464

IV.A.3. Electronic Test Equipment - General Purpose/Special Purpose (Continued)

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u> <u>ELECTRONIC TEST EQUIPMENT</u>	<u>SPECIAL PURPOSE</u> <u>ELECTRONIC TEST EQUIPMENT</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>
AH-1W TOW/Hell- fire Control and Display Systems Organizational Maintenance/ C-198-3351 (Continued)	NAMTGD 1030/ MCAS Camp Pendleton 66063/ (Continued)		Fire Control System Test Set	1	Apr 89
			Armament Control System Test Set	1	Apr 89
AH-1W Powertrain and Related Systems Organizational Maintenance/ C-601-3351	NAMTGD 1030/ MCAS Camp Pendleton/ 66063	Multimeter Digital 27/AN		1	Apr 89
AH-1W Electrical and SCAS Organizational Maintenance/ C-602-3360	NAMTGD 1030/ MCAS Camp Pendleton/ 66063	Multimeter Digital 27/AN		2	Apr 89
		Test Set, Stab Control		1	Apr 89
		Oscilloscope 2246-1Y		1	Apr 89
		VSS Break Out Box		1	Apr 89

IV.A.3. Electronic Test Equipment - General Purpose/Special Purpose (Continued)

<u>COURSE/TYPE</u> <u>TYPE OF TRAINING</u>	<u>TRAINING</u> <u>ACTIVITY/</u> <u>LOCATION/UIC</u>	<u>GENERAL PURPOSE</u> <u>ELECTRONIC TEST EQUIPMENT</u>	<u>SPECIAL PURPOSE</u> <u>ELECTRONIC TEST EQUIPMENT</u>	<u>QTY.</u> <u>REQD</u>	<u>DATE</u> <u>REQD</u>
Armament Repair Organizational Maintenance/ C-646-3361	NAMTGD 1030/ MCAS Camp Pendleton/ 66063		Laser Target Simulator P/N 838105-1	1	Apr 89
			Test Set, Simulator P/N 1691AS200	1	Apr 89
			Guided Missile Test Set P/N 11499002	1	Apr 89
			Test Set P/N 1090059-100	1	Apr 89
			Test Set, Guided Missile (MTS) AN/ASM-464	1	Apr 89
			Weapon System Test Set (WSTS) AN/USM-471	1	Apr 89
			Boresight Equipment (SABE)	1	Apr 89
			Test Set, Fire Control	1	Apr 89
			Test Set, Countermeasures AN/ALM-164	1	Apr 89
			Test Set, Armament	1	Apr 89
		Multimeter, Digital P/N 8000A/BOX80K40-5	1	Apr 89	

IV.A.4. Repair Parts for Technical Training Equipment

<u>COURSE/TYPE</u>	TRAINING ACTIVITY/ <u>LOCATION/UIC</u>	<u>TECHNICAL TRAINING EQUIPMENT</u>	<u>TYPE AND RANGE OF REPAIR PARTS</u>	DATE <u>REQ</u>
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Repair parts are supplied through the Aviation Supply Office.  
MSD was achieved in October 1989.

IV.A.5. Training Devices (Continued)

Description of Device: The Aircrew Procedures Trainer (APT). The APT provides cockpit familiarization, normal and emergency procedures and mission planning training, weapons training, and instrument training.

Manufacturer: Manned Flight Simulator Systems Contract Number: Airtask  
 Engineering Test Directorate, NAWC Pax.

TDRD Status: NA

TEE Status: NA

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>DEVICE</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>
AH-1W Pilot Training (course length includes T&R syllabus)/ C-2C-3356	HMT 303 FREST MCAS Camp Pendleton/ 66063	Aircrew Procedures Trainer (APT) Apt #1	4 1	Dec 93 RFT Sep 94

IV.A.5. Training Devices (Continued)

Description of Device: The AH-1W Composite Maintenance Trainer is an AH-1W aircraft containing some unserviceable (Non-RFI) components. Minor modifications were made to make the trainer safe for training.

Manufacturer: Bell Helicopter Textron, Inc. Contract Number: N00019-85-C-0091

TDRD Status: NA

TEE Status: NA

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>DEVICE</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>
H-1 COM/NAV IDENT and Related Systems Integrated Organizational Maintenance/ C-102-9354	HMT-303 FREST MCAS Camp Pendleton/ 66063	Composite Maintenance Trainer (CMT 667)	1	RFT
H-1 TOW/Hell- fire Control and Display Systems Integrated Organizational Maintenance/ C-198-9351	HMT-303 FREST MCAS Camp Pendleton/ 66063	Composite Maintenance Trainer (CMT 678)	1	RFT

NOTE: The Composite Maintenance Trainers are used for all organizational maintenance courses.

IV.A.5. Training Devices (Continued)

Description of Device: Cockpit Control System Part Task Trainer. An actual CDU-800 for practicing in the Ready Room. Update to reflect the AN/ARC-210 EP radio, EGI and ARN-153.

Manufacturer: Collins Aircraft - Rockwell International  
Cedar Rapids, Iowa

Contract Number: NA

TDRD Status: NA

TEE Status: NA

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>DEVICE</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>
AH-1W Pilot Training/ C-2C-3356	AH-1W Squadrons	Cockpit Control System (CCS) Part Task Trainer	10	Jan 95



IV.A.5. Training Devices (Continued)

Description of Device: Thermal Image Sensor Performance Trainer (TISP). Software generated on a PC which duplicates thermal imagery - FLIR Recognition Trainer.

Manufacturer: DCS Corporation  
Alexandria, Virginia

Contract Number: N00019-93-C-0017

TDRD Status: NA

TEE Status: NA

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>DEVICE</u>	<u>QTY. REQD</u>	<u>DATE REQD</u>
AH-1W Pilot Training/ C-2C-3356	AH-1W Squadrons	Thermal Image Sensor Performance Trainer	10	Apr 94

IV.B.2. Curricula Materials

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TYPE OF MATERIAL</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
H-1 COM/NAV/ IDENT and Related Systems Integrated Organizational Maintenance/ C-102-9354	HMT-303 FREST MCAS Camp Pendleton/ 66063	Curriculum Outline	2	May 95
		Instructor Lesson Guides	2	
		Student Guides	8	
		Student Evaluations	8	
H-1 TOW/Hell- fire Control and Display Systems Integrated Organizational Maintenance/ C-198-9351	HMT-303 FREST MCAS Camp Pendleton/ 66063	Curriculum Outline	2	Oct 94
		Instructor Lesson Guides	2	
		Student Guides	8	
		Student Evaluations	8	
H-1 Airframes Integrated Organizational Maintenance/ C-600-9360	HMT-303 FREST MCAS Camp Pendleton/ 66063	Curriculum Outline	2	Oct 94
		Instructor Lesson Guides	2	
		Student Guide	8	
		Student Evaluations	8	

IV.B.2. Curricula Materials (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TYPE OF MATERIAL</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W Powertrain and Related Systems Integrated Organizational Maintenance/ C-601-9351	HMT-303 FREST MCAS Camp Pendleton/ 66063	Curriculum Outline	2	Oct 94
		Instructor Lesson Guides	2	
		Student Guides	8	
		Student Evaluations	8	
H-1 Electrical and SCAS Integrated Organizational Maintenance/ C-602-9360	HMT-303 FREST MCAS Camp Pendleton/ 66063	Curriculum Outline	2	Nov 88
		Instructor Lesson Guides	2	
		Student Guides	8	
		Student Evaluations	8	
Cadre Training for new systems as required	As Required	Curriculum Outline	2	Nov 88
		Instructor Lesson Guides	2	
		Student Guides	8	
		Student Evaluations	8	

IV.B.3. Training Aids (Instructional Aids)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM/TITLE</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W COM/NAV/ IDENT and Related Systems Organizational Maintenance/ C-102-3354	HMT-303 FREST MCAS Camp Pendleton/ 66063	Transparencies	2 Sets	Nov 88
AH-1W TOW/Hell- fire Control and Display Systems Organizational Maintenance/ C-198-3351	HMT-303 FREST MCAS Camp Pendleton/ 66063	Film BF-1721 Boresighting Procedures with SABE  Transparencies	1  2 Sets	Nov 88  Nov 88
H-1 Hydraulic Systems Integrated Organizational Maintenance/ C-600-9361	HMT-303 FREST MCAS Camp Pendleton/ 66063	Transparencies	2 Sets	Oct 94
AH-1W Powertrain and Related Systems Organizational Maintenance/ C-601-3351	HMT-303 FREST MCAS Camp Pendleton/ 66063	Transparencies	2 Sets	Nov 88

IV.B.3. Training Aids (Instructional Aids) (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>ITEM/TITLE</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W Electrical and SCAS Organizational Maintenance/ C-602-3360	HMT-303 FREST MCAS Camp Pendleton/ 66063	Transparencies	2 Sets	Nov 88
Cadre Training for new systems as required	As Required	Transparencies	2 Sets	Start of OPEVAL Training

IV.B.4. Technical Manuals

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TECHNICAL MANUAL TITLE AND NUMBER</u>	<u>MEDIUM</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W COM/NAV/ IDENT and Related Systems Organizational Maintenance/ C-102-3354	HMT-303 MCAS Camp Pendleton/ 66063	NATOPS Flight Manual NA01-H1AAC-1	Hardcopy	8	Jan 88
		Organizational Maintenance Helicopter General Information NA01-H1AAC-2-1	Hardcopy	8	Jan 88
		Avionics Systems NA01-H1AAC-2-14 NA01-H1ACC-2-14.1, NA01-H1ACC-2-14.2 NA01-H1ACC-2-14.3	Hardcopy	8	Jan 88
AH-1W TOW/Hell- fire Control and Display Systems Organizational Maintenance/ C-198-3351	HMT-303 FREST MCAS Camp Pendleton/ 66063	General Information NA01-H1AAC-2-1	Hardcopy	8	Jan 88
		Numerical Index of Part Numbers and Numerical Index of Reference Designations NA01-H1AAC-4	Hardcopy	8	Jan 88
		Periodic Maintenance Information Cards NA01-H1AAC-6	Hardcopy	8	Jan 88
		Turnaround Checklist NA01-H1AAC-6-1	Hardcopy	8	Jan 88
		Daily, Servicing, Special, and Preservation Maintenance Requirement Cards NA01-H1AAC-6-3	Hardcopy	8	Jan 88
		Phased Maintenance Requirement Cards NA01-H1AAC-6-4	Hardcopy	8	Jan 88
		NATOPS Flight Manual NA01-H1AAC-1	Hardcopy	8	Jan 88
		Armament Systems NA01-H1AAC-2-12	Hardcopy	8	Jan 88
		Organizational Maintenance Instruction Manual, Electrical; NA01-H1AAC-2-11	Hardcopy	8	Jan 88

IV.B.4. Technical Manuals (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TECHNICAL MANUAL TITLE AND NUMBER</u>	<u>MEDIUM</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W TOW/Hell- fire Control and Display Systems Organizational Maintenance/ C-198-3351) (Continued)	HMT-303 FREST MCAS Camp Pendleton/ 66063 (Continued)	Organizational Maintenance Instruction Manual, Structural Repair NA01-H1AAC-3	Hardcopy	8	Jan 88
H-1 Airframes Integrated Organizational Maintenance/ C-600-9360	HMT-303 MCAS Camp Pendleton/ 66063	General Information NA01-H1AAC-2-1	Hardcopy	8	Oct 94
		Organizational Maintenance Airframes and Landing Gear Manual, AH-1W Aircraft NA01-H1AAC-2-2	Hardcopy	8	Oct 94
		Structural Repair Manual, AH-1W NA01-H1AAC-3	Hardcopy	8	Oct 94
		General Manual for Structural Repair NA01-1A-1	Hardcopy	8	Oct 94
		Fabrication, Maintenance and Repair of Transparent Plastics NA01-1A-12	Hardcopy	8	Oct 94
		Work Unit Code Manual, AH-1 Aircraft NA01-H1AAC-WUC-800	Hardcopy	8	Oct 94
		Numerical Index of Part Numbers and Numerical Index of Reference Designations NA01-H1AAC-4	Hardcopy	8	Oct 94

IV.B.4. Technical Manuals (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TECHNICAL MANUAL TITLE AND NUMBER</u>	<u>MEDIUM</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
H-1 Hydraulic Systems Integrated Organizational Maintenance/ C-600-9361	HMT-303 FREST MCAS Camp Pendleton/ 66063	General Information NA01-H1AAC-2-1	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Flight Control Systems, AH-1W Helicopter NA01-H1AAC-2-5	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Hydraulic Systems, AH-1W Helicopter NA01-H1AAC-2-8	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Utility System, AH-1W Helicopter NA01-H1AAC-2-9	Hardcopy	8	Oct 94
		Work Unit Code Manual, AH-1 Aircraft NA01-H1AAC-WUC-800	Hardcopy	8	Oct 94
		Aviation Hydraulics Manual NA01-1A-17	Hardcopy	8	Oct 94
AH-1W Powertrain and Related Systems Organizational Maintenance/ C-601-9351	HMT-303 FREST MCAS Camp Pendleton/ 66063	Organizational Maintenance, Helicopter General Information, AH-1W Helicopter NA01-H1AAC-2-1	Hardcopy	8	Oct 94
		NATOPS Flight Manual NA01-H1AAC-1	Hardcopy	8	Oct 94



IV.B.4. Technical Manuals (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TECHNICAL MANUAL TITLE AND NUMBER</u>	<u>MEDIUM</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W Powertrain and Related Systems Integrated Organizational Maintenance/ C-601-9351 (Continued)	HMT-303 FREST MCAS Camp Pendleton/ 66063 (Continued)	Illustrated Parts Breakdown, Numerical Index of Part Numbers and Reference Designator Index AH-1W Helicopter NA01-H1AAC-4	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Flight Control, AW-1W Helicopter NA01-H1AAC-2-5	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Maintenance Procedures, Electrical Systems, AH-1W Helicopter NA01-H1AAC-2-11.3	Hardcopy	8	Oct 94
		Work Unit Code Manual, AH-1 Aircraft NA01-H1AAC-WUC-800	Hardcopy	8	Oct 94
		Periodic Maintenance Information Cards NA01-H1AAC-6	Hardcopy	8	Oct 94
		Turnaround Checklist NA01-H1AAC-6-1	Hardcopy	8	Oct 94
		Daily, Servicing, Special, and Preservation Maintenance Requirement Cards NA01-H1AAC-6-3	Hardcopy	8	Oct 94
		Phased Maintenance Requirement Cards NA01-H1AAC-6-4	Hardcopy	8	Oct 94
		Power Plant and Related Systems Principles of Operation NA01-H1AAC-2-3.1	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Maintenance Procedures Powerplant and Related Systems AH-1W	Hardcopy	8	Oct 94

Helicopter NA01-H1AAC-2-3.3

IV.B.4. Technical Manuals (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TECHNICAL MANUAL TITLE AND NUMBER</u>	<u>MEDIUM</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W Powertrain and Related Systems Integrated Organizational Maintenance/ C-601-9351 (Continued)	HMT-303 FREST MCAS Camp Pendleton/ 66063 (Continued)	Organizational Maintenance with Illustrated Parts Breakdown, Main Rotor System, AH-1W Helicopter NA01-H1AAC-2-6	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Tail Rotor System AH-1W Helicopter NA01-H1AAC-2-7	Hardcopy	8	Oct 94
		Organizational Maintenance with Illustrated Parts Breakdown, Drive System, AH-1W Helicopter NA01-H1AAC-2-4	Hardcopy	8	Oct 94
AH-1W Electrical and SCAS Organizational Maintenance/ C-602-3360	HMT-303 FREST MCAS Camp Pendleton/ 66063	NATOPS Flight Manual NA01-H1AAC-1	Hardcopy	8	Oct 94
		General Information NA01-H1AAC-2-1	Hardcopy	8	Oct 94
		Power Plant and Related Systems Principles of Operation NA01-H1AAC-2-3.1	Hardcopy	8	Oct 94
		Organizational Maintenance Instruction Manual, with Illustrated Parts Breakdown, Flight Control Systems, AH-1W Helicopter NA01-H1AAC-2-5	Hardcopy	8	Oct 94
		Organizational Maintenance Instruction Manual, with Illustrated Parts Breakdown, Hydraulic Systems, AH-1W Helicopter NA01-H1AAC-2-8	Hardcopy	8	Oct 94
		Organizational Maintenance Instruction Manual, with Illustrated Parts Breakdown, Utility Systems, AH-1W Helicopter	Hardcopy	8	Oct 94

NA01-H1AAC-2-9

IV.B.4. Technical Manuals (Continued)

<u>COURSE/ TYPE OF TRAINING</u>	<u>TRAINING ACTIVITY/ LOCATION/UIC</u>	<u>TECHNICAL MANUAL TITLE AND NUMBER</u>	<u>MEDIUM</u>	<u>QUANTITY REQUIRED</u>	<u>DATE REQUIRED</u>
AH-1W Electrical and SCAS Integrated Organizational Maintenance/ C-602-9360 (Continued)	HMT-303 FREST/ MCAS Camp Pendleton/ 66063 (Continued)	Organizational Maintenance Instruction Manual Instrument Systems,  NA01-H1AAC-2-10.1, NA01-H1AAC-2-10.2 and NA01-H1AAC-2-10.3	Hardcopy	8	Oct 94
		Organizational Maintenance Instruction Manual Electrical Systems, NA01-H1AAC-2-11.1, NA01-H1AAC-2-11.2 and NA01-H1AAC-2-11.3	Hardcopy	8	Oct 94
		Organizational Maintenance Instruction Manual, with Illustrated Parts Breakdown, Stabilization Control Augmentation System, AH-1W Helicopter NA01-H1AAC-2-13	Hardcopy	8	Oct 94
		Work Unit Code Manual, AH-1 Aircraft NA01-H1AAC-WUC-800	Hardcopy	8	Oct 94
		Intermediate Maintenance Instruction Manual, with Illustrated Parts Breakdown, Sensor Amplifier Unit Part Number 209-074-0801 NA03-75A-10	Hardcopy	8	Oct 94

PART V - MAJOR MILESTONES

<u>COG CODE</u>	<u>MANNING AND TRAINING MILESTONES</u>	<u>DATE</u>	<u>REMARKS</u>
PDA	Production Contract Awarded	Apr 84	
TSA	Commence Initial Training	Feb 85	
TSA	Factory Training and Curriculum Material Contract Awarded	Mar 85	
OPTEVFOR	Commence OPEVAL	Nov 85	
TSA	Curricula Materials Delivered	Nov 85	
ACNO (MPT)	Approve and Promulgate NTP	Apr 86	
PDA	Fleet Introduction	Jun 86	
TSA	Commence Training Advisory Services	Oct 86	
PDA	ILS Master Plan Promulgated	May 87	
TSA	Technical Training Equipment Delivered	Oct 88	
TSA	Navy Technical Training Equipment Installed	Oct 88	
TA	Commence Follow-on/Replacement Training	Apr 89	
ACNO (MPT)	Promulgate OPNAV Form 1000/2	Feb 91	
PDA	Promulgate Draft NTP to ALCON for Review and Comment	Dec 91	
PDA	Proposed NTP Submitted to OPNAV	Aug 92	
ACNO (MPT)	Promulgate Update NTP	Oct 92	
TSA	Commence Initial Fleet NTS Training	Jun 93	
TSA	CMT #1 Upgraded to NTS/CCM Complete	Sep 94	
TSA	CMT #2 Scheduled for NTS/CCM Upgrade	FY-97	
TSA	WST #1 NTS/CCM Upgrade complete	FY-98	
TSA	WST #2 NTS/CCM Upgrade complete	FY-97	
TSA	APT No.1 "2F170" NTS/CCM Upgrade	FY-96	
TSA	ECP-1686 (ARC-210/EGI/ARN-153) Fleet Introduction	FY-96	
TSA	ECP-1686 Trainer Upgrades	FY-96	

PART VI - ACTIONS AND/OR DECISIONS

VI.A. ACTION ITEMS

<u>ACTION ITEM</u>	<u>ACTION REQUIRED</u>	<u>COMMAND ACTION</u>	<u>DUE DATE</u>	<u>STATUS</u>
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VI.B. DECISIONS

<u>DECISION ITEM</u>	<u>DECISIONS</u>
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PART VII - POINTS OF CONTACT

<u>NAME</u>	<u>CODE</u>	<u>FUNCTION</u>	<u>LOCATION</u>	<u>TELEPHONE NUMBER (DSN/COMMERCIAL)</u>
MAJ Brad Lineberg	N880F4	Requirements Officer/Program Sponsor	CNO	225/(703) 695-5418
CAPT P. Laszcz	N881C	Head, Plans, Policy, and Fleet Maintenance Support	CNO	664/(703) 604-7747
CAPT F. Smith	N889H	Head, Aviation Technical Training	CNO	664/(703) 604-7730
MSGT D. Anderson	N889H2	Aviation Technical Training	CNO	664/(703) 604-7722
MAJ T. Metler	TE3241	Aviation Program Manager	MCCDC	278/(703) 640-370
Col K. W. Hill	ASM-1	Branch Head for Aviation Manpower	HQMC	224/(703) 614-1392
LCDR E. Hawkins	N721	Aviation NTSP Manager	CINCLANTFLT	(757) 332-0101 DSN 565-7853
LT Price	N-343	Fleet Training & Readiness Officer	CINCPACFLT	474/(808) 474-6965 FAX (808) 471-8601
Capt Curtis	PMA276	Program Manager	NAVAIRSYSCOM	757/(301) 7575534
Mr. M. Denny	PMA276A	Deputy Program Manager	NAVAIRSYSCOM	757/(301) 757-5492
Maj D. A. Smith	PMA276H	Deputy for H-1 Aircraft	NAVAIRSYSCOM	757/(301) 757-5491
Mr. W. Walker	PMA205-2C	Training System Program Manager	NAVAIRSYSCOM	757/(301) 757-8090
Maj D. Smith	AIR 4.1.1.2	Assistant Program Manager for Systems and Engineering for H-1	NAVAIRSYSCOM	757/(301) 757-5522



PART VII - POINTS OF CONTACT (Continued)

<u>NAME</u>	<u>CODE</u>	<u>FUNCTION</u>	<u>LOCATION</u>	<u>TELEPHONE NUMBER (DSN/COMMERCIAL)</u>
Ms. K. Lewis	AIR 3.1.2E	APML AH-1W	NAVAIRSYSCOM	757/(301) 757-5519
CAPT P. Pratt	T2524	Training Coordinator	CNET	922/(904) 452-4883
Mr. E. Scheye	T252	Aviation NTSP Manager	CNET	(904) 452-4853
MSGT P. Cotton	N2125	Training Technical Coordinator	NAMTG HQ	(850) 452-5136 DSN 922-9742 ext. 231
Mr. P. Szczyglowski	3.4.1	Competency Manager	NAVAIRSYSCOM	757/ (301) 757-9182
AVCM R. Lovern	3.4.1	NTSP Manager	NAVAIRSYSCOM	757/ (301) 757-9183
ATCS D. Butler	3.4.1	NTSP Coordinator	NAVAIRSYSCOM	757/ (301) 757-9188
Mr. Al Sargent	320C	NTSP Coordinator NAVMAC, 32	NAVMAC	(901) 873-5993 DSN 966-8914
LtCol Will Cutt	56	Commander,Operational Test Evaluation Force		(757) 444-5085 DSN 564-5546