

**INITIAL**  
**NAVY TRAINING SYSTEM PLAN**  
**FOR THE**  
**CH-60 FLEET COMBAT SUPPORT HELICOPTER**  
**MAY 1998**

**Enclosure (1)**

# **CH-60 FLEET COMBAT SUPPORT HELICOPTER**

## **EXECUTIVE SUMMARY**

This Initial Navy Training System Plan for the CH-60 Fleet Combat Support Helicopter was developed by the Naval Air Systems Command (AIR-3.4.1) using the Training Planning Process Methodology. This document provides an early estimate of manpower, personnel, and training requirements to support the employment concepts currently being considered for the CH-60. It also contains appropriate data required to make accurate decisions and assessments concerning manpower and training alternatives for the CH-60.

The CH-60 program is currently in Phase I (Program Definition and Risk Reduction) of the Weapon System Acquisition Process. The Acquisition Category assigned is ACAT ID. Initial Operational Capability is to occur no later than FY02 when the first CH-60 helicopter is deployed with personnel having completed required operator and maintenance training.

The CH-60 will be a single main rotor helicopter derived from the U.S. Navy's SH-60 Seahawk series helicopter and the U.S. Army's UH-60 Blackhawk series helicopter. It will replace the H-46 helicopter, which provides the Navy's Combat Logistics Force with an at-sea VERTREP capability and serves as the primary Search and Rescue (SAR) aircraft for the Amphibious Task Force. The CH-60 will also replace the H-1 and H-3 helicopters that are used for Naval Air Station SAR, Range Support, and Executive Transport missions. Finally, the CH-60 will replace the HH-60H helicopter that provides (active duty) Helicopter Antisubmarine (HS) squadrons and Reserve Helicopter Combat Support (Special) (HCS) squadrons with combat search and rescue and special warfare support capabilities.

The CH-60 training program will consist of initial and follow-on training for operators and maintenance personnel. Initial operator and maintenance training will be provided by the contractor for Navy Test and Evaluation personnel in support of Developmental Test and Operational Test, Fleet Readiness Squadron instructors, Naval Aviation Maintenance Training Group instructors, and an initial cadre of Fleet personnel. The majority of the CH-60 follow-on (i.e., replacement) training will be provided through existing courses that have been modified to include CH-60 data. New courses will be required for CH-60 aircrew (both officer and enlisted) and organizational level Aviation Electronics Technicians.

Introducing the CH-60 into existing Helicopter Combat Support Squadron (HC), HCS, HS, and SAR Det/Range Support activities is expected to reduce existing manpower levels. The majority of these reductions will be in the SAR Det/Range Support activities and are due to a decrease in the number of Primary Authorized Aircraft. HC squadron manpower levels may also be reduced due to a restructuring and subsequent reduction of detachment manpower requirements.

# CH-60 FLEET COMBAT SUPPORT HELICOPTER

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## CH-60 FLEET COMBAT SUPPORT HELICOPTER

### LIST OF ACRONYMS

AD	Aviation Machinist's Mate
AE	Aviation Electrician's Mate
AFCS	Automatic Flight Control System
AIMD	Aircraft Intermediate Maintenance Department
AMH	Aviation Structural Mechanic (Hydraulics)
AMIST	Aviation Maintenance In-Service Training
AMS	Aviation Structural Mechanic (Structures)
AMTCS	Aviation Maintenance Training Continuum System
AO	Aviation Ordnanceman
APU	Auxiliary Power Unit
AT	Aviation Electronics Technician
ATF	Amphibious Task Force
CASS	Consolidated Automated Support System
CBT	Computer-Based Training
CLF	Combat Logistics Force
CM	Corrective Maintenance
CMT	Composite Maintenance Trainer
COMNAVAIRPAC	Commander Naval Air Force, U.S. Pacific Fleet
CSAR	Combat Search and Rescue
DoD	Department of Defense
DT	Developmental Testing
ECS	Environmental Control System
FH/M/AC	Flight Hours per Month per Aircraft
FIT	Fleet Introduction Team
FLIR	Forward Looking Infrared
FMS	Foreign Military Sales
FRS	Fleet Readiness Squadron
FY	Fiscal Year
GRL	Gross Requirements List
HC	Helicopter Combat Support Squadron
HCS	Helicopter Combat Support Squadron (Special)
HS	Helicopter Antisubmarine Squadron
HSI	Human Systems Integration
HSL	Helicopter Antisubmarine Squadron Light
IETM	Integrated Electronic Technical Manual

## CH-60 FLEET COMBAT SUPPORT HELICOPTER

### LIST OF ACRONYMS

IMC	Integrated Maintenance Concept
ISST	In-Service Support Team
MMH/FH	Maintenance Man-Hours per Flight Hour
MTU	Maintenance Training Unit
NAMTG	Naval Aviation Maintenance Training Group
NAS	Naval Air Station
NATOPS	Naval Air Training and Operating Procedures Standardization
NAVAIRSYSCOM	Naval Air Systems Command
NAVAVNDEPOT	Naval Aviation Depot
NAVICP	Naval Inventory Control Point
NEC	Navy Enlisted Classification
NOBC	Navy Officer Billet Classification
NS	Naval Station
NTSP	Navy Training System Plan
NVD	Night Vision Devices
OT	Operational Testing
PEDD	Portable Electronic Display Device
POE	Projected Operating Environment
PQS	Personnel Qualifications Standards
PSE	Peculiar Support Equipment
RAST	Recovery, Assist, Secure, and Traverse
RCM	Reliability Centered Maintenance
RFT	Ready For Training
ROC	Required Operational Capabilities
SAR	Search and Rescue
SDLM	Standard Depot Level Maintenance
SRA	Shop Replaceable Assembly
SWS	Special Warfare Support
TBD	To Be Determined
TD	Training Device
T/M/S	Type/Model/Series
T/OFT	Tactical/Operational Flight Trainer
TTE	Technical Training Equipment

# **CH-60 FLEET COMBAT SUPPORT HELICOPTER**

## **LIST OF ACRONYMS**

WRA	Weapon Replaceable Assembly
WST	Weapon System Trainer
VERTREP	Vertical Replenishment

# **CH-60 FLEET COMBAT SUPPORT HELICOPTER**

## **PREFACE**

This is the first iteration of the Initial Navy Training System Plan (NTSP) for the CH-60 Fleet Combat Support Helicopter. It is the first version of the CH-60 NTSP and is designed to explore the various employment alternatives currently under consideration for the CH-60. Since it is the first NTSP and still relatively early in the acquisition process, some definitive data was unavailable and therefore not included in this version.

This Initial NTSP is a product of the Training Planning Process Methodology, which is the Navy's replacement for the Hardware/Manpower (HARDMAN) Integration Program Methodology. As such, the format of this document is somewhat different from its predecessor, the HARDMAN Concept Document. However, their purposes are identical.

**PART I - TECHNICAL PROGRAM DATA**

**A. TITLE-NOMENCLATURE-PROGRAM**

- 1. **Title-Nomenclature-Acronym.** CH-60 Fleet Combat Support Helicopter
- 2. **Program Element.** 0604212N

**B. SECURITY CLASSIFICATION**

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

**C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS**

- OPNAV Principal Official (OPO) Program Sponsor ..... CNO (N880H)
- OPO Resource Sponsor ..... CNO (N880E3)
- Developing Agency ..... NAVAIRSYSCOM (PMA299)
- Training Agency ..... CINCLANTFLT (N721)  
CINCPACFLT (N343)  
CNET (ETE322)
- Training Support Agency ..... NAVAIRSYSCOM (PMA205)
- Manpower and Personnel Mission Sponsor ..... CNO (N12)  
BUPERS (PERS-4, PERS 404)
- Director of Naval Training ..... CNO (N7)
- Commander, Reserve Program Manager ..... COMNAVAIRESFOR

**D. SYSTEM DESCRIPTION**

1. **Operational Uses.** The current Fleet Combat Support Helicopter provides the Navy's Combat Logistics Force (CLF) with an at-sea Vertical Replenishment (VERTREP) capability. It also serves as the primary Search and Rescue (SAR) helicopter for the Amphibious Task Force (ATF), providing essential support to amphibious operations. The primary missions of the CH-60 will include day and night VERTREP, day and night amphibious SAR, vertical onboard delivery,

and airhead operations. Secondary missions of the CH-60 will include Combat Search and Rescue (CSAR), Special Warfare Support (SWS), recovery of torpedoes, drones, unmanned aerial vehicles, and unmanned undersea vehicles, noncombatant evacuation operations, aeromedical evacuations, humanitarian assistance, executive transport, and disaster relief.

The CSAR/SWS version of the CH-60 will have additional mission equipment installed that will provide the Navy with capabilities for CSAR and SWS in both the active carrier-based Helicopter Antisubmarine Squadrons (HS) and in the Reserve Helicopter Combat Support (Special) (HCS) Squadrons.

**2. Foreign Military Sales.** There are currently no plans for Foreign Military Sales (FMS) of the CH-60 helicopter.

**E. DEVELOPMENTAL TEST AND OPERATIONAL TEST.** The CH-60 Integrated Test Team, composed of Contractor and U.S. Navy Test and Evaluation personnel, completed a successful Developmental and Operational Assessment (IT-II/OT-IIA) of a prototype CH-60 during first quarter Fiscal Year (FY) 98.

Developmental Testing (DT) and Operational Testing (OT) of production representative CH-60s is scheduled to begin fourth quarter FY99, by the Naval Rotary Wing Aircraft Test Squadron onboard Naval Air Station (NAS) Patuxent River, Maryland.

**F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED.** Based on the current deployment schedule, the CH-60 will first replace the H-46D helicopters in active Navy Helicopter Combat Support (HC) Squadrons. After the H-46s have been replaced, the CH-60 will replace the HH-60H helicopters in the Reserve HCS squadrons, then the UH-3H and HH-1H helicopters used as Naval Air Station SAR, range support, and executive transport missions. Finally, the CH-60 will replace the HH-60H helicopters in active Navy HS squadrons.

## **G. DESCRIPTION OF NEW DEVELOPMENT**

**1. Functional Description.** The CH-60 will be a Class 1B, single main rotor, twin-engine helicopter manufactured by Sikorsky Aircraft Corporation. It will be configured with a 20-degree tractor type canted tail rotor, a controllable stabilator, a conventional fixed landing gear, an external cargo hook, and a rescue hoist.

The CH-60 will be able to operate day or night, under adverse weather conditions, including flight in light icing. The helicopter will be compatible with all current and future Aircraft Carriers, CLF, and ATF ships to include fitting inside the hangars of all CLF ships without ship alteration. The helicopter will be capable of operating over all designated ship hover areas, both day and night, and be compatible for limited operation aboard both aviation and air capable ships proportionate with a fixed fore-to-aft wheelbase of 29 feet.

**a. Avionics Systems Configuration.** The CH-60 avionics system will represent a modern integration of avionics sensors and subsystems with a central Communications System Controller and a dual-redundant MIL-STD-1553B multiplex data bus. The CH-60 helicopter will incorporate the Navy H-60's Automatic Flight Control System (AFCS) which provides fully coupled approaches, hover, and departure, and precise navigation and night, over-water hover capabilities. The CH-60 helicopter will utilize the latest Advanced Flight Control Computer currently being procured through a Navy-led Engineering Change Proposal.

**b. Communications.** The communications system will consist of dual Ultra-High Frequency/Very High Frequency radio transmitters-receivers capable of plain and secure transmission, Identification, Friend, or Foe, and the provisions for Satellite Communications with Demand Assigned Multiple Access capability.

**c. Navigation.** The CH-60 navigation equipment will consist of the Global Positioning System, Doppler Radar, Multi-functional Displays, Inertial Navigation System, Downed Aviators Locating System, and Ground Proximity Warning System. The navigation hardware will consist of two Attitude Heading Reference Systems, two Air Data Transducers, two Attitude Indicators, two Horizontal Situation Video Displays, Tactical Air Navigation, Direction Finding Antenna and Radar Altimeters.

**d. Night Vision Devices.** The CH-60 cockpit will be compatible with Night Vision Devices (NVD) and will include a NVD Head-Up Display. Exterior aircraft lighting, including position lights and electroluminescent formation lights, will be NVD compatible. The searchlight will be suitable for non-NVD and NVD flight operations.

**e. Forward Looking Infrared.** The Forward Looking Infrared (FLIR) will maintain commonality with the FLIR currently in use on other Navy H-60 helicopters and possess a laser range designator with automatic tracking and bore-sight capability. The FLIR will have three fields of view.

**f. Weapons.** The CSAR/SWS version of the CH-60 will have a forward firing area suppression weapon (e.g. gun or rocket system) and a precision guided air-to-ground missile system. The CSAR/SWS version will also be equipped with crew served side suppression weapons.

**g. Survivability.** The CH-60 will have ballistically tolerant fuel systems and dynamic components, an engine infrared suppressor system, and wire strike protection to enhance crew survivability. The CH-60 will also have provisions for a laser detection system, a plume detection system, a radar warning receiver, an infrared jamming system, and chaff and flare dispensers.

**h. Airframe.** The airframe will consist of a cockpit (that is common with the SH-60R helicopter), cabin, main rotor pylon, transition section, tailcone, fixed landing gear, controllable stabilator, tail pylon, and external cargo hook. The airframe will be designed to stringent flight maneuver, landing, and crash requirements. Doors will be provided on both sides

of the cockpit for normal entrance and exit of the pilot and co-pilot. A jettisonable window in each door will provide an emergency exit. Dual sliding cabin doors will provide normal access for personnel and cargo to the cabin area. In addition, left hand and right hand gunner's windows will be included.

**i. Internal Cargo.** The CH-60 will have an internal cargo roller and guide system for handling and securing 40" x 48" palletized internal cargo.

**j. Power Plant System.** The power plant installation will consist of two Marinized T700-GE-401C front drive turboshaft engines built of modular construction. Each demountable power package will provide the drive power for main and tail rotor operation and aircraft accessories. The standard engine exhaust ducts will be replaced by a helicopter infrared suppressor system.

**k. Auxiliary Power Unit System.** The Auxiliary Power Unit (APU) will consist of either a T-62T-40-1 or GTCP-36-150 turboshaft engine that provides pneumatic power for starting the main engines and operating the Environmental Control System (ECS) on the ground.

**l. Drive System.** The drive system will consist of a main, intermediate, and tail gearbox with interconnecting shafts. A rotor brake will be provided for stopping and holding the main rotor and locking the rotor system for automatic blade fold operation.

**m. Main and Tail Rotor System.** The main rotor will consist of four fully articulated titanium and fiberglass composite blades. The tail rotor will consist of a four-bladed bearingless cross-beam rotor. The main rotor blades and tail pylon will be capable of being folded for storage.

**n. Electrical System.** The electrical system will be powered by two independent drive generators. A third APU-driven generator will provide emergency electrical power and power for ground maintenance and pre-flight checks.

**o. Hydraulic System.** Three separate and independent hydraulic power sources, operating into dual isolated distribution systems, will provide redundant power for primary flight controls and mission equipment.

**p. Environmental Control System.** The ECS, which consists of an air-cycle control unit and the necessary controls and valves, will provide environmental control for selected sections of the aircraft.

**q. Rescue Hoist System.** A hydraulically powered rescue hoist system will be installed and will be capable of raising and lowering a 600 pound load.

**r. Anti-Ice Systems.** Separate windshield, rotor blade, engine, and engine inlet anti-ice systems will be installed. These will be designed to keep ice from forming on critical surfaces of the aircraft.

s. **Fire Detection and Extinguishing Systems.** A fire detection and fire extinguishing system will be installed for each engine and the APU.

**2. Physical Description.** The CH-60 will be an Army UH-60 Blackhawk utility airframe in combination with Navy SH/HH-60 transmissions and dynamic components. The CH-60 will incorporate new design items that are not in use by either the UH-60 or SH/HH-60 airframe lines. The CH-60 will adapt the Naval H-60 Tail Pylon to the Blackhawk tail cone with a CH-60 unique canted bulkhead at the tail cone, tail pylon interface. This bulkhead will “marry” the two components by providing a Naval H-60 interface on its aft face to accommodate the Naval H-60’s fold hinges and quick disconnect mechanism; and a UH-60 interface on its forward face to accommodate the UH-60’s tail landing gear and tail cone interface. The Blackhawk’s tail cone flight controls will be rerouted to accommodate the Naval H-60 rapid fold tail pylon.

A breakdown of various CH-60 aircraft components and their source (either UH-60 or SH/HH-60) is listed below in Table 1. These components are all currently in use by the Navy, Army, and Air Force and are supported by existing fielded Navy, Army, and Air Force infrastructure.

<b>TABLE 1 - CH-60 DESIGN HERITAGE</b>			
<b>COMPONENT</b>	<b>AIR FORCE UH-60L</b>	<b>ARMY UH-60L</b>	<b>NAVY SH/HH-60</b>
Airframe		X	
Landing Gear		X	
Fuel Cells		X	
Hover Infrared Suppressor		X	X
200 V/M Electromagnetic Interference		X	X
Marinized Materials		X	X
Automatic Main Rotor Fold			X
Transmission/Drivetrain			X
T-700-GE-401 ( C ) Engines			X
Flight Controls			X
Rotor Brake			X
AFCS			X
Rapid Folding Tail			X
Folding Stabilator	X		X

<b>TABLE 1 - CH-60 DESIGN HERITAGE</b>			
<b>COMPONENT</b>	<b>AIR FORCE UH-60L</b>	<b>ARMY UH-60L</b>	<b>NAVY SH/HH-60</b>
Rescue Hoist	X		X
Helicopter In-Flight Refuel (HIFR)			X
Fuel Dump	X		X
Wires Strike		X	X
Windshield Washer			X
Cockpit Doors			X

Table 2 below contains the principal CH-60 aircraft dimensions.

<b>TABLE 2 - CH-60 DIMENSIONS</b>	
<b>COMPONENT</b>	<b>DIMENSION</b>
Main Rotor	53' 8" diameter (four blades)
Tail Rotor	11' diameter (four blades)
Aircraft:	
Operating Length/Folded Length	64' 10" / 40' 11"
Operating Height/Folded Height	17' / 13' 3"
Fuselage Length/Width	50' 0.75" / 8' 10"
Weight:	
Empty	12,580 lb.
Maximum Gross	21,844 lb.
Internal Payload	4,100 lb.
External Payload	9,000 lb.

**3. New Development Introduction.** The CH-60 helicopter will be introduced to the Navy as a new production aircraft.

**4. Significant Interfaces.** The CH-60 cockpit and communication and navigation equipment package will be common with the U.S. Navy SH-60R helicopter. The two platforms will share existing support infrastructure (e.g., technical publications, support equipment, training

pipelines, training devices, spares) to the maximum extent possible to avoid further requirements for support infrastructure.

## **5. New Features, Configurations, or Material.** NA.

## **H. CONCEPTS**

**1. Operational Concept.** The CH-60 will be operated by a standard crew of four composed of one Pilot, one Co-Pilot, and two Enlisted Aircrewmembers (the number of aircrewmembers will vary with type of mission). The aircraft will operate in a variety of mission areas that are consistent with operational uses stated in Paragraph D.1., and as outlined in the applicable Required Operational Capabilities and Projected Operating Environment (ROC/POE) document.

**2. Maintenance Concept.** The maintenance concept for the CH-60 is based on the three levels of maintenance per OPNAVINST 4790.2G (Naval Aviation Maintenance Program) manual.

**a. Organizational.** Organizational level maintenance functions will consist of those maintenance actions normally performed by an operating activity in support of its day-to-day operations.

**(1) Preventive Maintenance.** Preventive Maintenance (PM) consists of scheduled inspections and servicing requirements as prescribed by the applicable Maintenance Requirements Cards. The frequency and duration of preventive maintenance actions will be similar to the existing Navy H-60 150-hour A, B, C, and D series phased inspections, as well as the daily, turnaround, conditional, and special inspection requirements. The CH-60 maintenance program will incorporate and maintain a Reliability Centered Maintenance (RCM) program.

**(2) Corrective Maintenance.** Corrective Maintenance (CM) will consist of fault isolation to a defective Weapon Replaceable Assembly (WRA) or Shop Replaceable Assembly (SRA), removal and replacement of defective WRAs or SRAs, and verification of the repair using Built-In Test, the appropriate test sets, or Common Support Equipment (CSE). WRAs and SRAs requiring repair beyond the capability of the organizational level will be forwarded to the appropriate Intermediate Maintenance Activity. The CH-60 will have the capability to support an Integrated Mechanical Diagnostics System.

**b. Intermediate.** Intermediate level maintenance is performed on those WRAs and SRAs beyond the organizational maintenance level capability. Intermediate level maintenance consists of fault isolating defective WRAs and SRAs by using CSE and Peculiar Support Equipment (PSE), replacing faulty SRAs and components, and verifying corrective action via the appropriate CSE and PSE. Full intermediate level maintenance capability will be provided at aircraft carrier-based Aircraft Intermediate Maintenance Departments (AIMD) as well as the following shored-based AIMDs: North Island, Norfolk, and Jacksonville.

An organizational-to-depot or organizational-to-original equipment manufacturer maintenance concept and/or a streamlined AIMD for fault verification may be implemented for

select CH-60 equipment. A level of repair analysis will be performed by the contractor on select new SRAs to determine where each SRA should be repaired.

**c. Depot.** Depot level maintenance consists of major overhaul of the aircraft or the rebuilding, manufacture, and modification of parts, assemblies, and subassemblies beyond the capabilities of the Intermediate Maintenance Activity. Depot level maintenance of the CH-60 will be performed at Corpus Christi Army Depot, Corpus Christi, Texas. The In-Service Support Team (ISST) for the CH-60 will be located at Naval Aviation Depot (NAVAVNDEPOT) Cherry Point, North Carolina.

The H-60 ISST at the NAVAVNDEPOT Cherry Point is leading an effort to change the current maintenance concept for the H-60 helicopter. This concept is the H-60 Integrated Maintenance Concept (IMC), an RCM-based approach to maintaining aircraft. This effort will repackage all H-60 maintenance tasks to combine organizational, intermediate, and depot level maintenance efforts to be performed on-site between deployments. Depot artisans would be permanently assigned to H-60 home sites and over a specified period of time, would perform Standard Depot Level Maintenance (SDLM)-like tasks on the aircraft, but with much more frequency than the current 8-11 years SDLM cycle. Organizational level would still have at-sea requirements, but the bulk of inspections and preventive maintenance tasks would be performed in-port by integrated organizational level, intermediate level, and depot level teams between deployments.

The H-60 IMC program baselined eight aircraft in first quarter FY98. If the baselines are successful, the H-60 aircraft will transition from its current A, B, C, and D phased maintenance inspections coupled with Aircraft Service Period Adjustment and SDLM, to Baselining and IMC starting in second quarter FY99, with full transition to IMC to be completed by the end of FY03.

**d. Interim Maintenance.** Repair and maintenance of the CH-60 weapon system and Support Equipment (SE) during the interim support phase will be a joint contractor and Navy responsibility. The Navy will repair all material for which organic support exists and Sikorsky Aircraft Corporation will provide back-up repair capability if needed. Contractor Engineering Technical Services will be employed during the interim support phase. This is particularly important at NAS Norfolk since the number of H-60 helicopters currently there are limited. The Navy Support Date has not yet been determined.

**e. Life Cycle Maintenance Plan.** As of this writing, the CH-60 Life Cycle Maintenance Plan is still under development. When completed, it will be added to future updates to this document.

**3. Manning Concept.** Based on a cursory analysis of the operator and maintainer tasks expected to be associated with the CH-60 and its equipment, these tasks have been determined to be within the capabilities of the Navy's existing enlisted rating and officer Navy Officer Billet Classification (NOBC) structures. As a result, it is estimated that no new enlisted ratings or officer NOBCs will be required to support the CH-60. As such, the operator and maintainer

manpower for the CH-60 will come from existing NAS, Navy HC, HCS, and HS squadron manpower.

**a. Estimated Maintenance Man-Hour per Flight Hour.** Because of the lack of failure rate data for the equipment and systems that will be installed in the CH-60 helicopter, the Maintenance Man-Hour Per Flight Hour (MMH/FH) for the HH-60H aircraft was used to estimate the CH-60 manpower requirements. Table 3 below is a comparison of the MMH/FH by work center for the existing H-1, H-3, and H-46 helicopters as compared to the estimated MMH/FH of the CH-60 helicopter.

<b>TABLE 3 - ESTIMATED MAINTENANCE MAN-HOUR PER FLIGHT HOUR BY WORK CENTER</b>				
	<b>AIRCRAFT</b>			
<b>WORK CENTER</b>	<b>HH-1N</b>	<b>UH-3H</b>	<b>H-46D</b>	<b>CH-60</b>
110	1.1	3.0	5.4	4.6
120	1.5	5.4	7.6	5.0
130	.09	0.2	0.5	0.1
210	0.4	1.6	0.9	1.7
220	0.4	1.8	2.7	2.0
230	0.3	0.2	0.1	0.8
310	3.0	7.7	4.0	5.5
<b>TOTAL</b>	7.6	19.9	21.2	19.7

**Note:** The above MMH/FH figures were computed by the Naval Air Systems Command (NAVAIRSYSCOM) utilizing CM and CM model data from the Navy Manpower Analysis Center.

**b. Proposed Utilization.** For planning purposes, CH-60 helicopters will sustain the following flight hour rates:

- Peacetime not deployed..... 30 Flight Hours per Month per Aircraft (FH/M/AC)
- Peacetime deployed..... 60 FH/M/AC
- Wartime deployed ..... 120 FH/M/AC \*

\* At-sea, with Full Mission Capability and deployed mission capability rates consistent with or better than existing Navy H-60 series helicopters.

Station SAR CH-60s and reserve units will fly 30 hours per aircraft per month.

**c. Recommended Qualitative and Quantitative Manpower Requirements**

**(1) Qualitative Manpower Requirements.** Introduction of the CH-60 into existing HC, HCS, HS, and SAR Det/Range Support activities will generate the need for new aircrew and enlisted Aviation Electronics Technician (AT) Navy Enlisted Classifications (NEC) codes. Since the CH-60 fleet introduction spans approximately 10 years, there will be a continual mix of legacy and CH-60 aircraft in fleet squadrons virtually the entire introduction time-frame. As a result, these new NECs will be required to ensure the required unique training can be obtained and to identify the type training an individual has obtained to eliminate redundant and over-training scenarios.

Existing HC squadrons currently have H-46 helicopters assigned to them. The CH-60 program will replace these helicopters with CH-60s. Because of the major systems differences in these aircraft and to separate and identify the type training an individual has obtained, a new NEC (hereafter referred to as 82XX) will be required to identify CH-60 VERTREP Aircrewmembers.

Because of the differences in the avionics suites of the SH-60B, SH-60F, and HH-60H, there are currently two types (qualities) of H-60 ATs, one type for SH-60B aircraft (NEC 8376/8876) and one type for SH-60F/HH-60H aircraft (NEC 8378/8878). As a result of the even greater differences in the avionics suite of the CH-60 and to separate and identify the type training an individual has obtained, two new NECs (hereafter referred to as 83XX/88XX) will be required to identify CH-60 Electronics Systems Organizational Maintenance Technicians (Initial/Career). The other enlisted ratings (i.e., AE, AMH, AMS, AD, and AO) will not require new NECs since their associated systems are very similar to the legacy H-60 helicopters. As a result, once trained, they will be awarded the existing NEC of 8878 (Initial) and 8378 (Career). Intermediate level H-60 NECs will remain unchanged. Tables 4 and 5 below display the current H-60 maintenance NEC structure along with the proposed CH-60 maintenance NEC structure.

<b>TABLE 4 - CURRENT H-60 T/M/S MAINTENANCE NECs</b>					
<b>SH-60B</b>			<b>SH-60F/HH-60H</b>		
<b>RATE</b>	<b>NEC</b>		<b>RATE</b>	<b>NEC</b>	
	<b>E-5 and above (Career)</b>	<b>E-4 and below (Initial)</b>		<b>E-5 and above (Career)</b>	<b>E-4 and below (Initial)</b>
AT	8376	8876	AT	8378	8878
AD	8378	8878	AD	8378	8878
AE	8378	8878	AE	8378	8878
AMS	8378	8878	AMS	8378	8878
AMH	8378	8878	AMH	8378	8878
AO	8378	NA	AO	8378	NA

<b>TABLE 5 - PROPOSED CH-60 MAINTENANCE NECS</b>		
<b>RATE</b>	<b>NEC</b>	
	<b>E-5 and above (Career)</b>	<b>E-4 and below (Initial)</b>
AT	83XX	88XX
AD	8378	8878
AE	8378	8878
AMS	8378	8878
AMH	8378	8878
AO	8378	8878

**(2) Quantitative Manpower Requirements.** Introduction of the CH-60 into existing HC, HCS, HS, and SAR Det/Range Support activities is expected to reduce existing manpower levels. The majority of these reductions will be in the SAR Det/Range Support activities. The reductions in these activities are a result of decreasing the number of Primary Authorized Aircraft to two.

HC activity manpower levels can potentially be reduced as a result of the CH-60 introduction. These reductions would be a result of restructuring the detachment manpower requirements. This restructuring would reduce a typical HC detachment from 36 to 29. The analysis for this restructuring has been accomplished and is displayed in Table 6 with a typical existing HC detachment. However, the restructured detachment manpower requirements are currently pending approval and subsequent inclusion into the CH-60 ROC/POE.

<b>TABLE 6 - HC DETACHMENT SUMMARY</b>		
	<b>TWO AIRCRAFT H-46 DETACHMENT</b>	<b>TWO AIRCRAFT CH-60 DETACHMENT</b>
Pilot	8	6
Ground Officer	1	0
<b>Sub-Total</b>	9	6
CPO	1	1
AZ	1	1
QA	1	1
AK	1	0
AD	4	3

<b>TABLE 6 - HC DETACHMENT SUMMARY</b>		
	<b>TWO AIRCRAFT H-46 DETACHMENT</b>	<b>TWO AIRCRAFT CH-60 DETACHMENT</b>
AM	5	4
PR	1	1
AT	1	2
AE	2	2
PC	2	2
AO	0	0
<b>Sub-Total</b>	19	17
Aircrew	8	6
<b>Total</b>	36	29

The manpower levels of existing HS and HCS activities will not be impacted by the introduction of the CH-60. Both these types of squadrons will receive one CH-60 for every HH-60H that is currently assigned. Since the HH-60H aircraft workload is considered to be representative of the CH-60 workload, the manpower levels of these activities is not expected to change.

Table 7 below displays the community-wide manpower impact by activity of the CH-60.

<b>TABLE 7 - CH-60 MANPOWER SUMMARY</b>				
<b>ACTIVITY</b>	<b>EXISTING</b>		<b>PROPOSED</b>	
	<b>OFFICER</b>	<b>ENLISTED</b>	<b>OFFICER</b>	<b>ENLISTED</b>
HC-3 (FRS)	39	276	38	265
HC-5	114	398	93	370
HC-6	68	252	50	226
HC-8	68	260	50	233
HC-11	87	301	60	266
COMHELTACWINGLANT	12	24	12	24
COMHELTACWINGPAC	11	25	11	25
<b>Sub-Total</b>	399	1536	314	1409

<b>TABLE 7 - CH-60 MANPOWER SUMMARY</b>				
<b>ACTIVITY</b>	<b>EXISTING</b>		<b>PROPOSED</b>	
	<b>OFFICER</b>	<b>ENLISTED</b>	<b>OFFICER</b>	<b>ENLISTED</b>
HC-2	73	338	39	211
OPS NAS WHIDBEY ISLAND	7	33	6	29
PMRF HAWAII	11	53	8	44
HSL-51 DET 11	5	22	3	17
HC-85 (RESERVES)	35	223	22	126
VC-8	22	72	7	36
OPS NAS OCEANA	7	34	6	29
OPS NAS PATUXENT RIVER	9	28	6	29
OPS NAS PENSACOLA	11	48	6	29
OPS NAS KEY WEST	8	34	6	29
HS-75 (RESERVES)	8	37	9	27
OPS NAS CHINA LAKE	6	12	6	29
HMT-303 DET	8	56	0	0
OPS LEMOORE	6	28	6	29
OPS FALLON	7	30	6	29
OPS NAS MERIDIAN	7	25	6	29
OPS NAS BRUNSWICK	3	23	6	29
OPS CORPUS CHRISTI	9	38	6	29
OPS GUANTANAMO BAY	2	32	6	29
PMA-225 (H-3)	18	0	0	0
<b>Sub-Total</b>	262	1166	160	809
HS-2	9	27	9	27
HS-3	9	27	9	27
HS-4	9	27	9	27
HS-5	9	27	9	27

<b>TABLE 7 - CH-60 MANPOWER SUMMARY</b>				
<b>ACTIVITY</b>	<b>EXISTING</b>		<b>PROPOSED</b>	
	<b>OFFICER</b>	<b>ENLISTED</b>	<b>OFFICER</b>	<b>ENLISTED</b>
HS-6	9	27	9	27
HS-7	9	27	9	27
HS-8	9	27	9	27
HS-11	9	27	9	27
HS-14	9	27	9	27
HS-15	9	27	9	27
COMHSWINGPAC	12	24	12	24
COMHSWINGLANT	9	24	9	24
PMA-299 (H-60)	55		50	
<b>Sub-Total</b>	166	318	161	318
HCS-4 (Reserve)	41	203	41	203
HCS-5 (Reserve)	41	203	41	203
<b>Sub-Total</b>	82	406	82	406
SEAOPDET CVN-65	0	8	0	8
SEAOPDET CV-67	0	8	0	8
SEAOPDET CVN-71	0	8	0	8
SEAOPDET CVN-73	0	8	0	8
SEAOPDET CVN-74	0	12	0	12
SEAOPDET CV-64	0	8	0	8
SEAOPDET CVN-68	0	8	0	8
SEAOPDET CVN-70	0	8	0	8
SEAOPDET CVN-72	0	8	0	8
<b>Sub-Total</b>		76		76
MTU 1068 (H-3)	1	33	0	0
MTU 1028 (H-46)	0	21	0	0
MTU 1005 (H-60)	0	21	0	20
MTU 1022 (H-60)	1	34	1	31

<b>TABLE 7 - CH-60 MANPOWER SUMMARY</b>				
	<b>EXISTING</b>		<b>PROPOSED</b>	
<b>ACTIVITY</b>	<b>OFFICER</b>	<b>ENLISTED</b>	<b>OFFICER</b>	<b>ENLISTED</b>
<b>Sub-Total</b>	2	109	1	51
<b>Total</b>	911	3535	718	2993

**(3) Fleet Introduction Team.** The CH-60/SH-60R Fleet Introduction Team (FIT) has been established at Commander, Naval Air Force, U.S. Pacific Fleet (COMNAVAIRPAC), NAS North Island, California. The primary purpose of the FIT will be to coordinate fleet inputs and provide guidance to program offices. The FIT will also manage fleet introduction issues including operations, Naval Air Training and Operating Procedures Standardization (NATOPS) Model Manager, Fleet Readiness Squadron (FRS) Curriculum Model Manager, maintenance, supply and training initiatives. The CH-60/SH-60R FIT will have a unique Unit Identification Code (55628) and report directly to COMNAVAIRPAC. Table 8 below displays the draft billet file for the CH-60/SH-60R FIT.

<b>TABLE 8 - CH-60/SH-60R FLEET INTRODUCTION TEAM</b>			
<b>BSC</b>	<b>BILLET TITLE</b>	<b>RANK</b>	<b>DESIGNATOR/NEC</b>
00200	FIT Project Officer	CAPT	1312
00300	Assistant Project Officer	GS-13	NA
00400	Administration Supervisor	YNC	0000
00500	Administration Clerk	YN3	0000
00600	Education Specialist	PNC	0000
00700	Logistics Management Specialist	AKC	8012
00800	NATOPS	LT	1312
00900	NATOPS/SAR Crew Chief	AMHC	8215/9502
01000	Flight Instructor Pilot/Training Officer	LT	1312
01100	Maintenance Officer	LCDR	6330
01200	Aircraft/Avionics Officer	LT	6380
01300	Avionics Technician	ATC	8378
01400	Power Plants Technician	ADC	8378
01500	Electrical/Instrument Technician	AEC	8378

<b>TABLE 8 - CH-60/SH-60R FLEET INTRODUCTION TEAM</b>			
<b>BSC</b>	<b>BILLET TITLE</b>	<b>RANK</b>	<b>DESIGNATOR/NEC</b>
01600	Weapons/Ordnance Technician	AOC	8378
01700	Structures Technician	AMSC	8378
01800	Technical Support	AKC	8012
01900	Technical Publications/Reports	AZ1	6315

**4. Training Concept.** The CH-60 Training Program will consist of initial and follow-on training for operators and maintenance personnel. Initial operator and maintenance training will be provided by the contractor for Navy Test and Evaluation personnel in support of DT/OT, FRS instructors, Naval Aviation Maintenance Training Group (NAMTG) instructors, and an initial cadre of Fleet personnel. CH-60 follow-on (i.e., replacement) training will be provided through existing courses that have been modified to include CH-60 data.

**a. Initial Training.** Beginning in FY99, the Contractor will develop and conduct initial training for Navy Test and Evaluation personnel in support of DT/OT. In order to meet fleet introduction requirements, the Contractor will also develop and conduct initial training for FRS and NAMTG instructors, and an initial cadre of fleet personnel. This second block of initial training is scheduled to start in FY00. The contractor will provide this training as well as all materials required. Specific information for CH-60 initial training is not available at this time however, it is estimated that the following courses will be required.

**Title .....** **CH-60 Pilot Initial Training**  
**Description .....** To train Pilots in the skills and techniques required for performance as a CH-60 Pilot qualified in Model.  
**Location .....** HC-3, NAS North Island  
**Length .....** To Be Determined (TBD)  
**RFT date .....** FY99 (Number of classes is TBD)  
**TTE/TD .....** TBD  
**Prerequisites .....** Pilot qualified in the H-46, H-60, H-3, or H-1 helicopter.

**Title .....** **CH-60 VERTREP Aircrewman Initial Training**  
**Description .....** To train Aircrewman in the skills and techniques required to perform as a CH-60 Aircrewman qualified in Model.  
**Location .....** HC-3, NAS North Island  
**Length .....** TBD

RFT date ..... FY99 (Number of classes is TBD)  
TTE/TD ..... TBD  
Prerequisites ..... Aircrewman qualified in the H-46, H-60, H-3, or H-1 helicopter.

**Title ..... CH-60 Power Plants and Related Systems Initial Training**

Description ..... To provide AD personnel with the skills and knowledge required to be qualified in a CH-60 squadron.

Location ..... TBD

Length ..... TBD

RFT date ..... FY99 (Number of classes is TBD)

TTE/TD ..... TBD

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

**Title ..... CH-60 Airframes/Hydraulics and Related Systems Initial Training**

Description ..... To provide AMH/AMS personnel with the skills and knowledge required to be qualified in a CH-60 squadron.

Location ..... TBD

Length ..... TBD

RFT date ..... FY99 (Number of classes is TBD)

TTE/TD ..... TBD

Prerequisites ..... C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Strand Class A1.

**Title ..... CH-60 Electrical/Instruments and Flight Control Systems Initial Training**

Description ..... To provide AE personnel with the skills and knowledge required to be qualified in a CH-60 squadron.

Location ..... TBD

Length ..... TBD

RFT date ..... FY99 (Number of classes is TBD)

TTE/TD ..... TBD  
 Prerequisites ..... C-602-2039, Aviation Electrician's Mate O Level Strand Class A1.

**Title ..... CH-60 Electronics Systems Initial Training**  
 Description ..... To provide AT personnel with the skills and knowledge required to be qualified in a CH-60 squadron.  
 Location ..... TBD  
 Length ..... TBD  
 RFT date ..... FY99 (Number of classes is TBD)  
 TTE/TD ..... TBD  
 Prerequisites ..... C-100-2018, Avionics Technician O Level Class A1.

**Title ..... CH-60 Non-Designated Airman/Plane Captain Initial Training**  
 Description ..... To provide Non-Designated Airmen/Plane Captains with the skills and knowledge required to be a qualified Plane Captain in a CH-60 squadron.  
 Location ..... TBD  
 Length ..... TBD  
 RFT date ..... FY99 (Number of classes is TBD)  
 TTE/TD ..... TBD  
 Prerequisites ..... None.

**b. Follow-on Training.** Beginning in FY00 or FY01, follow-on training will be provided for operators by HC-3, NAS North Island, California. NAMTG Maintenance Training Units (MTU) 1005 at NAS Jacksonville, Florida, 1022 at NAS North Island, California, and 1066 at Naval Station (NS) Mayport, Florida, will provide follow-on maintenance training beginning in FY00 or FY01.

**(1) Operator.** Currently, SH-60B operator training is provided by Helicopter Antisubmarine Squadron Light (HSL)-41, NAS North Island, California, and HSL-40, NS Mayport, Florida. SH-60F and HH-60H operator training is currently provided by HS-10, NAS North Island. Within the CH-60 training concept, CH-60 operator training will be provided by HC-3 beginning in FY00. The following new operator courses will be established and stood

up at HC-3 to support this training. Since these are new courses, not all the required information is available.

**Title .....** **CH-60 CAT I Fleet Replacement Pilot**  
**CIN .....** E-2C-XXX1 (As part of pipeline E-2C-XXX1)  
**Model Manager ...** HC-3, NAS North Island  
**Description .....** To train the CH-60 Category I Fleet Replacement Pilot in the skills and techniques required for performance as a pilot qualified in model.  
**Location .....** HC-3, NAS North Island  
**Length .....** TBD  
**RFT date .....** FY00 or FY01  
**Skill identifier .....** 1311  
**TTE/TD .....** TTE for CH-60 is TBD. A new Weapon System Trainer (WST) and Tactical/Operational Flight Trainer (T/OFT) will be required.  
**Prerequisites .....** Designated Service Group II Naval Aviator. Designated Naval Helicopter Pilot.

**Title .....** **CH-60 CAT II Fleet Replacement Pilot**  
**CIN .....** E-2C-XXX2 (As part of pipeline E-2C-XXX2)  
**Model Manager ...** HC-3, NAS North Island  
**Description .....** To train the CH-60 Category II Fleet Replacement Pilot in the skills and techniques required for performance as a pilot qualified in model.  
**Location .....** HC-3, NAS North Island  
**Length .....** TBD  
**RFT date .....** FY00 or FY01  
**Skill identifier .....** 1311  
**TTE/TD .....** TTE for CH-60 is TBD. A new WST and T/OFT will be required.  
**Prerequisites .....** Designated Service Group II Naval Aviator. Designated Naval Helicopter Pilot.

**Title .....** **CH-60 Category III Fleet Replacement Pilot**  
**CIN .....** E-2C-XXX3 (As part of pipeline E-2C-XXX3)  
**Model Manager ...** HC-3, NAS North Island  
**Description .....** To train the CH-60 Category III Fleet Replacement Pilot in the skills and techniques required for performance as a pilot qualified in model.  
**Location .....** HC-3, NAS North Island  
**Length .....** TBD  
**RFT date .....** FY00 or FY01  
**Skill identifier .....** 1311  
**TTE/TD .....** TTE for CH-60 is TBD. A new WST and T/OFT will be required.  
**Prerequisites .....** Designated Service Group II Naval Aviator. Designated Naval Helicopter Pilot.

**Title .....** **CH-60 Category IV Fleet Replacement Pilot**  
**CIN .....** E-2C-XXX4 (As part of pipeline E-2C-XXX4)  
**Model Manager ...** HC-3, NAS North Island  
**Description .....** To train CH-60 Category IV Fleet Replacement Utility and/or SAR Pilots in the skills and techniques required for performance as a pilot qualified in model.  
**Location .....** HC-3, NAS North Island  
**Length .....** TBD  
**RFT date .....** FY00 or FY01  
**Skill identifier .....** 1311  
**TTE/TD .....** TTE for CH-60 is TBD. A new WST and T/OFT will be required.  
**Prerequisites .....** Designated Service Group II Naval Aviator. Designated Naval Helicopter Pilot.

**Title .....** **CH-60 Category V Fleet Replacement Pilot**  
**CIN .....** E-2C-XXX5 (As part of pipeline E-2C-XXX5)  
**Model Manager ...** HC-3, NAS North Island

Description ..... To train CH-60 Category V Fleet Replacement Pilots in the skills and techniques required for performance as a pilot qualified in model.

Location ..... HC-3, NAS North Island

Length ..... TBD

RFT date ..... FY00 or FY01

Skill identifier ..... 1311

TTE/TD ..... TTE for CH-60 is TBD. A new WST and T/OFT will be required.

Prerequisites ..... Designated Service Group II Naval Aviator. Designated Naval Helicopter Pilot.

**Title ..... CH-60 Category I VERTREP Aircrewman**

CIN ..... E-050-XXX1 (As part of pipeline E-050-XXX1)

Model Manager ... HC-3, NAS North Island

Description ..... To train the CH-60 Category I VERTREP Aircrewman in the skills and techniques required for performance as an aircrewman qualified in model.

Location ..... HC-3, NAS North Island

Length ..... TBD

RFT date ..... FY00 or FY01

Skill identifier ..... 82XX

TTE/TD ..... TTE for CH-60 is TBD. A new WST will be required.

Prerequisites ..... Q-050-1500, Naval Aircrew Candidate School; Q-050-0600, Aviation Rescue Swimmer School

**Title ..... CH-60 Category II VERTREP Aircrewman**

CIN ..... E-050-XXX2 (As part of pipeline E-050-XXX2)

Model Manager ... HC-3, NAS North Island

Description ..... To train the CH-60 Category II VERTREP Aircrewman in the skills and techniques required for performance as an aircrewman qualified in model.

Location ..... HC-3, NAS North Island

Length ..... TBD  
 RFT date ..... FY00 or FY01  
 Skill identifier ..... 82XX  
 TTE/TD ..... TTE for CH-60 is TBD. A new WST will be required.  
 Prerequisites ..... E-050-XXX1, CH-60 Category I VERTREP Aircrewman

**Title ..... CH-60 Category III VERTREP Aircrewman**  
 CIN ..... E-050-XXX3 (As part of pipeline E-050-XXX3)  
 Model Manager ... HC-3, NAS North Island  
 Description ..... To train the CH-60 Category III VERTREP Aircrewman in the skills and techniques required for performance as an aircrewman qualified in model.  
 Location ..... HC-3, NAS North Island  
 Length ..... TBD  
 RFT date ..... FY00 or FY01  
 Skill identifier ..... 82XX  
 TTE/TD ..... TTE for CH-60 is TBD. A new WST will be required.  
 Prerequisites ..... Q-050-1500, Naval Aircrewman Candidate School; Q-050-0600, Aviation Rescue Swimmer School. Be qualified in the H-60 series helicopter.

**Title ..... CH-60 Category V VERTREP Aircrewman**  
 CIN ..... E-050-XXX4 (As part of pipeline E-050-XXX4)  
 Model Manager ... HC-3, NAS North Island  
 Description ..... To train the CH-60 Category V VERTREP Aircrewman in the skills and techniques required for performance as an aircrewman qualified in model.  
 Location ..... HC-3, NAS North Island  
 Length ..... TBD  
 RFT date ..... FY00 or FY01  
 Skill identifier ..... 82XX  
 TTE/TD ..... TTE for CH-60 is TBD. A new WST will be required.  
 Prerequisites ..... Aircrewman qualified in the H-46, H-3, or H-1 helicopter.

(2) **Maintainer.** SH-60B, SH-60F and HH-60H enlisted maintenance training is currently provided by NAMTG Detachments, MTUs 1005, 1022, and 1066. With the exception of the AT rating, all enlisted ratings are trained with common courses that are applicable to the SH-60B, SH-60F, and HH-60H aircraft. In contrast, there are two types of training for the AT rating, SH-60B training and SH-60F/HH-60H training. SH-60B AT maintenance training is provided by MTUs 1066, and 1022, while SH-60F/HH-60H AT maintenance training is provided by MTUs 1005, and 1022.

The addition of the CH-60 helicopter (beginning in FY00) will not change the above scenario but will add to it. CH-60 maintenance training for all enlisted ratings except AT will be integrated into the existing common SH-60B, SH-60F, and HH-60H courses provided by MTUs 1005, 1022, and 1066. For the AT rating, a new Initial and Career CH-60 Electronics Systems course will be developed and established.

**Note:** With the addition of Initial and Career AT CH-60 Electronics Systems courses there will be three types of AT H-60 maintenance courses, an SH-60B, SH-60F/HH-60H, and CH-60. As CH-60s and the emerging SH-60R is introduced into the Fleet and the existing SH-60B, SH-60F, HH-60H aircraft diminish, the need for SH-60B and SH-60F/HH-60H AT training will diminish. When this training is no longer needed, based on aircraft assets, the corresponding courses can be closed.

The new AT courses (i.e., Initial and Career) and the existing H-60 courses that will need modification to include the CH-60 equipment and systems are listed below. The addition of CH-60 information to existing courses should pose a moderate impact to the overall course length. As a result, their course lengths may vary from those listed.

<b>Title .....</b>	<b>H-60 Power Plants and Related Systems Initial Organizational Maintenance</b>
CIN .....	C-601-9408 (As part of training tracks D/E-602-0810)
Model Manager ..	MTU 1026, NS Mayport
Description .....	Upon completion of this course, AD personnel will have sufficient knowledge and skills of the H-60 powerplants and related systems equipment, including operation, testing, maintenance, troubleshooting and repair procedures, to perform, under limited supervision, organizational maintenance in the squadron working environment both ashore and afloat.
Location .....	MTU 1005, NAS Jacksonville MTU 1022, NAS North Island

MTU 1066, NS Mayport

Length ..... 33 days (37 days for track)

RFT date ..... Currently available. FY00 or FY01 for CH-60.

Skill identifier .... 8878

TTE/TD ..... TTE for CH-60 is TBD. Portable Electronic Display Devices (PEDD) will be required for viewing Integrated Electronic Technical Manuals (IETM). The following H-60 maintenance Training Devices (TD) may need to be modified: SH-60B and SH-60F Starboard Engine Trainers, SH-60B and SH-60F Composite Maintenance Trainers (CMT).

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

**Title ..... H-60 Power Plants and Related Systems Career Organizational Maintenance**

CIN ..... C-601-9407 (As part of training tracks D/E-601-0813)

Model Manager .. MTU 1066, NS Mayport

Description ..... Upon completion of this course, AD personnel will have sufficient knowledge and skills of the H-60 powerplants and related systems equipment, including operation, testing, maintenance, troubleshooting and repair procedures, to perform organizational maintenance in the squadron working environment both ashore and afloat.

Location ..... MTU 1005, NAS Jacksonville  
 MTU 1022, NAS North Island  
 MTU 1066, NS Mayport

Length ..... 12 days (16 days for track)

RFT date ..... Currently available. FY00 or FY01 for CH-60.

Skill identifier .... 8378

TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required. The following H-60 maintenance TDs may need to be modified: SH-60B and SH-60F Starboard Engine Trainers, SH-60B and SH-60F CMTs.

Prerequisites ..... D/E-602-0810, H-60 Power Plants and Related Systems Initial Organizational Maintenance

**Title .....** **H-60 Electrical/Instruments and Automatic Flight Control Systems Initial Organizational Maintenance**

CIN ..... C-602-9409 (As part of training tracks D/E-602-0855)

Model Manager .. MTU 1022, NAS North Island

Description ..... Upon completion of this course, AE personnel will have sufficient knowledge and skills, including operation, testing, troubleshooting, and repair procedures, to perform, under limited supervision, organizational maintenance on the H-60 Helicopter in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
 MTU 1022, NAS North Island

Length ..... 75 days (79 days for track)

RFT date ..... Currently available. FY00 or FY01 for CH-60.

Skill identifier ..... 8878

TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required. The following H-60 maintenance TDs may need to be modified: SH-60B and SH-60F CMTs, SH-60B and SH-60F AFCS Trainers, SH-60B and SH-60F Landing Gear/Wheel Brake Trainers, SH-60B and SH-60F Recovery, Assist, Secure, Traverse (RAST)/Tail Wheel/Rescue Hoist Trainers.

Prerequisites ..... C-602-2039, Aviation Electrician's Mate O Level Strand Class A1

**Title .....** **H-60 Electrical/Instrument and Automatic Flight Control Systems Career Organizational Maintenance**

CIN ..... C-602-9407 (As part of training tracks D/E-602-0854)

Model Manager .. MTU 1022, NAS North Island

Description ..... Upon completion of this course, AE personnel will have advanced knowledge and skills including the theory of operation, organizational maintenance practices, testing and troubleshooting of the H-60 electrical/instruments and related systems to perform organizational maintenance in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
 MTU 1022, NAS North Island

Length ..... 12 days (23 days for track)  
RFT date ..... Currently available. FY00 or FY01 for CH-60.  
Skill identifier ..... 8378  
TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required. The following H-60 maintenance TDs may need to be modified: SH-60B and SH-60F CMTs, SH-60B and SH-60F AFCS Trainers.  
Prerequisites ..... D/E-602-0855, H-60 Electrical/Instruments and Automatic Flight Systems Initial Organizational Level Maintenance

**Title ..... H-60 Airframes and Hydraulic Systems Initial Organizational Maintenance**

CIN ..... C-603-9408 (As part of training tracks D/E-602-0883)  
Model Manager .. MTU 1005, NAS Jacksonville  
Description ..... Upon completion of this course, the Aviation Structural Mechanics will have sufficient knowledge and skill of the H-60 airframes and related systems equipment, including operation, testing, maintenance, troubleshooting and repair procedures, to perform, under limited supervision, organizational level maintenance in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
MTU 1022, NAS North Island  
MTU 1066, NS Mayport

Length ..... 30 days (32 days for track)  
RFT date ..... Currently available. FY00 or FY01 for CH-60.  
Skill identifier ..... 8878  
TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required. The following H-60 maintenance TDs may need to be modified: SH-60B and SH-60F CMTs, SH-60B and SH-60F Landing Gear/Wheel Brake Trainers, SH-60B and SH-60F RAST/Tail Wheel/Rescue Hoist Trainers.  
Prerequisites ..... C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Strand Class A1

**Title ..... H-60 Career Airframes and Hydraulics Systems**

### **Organizational Maintenance**

CIN ..... C-603-9407 (As part of training tracks D/E-602-0882)

Model Manager .. MTU 1005, NAS Jacksonville

Description ..... Upon completion of this course, Aviation Structural Mechanics will have advanced knowledge and skills of the H-60 airframes and related systems equipment, including testing, maintenance, troubleshooting and repair procedures, to perform, organizational level maintenance in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
MTU 1022, NAS North Island  
MTU 1066, NS Mayport

Length ..... 5 days (9 days for track)

RFT date ..... Currently available. FY00or FY01 for CH-60.

Skill identifier ..... 8378

TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required. The following H-60 maintenance TDs may need to be modified: SH-60B and SH-60F CMTs

Prerequisites ..... D/E-602-0883, H-60 Airframes and Hydraulic Systems Initial Organizational Maintenance

**Title ..... CH-60 Electronics Systems Initial Organizational Maintenance**

CIN ..... C-102-XXX1 (As part of training tracks D/E-102-XXX1)

Model Manager .. TBD

Description ..... Upon completion of this course, AT personnel will have acquired sufficient skill and knowledge of the CH-60 avionics equipment, system analysis, maintenance, repair and troubleshooting techniques, to perform, under limited supervision, organizational level maintenance in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
MTU 1022, NAS North Island

Length ..... TBD

RFT date ..... FY00 or FY01

Skill identifier ..... 88XX

TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required.

Prerequisites ..... C-100-2018, Avionics Technician O Level Class A1

**Title ..... CH-60 Electronic Systems Career Organizational Maintenance**

CIN ..... C-102-XXX2 (As part of training tracks D/E-102-XXX2)

Model Manager .. TBD

Description ..... Upon completion of this course, AT personnel will have sufficient knowledge and skills including theory of operation, organizational maintenance practices, and troubleshooting procedures of the CH-60 helicopter electronic systems, to perform organizational maintenance in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
 MTU 1022, NAS North Island

Length ..... TBD

RFT date ..... FY00 or FY01

Skill identifier ..... 83XX

TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required.

Prerequisites ..... D/E-102-XXXX, CH-60 Electronics Systems Initial Organizational Maintenance

**Title ..... H-60 Armament and Related Systems Organizational Maintenance**

CIN ..... C-646-9407 (As part of training tracks D/E-646-0840)

Model Manager .. MTU 1022, NAS Jacksonville

Description ..... Upon completion of this course, AO personnel will have sufficient knowledge and skills, including theory of operation, organizational maintenance practices and troubleshooting procedures of the H-60 helicopter ordnance systems, to perform organizational maintenance in the squadron working environment.

Location ..... MTU 1005, NAS Jacksonville  
 MTU 1022, NAS North Island



support equipment, to perform, under limited supervision, organizational maintenance within the squadron environment.

Location ..... MTU 1005, NAS Jacksonville  
 MTU 1022, NAS North Island  
 MTU 1066, NS Mayport

Length ..... 5 days

RFT date ..... Currently available. FY00 or FY01 for CH-60.

Skill identifier ..... None

TTE/TD ..... TTE for CH-60 is TBD. PEDDs will be required. No TDs are required.

Prerequisites ..... AT: C-100-2018, Avionics Technician O-Level Class A1  
 AE: C-602-2039, Aviation Electrician's Mate O-Level Strand Class A1  
 AO: C-646-2012, Aviation Ordnanceman Airwing Strand Class A1

**c. Student Profiles.** Table 9 below depicts the profiles of students that will attend CH-60 training.

<b>TABLE 9 - CH-60 STUDENT PROFILES</b>	
<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
1311	Q-2A-0001, Primary Flight Training Q-2A-0010, Joint T-34C Intermediate Flight Training Q-2A-0015, Undergraduate Helicopter Pilot Training E-2D-0032, Survival, Evasion, Resistance, and Escape Training J-495-0413, Shipboard Aircraft Firefighting.
82XX	Q-050-1500, Naval Aircrewman Candidate School Q-050-0600, Aviation Rescue Swimmer School

<b>TABLE 9 - CH-60 STUDENT PROFILES</b>	
<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
AD 8878	C-601-2011, Aviation Machinist's Mate Common Core Class A1  C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1
AD 8378	C-601-2011, Aviation Machinist's Mate Common Core Class A1  C-601-2012, Aviation Machinist's Mate Helicopter Fundamentals Strand Class A1  D/E-602-0810, H-60 Power Plants and Related Systems Initial Organizational Maintenance
AE 8878	C-100-2020, Avionics Common Core Class A1  C-602-2039, Aviation Electricians Mate O Level Strand Class A1
AE 8378	C-100-2020, Avionics Common Core Class A1  C-602-2039, Aviation Electricians Mate O Level Strand Class A1  D/E-602-0855, H-60 Electrical/Instruments and Automatic Flight Control Systems Initial Organizational Maintenance
AMH/S 8878	C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Common Core Class A1  C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Strand Class A1.

<b>TABLE 9 - CH-60 STUDENT PROFILES</b>	
<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
AMH/S 8378	C-603-0175, Aviation Structural Mechanic (Structures and Hydraulics) Common Core Class A1  C-603-0176, Aviation Structural Mechanic (Structures and Hydraulics) Strand Class A1  D/E-602-0883, H-60 Airframes and Hydraulic Systems Initial Organizational Maintenance
AT 88XX	C-100-2020, Avionics Common Core Class A1  C-100-2018, Avionics Technician O Level Class A1.
AT 83XX	C-100-2020, Avionics Common Core Class A1  C-100-2018, Avionics Technician O Level Class A1  D/E-102-XXX1, CH-60 Electronics Systems Initial Organizational Maintenance
AO 8378	C-646-2011, Aviation Ordnanceman Common Core Class A1  C-646-2012, Aviation Ordnanceman Airwing Strand Class A1
AN	A-950-0069, Airman Apprentice Training

**d. Training Pipelines.** Table 10 below contains the proposed new training tracks required to support the CH-60.

<b>TABLE 10 - PROPOSED NEW CH-60 TRAINING TRACKS</b>			
<b>TRACK NUMBER</b>	<b>TRACK TITLE</b>	<b>LOCATION</b>	<b>RFT DATE</b>
E-2C-XXX1	CH-60 Fleet Replacement Pilot Category I Pipeline	HC-3, NAS North Island	FY00 or FY01
E-2C-XXX2	CH-60 Fleet Replacement Pilot Category II Pipeline	HC-3, NAS North Island	FY00 or FY01
E-2C-XXX3	CH-60 Fleet Replacement Pilot Category III Pipeline	HC-3, NAS North Island	FY00 or FY01
E-2C-XXX4	CH-60 Fleet Replacement Pilot Category IV Pipeline	HC-3, NAS North Island	FY00 or FY01
E-2C-XXX5	CH-60 Fleet Replacement Pilot Category V Pipeline	HC-3, NAS North Island	FY00 or FY01
E-050-XXX1	CH-60 VERTREP Aircrewman Category I Pipeline	HC-3, NAS North Island	FY00 or FY01
E-050-XXX2	CH-60 VERTREP Aircrewman Category II Pipeline	HC-3, NAS North Island	FY00 or FY01
E-050-XXX3	CH-60 VERTREP Aircrewman Category III Pipeline	HC-3, NAS North Island	FY00 or FY01
E-050-XXX5	CH-60 VERTREP Aircrewman Category V Pipeline	HC-3, NAS North Island	FY00 or FY01
D/E-102-XXX1	CH-60 Electronics Systems Initial Organizational Maintenance	MTU 1022, NAS North Island MTU 1005, NAS Jacksonville	FY00 or FY01
D/E-102-XXX2	CH-60 Electronic Systems Career Organizational Maintenance	MTU 1022, NAS North Island MTU 1005, NAS Jacksonville	FY00 or FY01

## **I. ONBOARD (IN-SERVICE) TRAINING**

### **1. Proficiency or Other Training Organic to the New Development**

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

AMTCS redesigns the aviation training process (training continuum), and introduces Computer-Based Training (CBT) throughout the Navy technical training process. The application and adoption of recent advances in computer hardware and software technology have enabled CBT with its basic elements of Computer Managed Instruction, Computer Aided Instruction, and Interactive Courseware to be integrated into the training continuum and provide essential support for standardizing technical training.

The AMTCS Project Plan denotes that NAMTG, MTUs 1005, 1022, and 1066 began the transition to CBT the first quarter of FY98. Therefore, it is anticipated that H-60 Maintenance training will be in CBT format prior to the CH-60 curriculum being introduced.

**2. Personnel Qualification Standards.** Currently, the reserve HCS squadrons utilize Personnel Qualification Standards (PQS) to train and qualify pilots and enlisted aircrewmembers in the HH-60H helicopter. Should there be a similar requirement for CH-60 PQS development, contact Naval Education and Training Professional Development and Technology Center, PQS Development Group for information concerning the development, production, or printing of PQS documents.

**3. Other Onboard or In-service Training Packages.** AD, AE, AMH, AMS, and AO personnel who were previously trained and awarded NECs 8378 or 8878 will retain these NECs for the CH-60 helicopter. These personnel will acquire the sufficient knowledge and skills of the CH-60 systems through the on-the-job-training process.

## J. LOGISTICS SUPPORT

### 1. Manufacturer and Contract Numbers

CONTRACT NUMBER	MANUFACTURER	ADDRESS
DAAJ09-97-C-0005	Sikorsky Aircraft Corporation	6900 Main Street P.O. Box 9727 Stratford, CT 06497-9129

**2. Program Documentation.** The Draft CH-60 Integrated Logistics Support Plan has been distributed and applies to the Initial Demonstration and the Engineering and Manufacturing Development Phase of the CH-60 Helicopter Program.

**3. Technical Data Plan.** The CH-60 technical publications will be produced, distributed, and supported in an IETMs format, including software and hardware support. The CH-60 technical publications will support the airframe, mission avionics, engine and support equipment and will be developed with close coordination between Naval Air Technical Services Facility, applicable NAVAIRSYSCOM Field Activities, and Contractor personnel.

**4. Test Sets, Tools, and Test Equipment.** Since the CH-60 is a derivative of other existing H-60 systems, most of the support equipment required is available in the Government inventory. Newly designed CH-60 avionics systems will be compatible with the Consolidated Automated Support System (CASS) Automatic Test Equipment. All test requirements will be with CASS unless significant economic and readiness benefits result from use of a unique test set.

**5. Repair Parts.** Naval Inventory Control Point (NAVICP) files will be updated to reflect CH-60 applicability on the HH-60H common parts. A Parts Difference List will be developed using the HH-60H and CH-60 Engineering Gross Requirements List (GRL) and applicable NAVICP tapes. A comparison of the HH-60H and CH-60 GRLs will spike out the items that are peculiar to the HH-60H only. These items will be extracted from the NAVICP tape to produce a list of items common to the CH-60 for delivering to NAVICP by the contractor. Support for the Common Cockpit will differ from other components on the CH-60. Support concept will change to “Original Equipment Manufacturer”. This will result in the elimination of organic intermediate and depot levels spare and repair part requirements. As a result of the change in support concept, organizational level spare requirements will increase. The range of spares will remain unchanged; however, the depth will increase because of increased turnaround time resulting from the time required to ship retrograde non-ready for issue assets back to the Continental United States contractor, then repair the items and return them to the fleet. The Material Support Date for the CH-60 has not been determined yet.

**6. Human Systems Integration.** The Human Systems Integration (HSI) Plan establishes the basis for effective integration of human factors engineering, manpower, personnel, training, health hazards, and safety considerations into the CH-60 acquisition as outlined in Department of Defense (DoD) Instruction 5000.2R. The NAVAIRSYSCOM Multi-Mission Helicopter HSI Integrated Process Team is currently working on the draft version of this plan.

## K. SCHEDULES

### 1. Installation and Delivery Schedules

TABLE 11 - CH-60 UNIT TYPE AND FIELDING YEAR (CALENDAR)											
UNIT TYPE	00	01	02	03	04	05	06	07	08	09	TOTAL

<b>TABLE 11 - CH-60 UNIT TYPE AND FIELDING YEAR (CALENDAR)</b>											
<b>UNIT TYPE</b>	<b>00</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>TOTAL</b>
<b>NAVY ACTIVE:</b>											
HC-3	7	4	3	0	0	0	0	0	0	0	14
HC-5	4	8	2	0	0	0	0	0	0	0	14
HC-6	2	6	7	1	0	0	0	0	0	0	16
HC-8	0	0	6	8	2	0	0	0	0	0	16
HC-11	0	0	0	9	11	0	0	0	0	0	20
HC-2	0	0	0	0	5	6	0	0	0	0	11
NAS Whidbey	0	0	0	0	0	0	2	0	0	0	2
PMRF Hawaii	0	0	0	0	0	0	3	0	0	0	3
HSL-51 Det-11	0	0	0	0	0	0	1	0	0	0	1
VC-8	0	0	0	0	0	0	2	0	0	0	2
NAS Oceana	0	0	0	0	0	0	0	2	0	0	2
NAS Pax River	0	0	0	0	0	0	0	2	0	0	2
NAS Pensacola	0	0	0	0	0	0	0	2	0	0	2
NAS Key West	0	0	0	0	0	0	0	2	0	0	2
NAWS China Lake	0	0	0	0	0	0	0	2	0	0	2
NAS Lemoore	0	0	0	0	0	0	0	2	0	0	2
NAS Fallon	0	0	0	0	0	0	0	2	0	0	2
NAS Meridian	0	0	0	0	0	0	0	2	0	0	2
NAS Corpus Christi	0	0	0	0	0	0	0	2	0	0	2
NAS Brunswick	0	0	0	0	0	0	0	0	2	0	2
NS Guantanamo Bay	0	0	0	0	0	0	0	0	2	0	2
HS-2	0	0	0	0	0	0	0	0	2	0	2
HS-4	0	0	0	0	0	0	0	0	2	0	2
HS-6	0	0	0	0	0	0	0	0	2	0	2
HS-8	0	0	0	0	0	0	0	0	2	0	2
HS-14	0	0	0	0	0	0	0	0	2	0	2
HS-3	0	0	0	0	0	0	0	0	2	0	2

<b>TABLE 11 - CH-60 UNIT TYPE AND FIELDING YEAR (CALENDAR)</b>											
<b>UNIT TYPE</b>	<b>00</b>	<b>01</b>	<b>02</b>	<b>03</b>	<b>04</b>	<b>05</b>	<b>06</b>	<b>07</b>	<b>08</b>	<b>09</b>	<b>TOTAL</b>
HS-5	0	0	0	0	0	0	0	0	2	0	2
HS-7	0	0	0	0	0	0	0	0	0	2	2
HS-11	0	0	0	0	0	0	0	0	0	2	2
HS-15	0	0	0	0	0	0	0	0	0	2	2
<b>NAVY RESERVE:</b>											
HCS-4	0	0	0	0	0	8	0	0	0	0	8
HCS-5	0	0	0	0	0	4	4	0	0	0	8
HC-85	0	0	0	0	0	0	6	0	0	0	6
HS-75	0	0	0	0	0	0	0	0	0	2	2
<b>TOTAL</b>	<b>13</b>	<b>18</b>	<b>8</b>	<b>165</b>							

**2. Ready For Operational Use Schedule.** The CH-60 will be ready for operational use upon delivery to the Fleet.

**3. Time Required to Install at Operational Sites.** NA

**4. Foreign Military Sales and Other Source Delivery Schedule.** There are currently no plans for FMS of the CH-60 helicopter.

**5. Training Device and Technical Training Equipment Delivery Schedule.** The CH-60 Training System will include both operator and maintenance training. All CH-60 training devices will be common to the greatest extent possible with the current training suites and will provide a growth path to the SH-60R. All training devices will utilize a common H-60 weapon system design architecture and will comply with DoD directives for networking as applicable in their design.

**a. Operator Training Devices.** Operator training will utilize a Weapon System Trainer (WST) and a Tactical/Operational Flight Trainer (T/OFT). These devices will integrate full aircraft weapon system functionality of pilot and aircrew stations, provide a flight fidelity visual system, and will provide simulation of the full range of aircraft missions.

**(1) Weapon System Trainer.** There are currently eight H-60 WSTs. Four of these are SH-60F trainers and four are SH-60B trainers. Under the current CH-60 (and SH-60R) training concept, these trainers will be modified to CH-60/SH-60R WSTs. Once converted they will feature a full flight fidelity capability. The visual systems will include a high fidelity day-night image generator, databases, and night vision device compatibility. Full weapon

system functionality will be provided, including Forward Looking Infra-Red, Hellfire, Aircraft Survivability Equipment, Navigation, Communication, etc., with the cockpit providing full tactile sensations.

**(2) Tactical/Operational Flight Trainer.** There are currently two H-60 T/OFTs. Both of these are SH-60B trainers. Under the current CH-60 (and SH-60R) training concept, both of these trainers will be modified to CH-60/SH-60R T/OFTs. In addition, two more of these trainers will be purchased for a total of four. These trainers will be non-motion based flight simulators that support pilot and co-pilot tactics, navigation, equipment malfunction, communications, aircrew coordination, and emergency procedures training as applicable. The visual systems will include a high fidelity day-night image generator, databases, and night vision device compatibility. The T/OFT will improve aviation safety by allowing the aircrew to practice emergency procedures and refine their aircrew coordination skills. Table 12 below displays the location of the WSTs and T/OFTs and their estimated Ready For Training (RFT) dates.

<b>TABLE 12 - PROPOSED CH-60/SH-60R OPERATOR TRAINING DEVICES</b>					
<b>ACTIVITY</b>	<b>WST</b>	<b>T/OFT</b>	<b>CONTRACT DATE</b>	<b>RFT DATE</b>	<b>COMMENTS</b>
NAS North Island		X	FY99	FY00	New Manufacture
NAF Atsugi		X	FY00	FY02	
NAS North Island	X		FY01	FY02	SH-60B Conversion
NAS Jacksonville		X	FY02	FY03	New Manufacture
NAS North Island	X		FY03	FY04	SH-60B Conversion
NS Mayport		X	FY04	FY05	SH-60B Conversion
NAS North Island		X	FY05	FY06	SH-60B Conversion
NAS Jacksonville	X		FY05	FY06	SH-60F Conversion
NAS North Island	X		FY06	FY07	SH-60F Conversion
NAS Jacksonville	X		FY07	FY08	SH-60F Conversion
NS Mayport	X		FY08	FY08	SH-60B Conversion
NS Mayport	X		TBA	TBA	SH-60B Conversion
NAS North Island	X		FY08	FY09	SH-60F Conversion

**b. Maintenance Training Devices.** There are numerous maintenance training devices associated with the existing SH-60B, SH-60F, and HH-60H training systems. Virtually all of these devices will require some degree of modification to support the CH-60 and SH-60R

training concept. Table 13 below displays these devices and an estimate of the degree of modification they will require.

<b>TABLE 13 - PROPOSED CH-60/SH-60R MAINTENANCE TRAINING DEVICES</b>				
	<b>LOCATION</b>			
<b>DEVICE</b>	<b>MTU 1005</b>	<b>MTU 1022</b>	<b>MTU 1066</b>	<b>COMMENTS</b>
SH-60B CMT		X	X	Modification Required
SH-60B Landing Gear/Wheel Brake/Floatation Trainer		X	X	Modification Required
SH-60B RAST/ Tail Wheel/Hoist Trainer		X	X	Modification Required
SH-60B Main Rotor Blade/BIM Service Trainer		X	X	No Modification
SH-60B Starboard Engine Trainer		X	X	No Modification
SH-60B AFCS Trainer		X	X	Modification Required
SH-60B AMT		X	X	No Modification
SH-60F CMT	X	X		Modification Required
SH-60F Landing Gear Trainer	X	X		Modification Required
SH-60F RAST/ Tail Wheel/Hoist Trainer	X	X		Modification Required
SH-60F Main Rotor Blade/BIM Service Trainer	X	X		Modification Required
SH-60F Starboard Engine Trainer	X	X		No Modification
SH-60F AFCS Trainer	X	X		Modification Required
SH-60F AMT	X	X		No Modification

<b>TABLE 13 - PROPOSED CH-60/SH-60R MAINTENANCE TRAINING DEVICES</b>				
	<b>LOCATION</b>			
<b>DEVICE</b>	<b>MTU 1005</b>	<b>MTU 1022</b>	<b>MTU 1066</b>	<b>COMMENTS</b>
SH-60F Ordnance System Trainer	X	X		Modification Required

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

**M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS.** Table 14 (below) lists the documents applicable to the CH-60 program.

<b>TABLE 14 - RELATED NTSPs AND OTHER DOCUMENTS</b>			
<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
Light Airborne Multi-Purpose System (LAMPS) MK-III	A-50-7702	PMA299	Approved - Nov 94
SH-60F Carrier Inner-Zone ASW Helicopter	A-50-8508	PMA299	Approved - Sep 94
HH-60H Combat SAR-SWS Support Helicopter	A-50-8714	PMA299	Approved - Dec 93
SH-60R Multi-Mission Helicopter	A-50-9403	PMA299	Draft - Jun 94
H-60 Armed Helicopter	Z-50-0027	PMA299	Draft - Jul 97
H-46 Helicopter	A-50-9409	PMA226	Draft - Dec 97
Aviation Maintenance Training Continuum System (AMTCS)	Z-50-0046	PMA205	Draft - Jan 98
SH/UH-3H Helicopter Transition	A-50-8901	PMA225	Draft - May 94
Mission Need Statement for a Fleet Combat Support (HC) Helicopter	NA	CNO-N88	Draft - Aug 94

**TABLE 14 - RELATED NTSPs AND OTHER DOCUMENTS**

<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
Operational Requirements Document for a CH-60 Fleet Combat Support (HC) Helicopter	NA	CNO-N88	Draft - Nov 97
CH-60 Cost Analysis Requirements Description	NA	PMA299	Draft - Nov 97
CH-60 Integrated Logistics Support Plan	NA	AIR-3.1.2Q	Draft - Oct 97
Manpower Estimate Report for the USN CH-60 Fleet Combat Support Helicopter	NA	PMA299	Draft - Jan 98

## APPENDIX A - POINTS OF CONTACT

NAME, ACTIVITY, CODE	FUNCTION	TELEPHONE NUMBERS COMMERCIAL, DSN, FAX INTERNET ADDRESS
CAPT C. Deitchman CNO N880EH	CH-60 Requirements Officer	(703) 695-2723, DSN 225 (703) 614-7047, DSN 224 (fax) deitchman.charles@hq.navy.mil
CAPT P. Laszcz CNO N881B	Head, Plans, Policy, and Fleet Maintenance Support	(703) 604-7747, DSN 664 (703) 604-6972, DSN 664 (fax) laszcz.pete@hq.navy.mil
CAPT D. Bell CNO N88R	Helicopter Coordinator, Naval Air Reserve	(703) 604-7727, DSN 664 (703) 604-6969, DSN 664 (fax) bell.dan@hq.navy.mil
CAPT F. Smith CNO N889H	Head, Aviation Technical Training Branch	(703) 604-7730, DSN 664 (703) 604-6969, DSN 664 (fax) smith.frank@hq.navy.mil
LCDR G. Chamberlain CNO N889F3	Training Requirements Officer	(703) 604-7721, DSN 664 (703) 604-6939, DSN 664 (fax) chamberlain.george@hq.navy.mil
MAJ V. Caldwell CNO N889H3	Helicopter Training Requirements	(703) 604-7762, DSN 664 (703) 604-6969, DSN 664 (fax) caldwell.vern@hq.navy.mil
LCDR D. Street CNO N125E	Aviation Manpower	(703) 614-5362, DSN 224 (703) 614-5308, DSN 224 (fax) n125e@bupers.navy.mil
MSGT D. Anderson CNO N889H2A	NTSP Manager	(703) 604-7722, DSN 664 (703) 604-6969, DSN 664 (fax) anderson.david@hq.navy.mil
Mr. R. Zweibel CNO N75B	Training Technology Policy	(703) 614-1344, DSN 224 (703) 695-5698, DSN 225 (fax) zweibel.robert@hq.navy.mil
AWCS S. Russell CNO N889F6	Aircrew Training Requirements	(703) 604-7708, DSN 664 (703) 604-6939, DSN 664 (fax) russel.scott@hq.navy.mil
CAPT L. Cable NAVAIRSYSCOM PMA299	Program Manager, Multi-Mission Helicopters	(301) 757-5409, DSN 757 (301) 757-5437, DSN (fax) cablelg.ntrprs@navair.navy.mil

**APPENDIX A - POINTS OF CONTACT**

<b>NAME, ACTIVITY, CODE</b>	<b>FUNCTION</b>	<b>TELEPHONE NUMBERS COMMERCIAL, DSN, FAX INTERNET ADDRESS</b>
CDR J. Gengo NAVAIRSYSCOM PMA2992	CH-60 Deputy Program Manager	(301) 757-5332, DSN 757 (301) 757-5437, DSN 757 (fax) gengojt.jfk@navair.navy.mil
LCDR J. Franklin NAVAIRSYSCOM PMA299	CH-60 Deputy Assistant Program Manager	(301) 757-5334, DSN 757 (301) 757-5437, DSN 757 (fax) franklinjt.jfk@navair.navy.mil
CDR J. Rosa NAVAIRSYSCOM AIR 3.1.2Q	H-60 Assistant Program Manager for Logistics	(301) 757-5337, DSN 757 (301) 757-5437, DSN 757 (fax) rosajs.ntprs@navair.navy.mil
Ms. J. Pollard NAVAIRSYSCOM AIR 3.1.2Q2	CH-60 Deputy Assistant Program Manager for Logistics	(301) 757-5330, DSN 757 (301) 757-5437, DSN 757 (fax) pollardj.jfk@navair.navy.mil
CDR C. Toomer NAVAIRSYSCOM PMA2052D	CH-60 Training Systems Program Manager	(301) 757-8157, DSN 757 (301) 757-6945, DSN 757 (fax) toomercw.jfk@navair.navy.mil
LCDR Kules CINCLANTFLT N721B	Assistant for Air Training	(757) 322-6809, DSN 836 (757) 322-0141, DSN 836 (fax) kulesel@clf.navy.mil
LT C. Presley CINCPACFLT N343	Fleet Readiness Support	(808) 474-6965, DSN 474 (808) 471-8601, DSN 471 (fax) s343@cpt.navy.smil.mil
CAPT R. Gibson BUPERS PERS-4B	Deputy Assistant, Chief of Military Personnel for Distribution	(703) 614-3454, DSN 224 (703) 614-7705, DSN 224 (fax) p4b@buper.navy.mil
CDR Lineberg BUPERS PERS-404	Branch Head, Aviation Ratings	(703) 693-1370, DSN 223 (703) 693-1392, DSN 223 (fax) p404@bupers.navy.mil
CAPT P. Pratt, USMC CNET ETE 322	Aviation Technical Training	(850) 452-4883, DSN 922 (850) 452-4901, DSN 922 (fax) capt_paul.pratt@smtp.cnet.navy.mil
GMCM T. Merrill NETPDTC	PQS Development Group LCPO	(904) 452-1708, DSN 922 (904) 452-1764, DSN 922 (fax) gmcm-timothy.merril@smtp.cnet.navy.mil

**APPENDIX A - POINTS OF CONTACT**

<b>NAME, ACTIVITY, CODE</b>	<b>FUNCTION</b>	<b>TELEPHONE NUMBERS COMMERCIAL, DSN, FAX INTERNET ADDRESS</b>
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Mr. Bruce Colby NAVAIRSYSCOM AIR 3.4.1	Front End Analysis Manager	(301) 757-2635, DSN 757 (301) 342-4723, DSN 342 (fax) colby_bruce%pax8b@mr.nawcad.navy.mil
AFCM M. Breboneria NAVAIRSYSCOM AIR 3.4.1	Front End Analysis Coordinator	(301) 757-9184, DSN 757 (301) 342-4723, DSN 342 (fax) breboneria_marlon%pax8b@mr.nawcad.navy.mil
AMCS J. Minghella NAVAIRSYSCOM AIR 3.4.1	Manpower, Personnel, and Training Analyst	(301) 757-9198, DSN 757 (301) 342-4723, DSN 342 (fax) minghella_jeff%pax8b@mr.nawcad.navy.mil