NAVAIR

NAVY TRAINING SYSTEM PLAN

FOR THE

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY (AESA) RADAR

N78-NTSP-A-50-0113/D

FEBRUARY 2003

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

EXECUTIVE SUMMARY

This Draft Navy Training System Plan for the AN/APG-79 Active Electronically Scanned Array (AESA) Radar was developed by the Naval Air Systems Command using the Training Planning Process Methodology for Equipment, Systems, and Subsystems. This document provides an early estimate of the manpower, personnel, and training requirements necessary to support and sustain the AESA. The AESA is a Category IC program, and is in the System Development and Demonstration phase of the Defense Acquisition System (DAS). The program is on track for a June 2003 Milestone C decision prior to beginning the first phase of Low Rate of Initial Production (LRIP-I). The Production and Deployment phase of the DAS is tentatively scheduled for first quarter Fiscal Year (FY) 07. Initial Operational Capability (IOC) is scheduled for FY07.

The AESA Radar will be the primary search/track and weapons control radar for the F/A-18E/F Aircraft and may be employed on any F/A-18E/F mission to include Anti-Air Warfare, Strike Warfare, Anti-Surface Ship Warfare, Close Air Support, Tactical Air Control, Reconnaissance (to include high-resolution Ground Mapping), and Near Simultaneous Missions. The AESA Radar is the successor to the AN/APG-73 Radar and will provide greatly increased air-to-air detection/track ranges, enhanced air-to-ground targeting, longer launch ranges for stand-off weapons, and enhanced capability (including self-protective Electronic Warfare) against advanced threats. The system is expected to be vastly superior to its predecessor in both performance and ease of maintenance. It will be more affordable and have a lower overall Life Cycle Cost as the concept of Built-In Reliability has guided its development throughout the planning and design stages. It is envisioned that the AESA will interface with the Naval Aviation Logistics Command Management Information System (NALCOMIS) and the Automated Maintenance Environment (AME) to provide improved maintenance information at all levels. Where feasible and affordable, the AESA Radar system will make maximum use of open system architecture. Currently, the antenna is classified “Secret.” Any changes to the security classification will be included in future updates to this NTSP.

The current maintenance concept is two-level: organizational to depot . At a minimum, organizational level maintenance will be capable of fault isolation down to the faulty assembly. Raytheon Corporation, acting as the interim depot until establishment of the organic depot, will perform all repairs to include overhauling, rebuilding, and calibration of equipment.

The AESA training program will provide for initial and follow-on training for operators and maintenance personnel. The contractor will provide initial training for Navy Test and Evaluation aircrew and maintenance personnel in support of Developmental Test and Operational Test, scheduled to begin in May 2003 and be completed in July 2005. The contractor will also develop and conduct initial training for Fleet Readiness Squadron (FRS) Instructors and Naval Air Maintenance Training Unit (NAMTRAU) Instructors.

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

To accomplish follow-on AESA training, aircrew-training syllabi will incorporate the use of Aircrew Simulators (Tactical Trainers), Computer-Based Training (CBT), and actual aircraft flights to ensure Pilot and Weapons Sensor Officer (WSO) proficiency. The maintenance curriculum will utilize the F/A-18E/F Avionics Maintenance Trainer Set (MTS), CBT, and actual aircraft to convey the learning objectives. Software upgrades which provide AESA functionality in existing and planned simulators and trainers form an important part of integrating AESA into Navy aircrew and maintainer training.

Navy organic aircrew and maintenance training will begin in FY05 on the West coast at Lemoore, California, both at the Fleet Readiness Squadron (FRS) Fighter/Attack Aircraft Squadron (VFA)-122 and at the Maintenance Training Unit (MTU) 1038 NAMTRAU Lemoore. Parallel aircrew and maintainer training tracks are to be established at the new East Coast FRS (tentatively VFA-174 which is due to be stood up at NAS Oceana, Virginia, in October 2003) and at MTU 1039 NAMTRAU Oceana as existing aircrew trainers are upgraded and a new Avionics MTS is acquired.

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AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

TABLE OF CONTENTS

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

LIST OF ACRONYMS

A/A	Air-to-Air
A/S	Air-to-Surface
ACS	Advanced Crew Station
AESA	Active Electronically Scanned Array
AMC&D	Advanced Mission Computer and Displays
AME	Automated Maintenance Environment
AMTCS	Aviation Maintenance Training Continuum System
ANAV	Accurate Navigation
AT	Aviation Electronics Technician
ATIR	Annual Training Input Requirement
BIT	Built-In Test
CAI	Computer-Aided Instruction
CANTRAC	Catalog of Navy Training Courses
CBT	Computer-Based Training
CDR	Critical Design Review
CFY	Current Fiscal Year
CIN	Course Identification Number
CISP	Common Integrated Signal Processor
CMI	Computer-Managed Instruction
CNO	Chief of Naval Operations
COTS	Commercial Off-The-Shelf
DAS	Defense Acquisition System
DMI	Depot Maintenance Interservice
DoD	Department of Defense
DT	Developmental Test
DT&E	Developmental Test and Evaluation
DVMC	Digital Video Map Computer
ECP	Engineering Change Proposal
ECR	Electronic Classroom
ECS	Environmental Control System
EDM	Engineering Development Model
EMD	Engineering and Manufacturing Development
EP	Electronic Protection

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

LIST OF ACRONYMS

EW	Electronic Warfare
FCNS	Fiber Channel Network Switching
FMS	Foreign Military Sales
FOT&E	Follow-on Operational Test and Evaluation
FRP	Full Rate Production
FRS	Fleet Readiness Squadron
FTD	Fleet Training Device
FTE	Factory Test Equipment
FY	Fiscal Year
HOL	Higher Order Language
ICW	Interactive Courseware
IETM	Interactive Electronic Training Manual
IFB	Integrated Forebody
IMI	Interactive Multimedia Instruction
IOC	Initial Operational Capability
IOT&E	Initial Operational Test and Evaluation
IRR	Integrated Radar Rack
ISP	Integrated Support Plan
JHMCS	Joint Helmet Mounted Cueing System
LCS	Liquid Cooling System
LRC	Learning Resource Center
LRIP	Low Rate Initial Production
MATMEP	Maintenance Training Management and Evaluation Program
MCMTOMF	Mean Corrective Maintenance Time for Operational Mission Failures
MFHBFA	Mean Flight Hours Between False Alarms
MFHBOMF	Mean Flight Hours Between Operational Mission Failures
MFHBUM	Mean Flight Hours Between Unscheduled Maintenance
MIDS	Multifunctional Information Distribution System
MLDT	Mean Logistics Delay Time
MPT	Manpower, Personnel, and Training
MRIL	Master Repairable Item Listing
MSS	Motion Sensing Subsystem

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

LIST OF ACRONYMS

MTIP	Maintenance Training Improvement Program
MTL	Master Task List
MTS	Maintenance Trainer Set
MTU	Maintenance Training Unit
NA	Not Applicable
NALCOMIS	Naval Aviation Logistics Command Management Information System
NAMT	Naval Aviation Maintenance Trainer
NAMTRAU	Naval Air Maintenance Training Unit
NAMTRA GRU	Naval Air Maintenance Training Group
NAS	Naval Air Station
NATOPS	Naval Air Training and Operating Procedures Standardization
NAVAIR	Naval Air Systems Command
NAVICP	Navy Inventory Control Point
NAWSCL	Naval Air Weapons Station, China Lake
NEC	Navy Enlisted Classification
NLT	No Later Than
NOBC	Navy Officer Billet Code
NTMPS	Navy Training Management and Planning System
NTSP	Navy Training System Plan
OATMS	OPNAV Aviation Training Management System
OEM	Original Equipment Manufacturer
OMA	Organizational Maintenance Activity
OMF	Operational Mission Failure
OPEVAL	Operational Evaluation
OPNAV	Office of the Chief of Naval Operations
OPNAVINST	Office of the Chief of Naval Operations Instruction
OPO	OPNAV Principal Official
ORD	Operational Requirements Document
OT	Operational Test
PCD	Percent Correction Detection
PCFI	Percent Correct Fault Isolation
PCU	Power Conditioning Unit
PDR	Preliminary Design Review
PEDD	Portable Electronic Display Device
PIDS	Positive Identification System

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

LIST OF ACRONYMS

PIP	Product Improvement Program
PMA	Program Manager, Air
PTT	Part Task Trainer
RFT	Ready For Training
RUG	Radar Upgrade
SCS	Software Configuration Set
SE	Support Equipment
SAMT	Simulated Aviation Maintenance Trainer
STE	Special Test Equipment
TAMMAC	Tactical Air Moving Map Capability
TD	Training Device
TECHEVAL	Technical Evaluation
TEMP	Test and Evaluation Master Plan
TFFMS	Total Force Manpower Management System
TOFT	Tactical Operational Flight Trainer
TRPPM	Training Planning Process Methodology
TTE	Technical Training Equipment
TTSARB	Technology Transfer and Security Assistance Review Board
UIC	Unit Identification Code
VF	Fighter Aircraft Squadron
VFA	Fighter/Attack Aircraft Squadron
VX	Air Test and Evaluation Squadron
WRA	Weapon Replaceable Assembly
WSO	Weapons Sensor Officer
WTT	Weapons Tactical Trainer

AN/APG-79 ACTIVE ELECTRONICALLY SCANNED ARRAY RADAR

PREFACE

This Draft Navy Training System Plan (NTSP) was developed to update the Initial NTSP for the AN/APG-79 Active Electronically Scanned Array (AESA) Radar, N-78-NTSP-A-50-0113/I, dated June 2001. This NTSP is a product of the Training Planning Process Methodology (TRPPM), as outlined in Office of the Chief of Naval Operations (OPNAV) publication P-751-3-9-97.

Manpower requirements are generated using current F/A-18E/F activity requirements from the Total Force Manpower Management Systems (TFMMS) and Navy Training Management and Planning System (NTMPS) databases and the F/A-18E/F Transition Schedule.

Where supporting data is incomplete, approximations are made using known F/A-18 Aircraft program information; e.g., where F/A-18E/F Pilot and WSO follow-on training course pipeline information has not been developed or finalized, existing F/A-18 Aircrew course information is used to build a reasonable, approximated projection of F/A-18E/F Aircrew training requirements and student throughput.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. AN/APG-79 Active Electronically Scanned Array (AESA) Radar

2. Program Element. 0204136N

B. SECURITY CLASSIFICATION

1. System Characteristics ..... Secret
2. Capabilities ..... Secret
3. Functions ..... Unclassified

C. MANPOWER, PERSONNEL, AND TRAINING PRINCIPALS

OPNAV Principal Official (OPO) Program Sponsor ..... CNO (N780)

OPO Resource Sponsor..... CNO (N780D1)

Developing Agency (DA)..... NAVAIR (PMA265)

Training Agency (TA) ..... COMLANTFLT (721)
COMPACFLT (N70)
NETC (ETE322)

Training Support Agency (TSA) ..... NAVAIR (PMA205)

Manpower and Personnel Mission Sponsor (MPMS) ..... CNO (N122C1)
NAVPERSCOM (PERS-4, PERS-404)

Director of Naval Training ..... CNO (N00T)

D. SYSTEM DESCRIPTION. The AN/APG-79 Active Electronically Scanned Array (AESA) Radar is the product of a multi-phase program for developing and integrating an advanced AESA Radar into the F/A-18E/F. The program was conceptualized in 1992 and has been active since that date. As indicated in the Operational Requirements Document (ORD) and system specification, the AESA Radar capabilities must not be less than the existing AN/APG-73 radar system in terms of lethality, survivability, maintainability, and reliability. Additionally, AESA will include provision for new technology growth for future threat environments. The F/A-18E/F AESA Radar System is an upgraded version of the currently operational AN/APG-73 Radar System and is part of the F/A-18 Roadmap Program. It is a key element of the F/A-18E/F Block

II Upgrade Program that integrates the Advanced Crew Stations (ACS), Type II Advanced Mission Computer and Displays (AMC&D), Higher Order Language (HOL) software, FCNS, TAMMAC Digital Video Map Computer (DVMC), Accurate Navigation (ANAV), and ECP 6038 Forward Fuselage.

1. Operational Uses. The AN/APG-79 AESA Radar may be employed on any F/A-18E/F mission. It is a coherent, multi-mode radar that provides an all-aspect, "look-down/shoot-down" capability, even under adverse conditions that will allow for time-multiplexed (near simultaneous) operations of the Air-to-Air (A/A), Air-to-Surface (A/S), Ground Mapping, and Electronic Warfare (EW) modes of the radar.

The A/A capabilities will allow the aircrew to detect, track, and engage multiple air-to-air targets with medium and short-range missiles and a 20-mm gun. The AN/APG-79 radar has been designed to enable the aircrew to detect and process targets well before they enter the maximum range of the Super Hornet's air-to-air missiles, allowing missile launch at maximum range.

The A/S functions will allow the aircrew to locate and attack ground targets in all types of weather. The AESA will generate high-resolution ground maps, permitting all-weather, precision bombing and long-range stand-off weapon delivery. The AESA EW functions will include both passive identification of radiating weapon systems detected within the AESA Field of Regard (FOR) and frequency range, and active electronic countermeasures (jamming) for self-protection.

2. Foreign Military Sales. The Technology Transfer and Security Assistance Review Board (TTSARB) Case #99-15 of 18 April 2000 documents agreed U.S. Navy policy on support of sale of F/A-18E/F Aircraft with defined configurations for Foreign Military Sales (FMS). These configurations are subject to approval from the Department of Defense (DoD) Tri-Service Review. The AESA Radar program will conform to these policy limitations in support of FMS, as part of the F/A-18E/F weapon system. Analysis indicates that the following countries may have requirements for F/A-18E/F Aircraft: Australia, Kuwait, Netherlands, Singapore, and the United Kingdom.

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST

1. Developmental Test and Evaluation. The Developmental Test and Evaluation (DT&E) program is scheduled for May 2003 through July 2005 and will be divided into four distinct Developmental Test (DT) periods:

- **DT-IIA.** DT-IIA will primarily focus on demonstrating hardware functionality. Two Lot 26 F/A-18F aircraft and a unique F-19 aircraft will be modified with the AESA Radar at VX-31 China Lake for DT/OT. Data will be collected during the latter portion of DT-IIA using a flight release version of AESA Test Tape #1.

- **DT-IIB Phase 1.** DT-IIB Phase 1 will primarily focus on maturing the AESA hardware, software functionality, and sub-build content. In addition to AESA testing, DT-IIB Phase 1 will also include the Environmental Control System (ECS), fuel management systems, and propulsion flight tests.

- **DT-IIB Phase 2.** DT-IIB Phase 2 will initiate testing of the Software Configuration Set (SCS) H-3 Mission Computer software program. Electromagnetic Interference, Susceptibility, and Compatibility will be performed on Lot 26 Engineering Change Proposal (ECP)-6038/AESA aircraft.

- **DT-IIC.** DT-IIC will demonstrate the full functionality of the AESA Radar. Full weapons employment functionality will also be demonstrated. The Technical Evaluation (TECHEVAL) summary follows immediately after completion of DT-IIC.

Each major DT period (DT-IIA, B, and C) will be followed by a separate Operational Test (OT) period. OT-IIA and B will be a combined DT/OT, with a dedicated period of independent OT to allow an applicable and credible assessment of expected final performance. OT-IIC will be a complete Operational Evaluation (OPEVAL). Currently, DT/OT is scheduled for the period May 2003 through July 2005 and OPEVAL is tentatively scheduled for the period January through July 2006. See Part V of this NTSP for other AESA schedule dates.

2. Operational Test and Evaluation. Operational Test and Evaluation of the AN/APG-79 AESA Radar will be conducted in two parts, initial and follow-on.

a. Initial Operational Test and Evaluation. Initial Operational Test and Evaluation (IOT&E) will be conducted at Naval Air Weapons Station, China Lake (NAWSCL) California, in three phases. The system will be operated and maintained by USN Air Test and Evaluation squadron.

Initial Operational Test and Evaluation Phases	
OT-IIA	This phase is intended to support recommendations for continued future program development.
OT-IIB	
OT-IIC OPEVAL	This phase is intended to support a fleet introduction recommendation.

b. Follow-on Operational Test and Evaluation. Follow-on Operational Test and Evaluation (FOT&E) will be conducted to verify the operational suitability and effectiveness of the production model AESA Radar and will include OT-III and OT-IV as required. OT-IIA, OT-IIB, and OT-IIC will be conducted at various open-air ranges to include NAWSCL, and

various laboratory facilities to include Boeing Avionics Integration Center (AIC), Boeing Flight Simulator facility, and the Radar Systems Integration Laboratory in El Segundo, California.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The AESA will replace the AN/APG-73 in the F/A-18E/F Aircraft. The AESA Radar is planned for incorporation in new production F/A-18E/F Aircraft, beginning with the last eight aircraft of Lot 27. The Navy budgetary plan provides for the purchase of AESA Radar systems for 277 new production and 136 retrofit F/A-18E/F Aircraft, for a total of 413 systems.

The AN/APG-79 AESA entered Engineering and Manufacturing Development (EMD) in February 2001, a year after new start approval. In November 2002, Raytheon conducted the first public demonstration of a fully integrated AN/APG-79 AESA system in a laboratory at its El Segundo facility. Two AN/APG-73 equipped Lot 26 aircraft will be fitted with EMD version AESA systems to support DT/OT at China Lake. A third, unique aircraft (dubbed the "F-19") will also be equipped with an EMD version AESA system to support DT/OT, including "first flight" which is currently scheduled for June 2003. There is no plan to retrofit these three aircraft with new production AESA Radar systems in the future. In all, seven complete and one partial EMD version AESA systems will be built. These are not included in the previously mentioned 413 production AESA systems.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The AESA Radar will be the primary search/track and weapons control radar for the F/A-18E/F Aircraft. The AESA Radar may be employed on any F/A-18E/F mission to include Anti-Air Warfare, Strike Warfare, Anti-Surface Ship Warfare, Close Air Support, Tactical Air Control, Reconnaissance, and Near Simultaneous Missions.

As compared with the AN/APG-73 Radar Upgrade (RUG) Phase I and Phase II upgrades, the AESA Radar will provide increased air-to-air detection/track ranges, air-to-ground targeting, longer launch ranges for stand-off weapons, and enhanced capability against advanced threats.

2. Physical Description. The AESA Radar avionics include thirty-one Weapon Replaceable Assemblies (WRAs). There are no components designated as Shop Replaceable Assemblies (SRAs) as all line-removable/replaceable sub-assemblies (including all racks, sub-racks, sealed modules, and antenna) are considered to be separate WRAs.

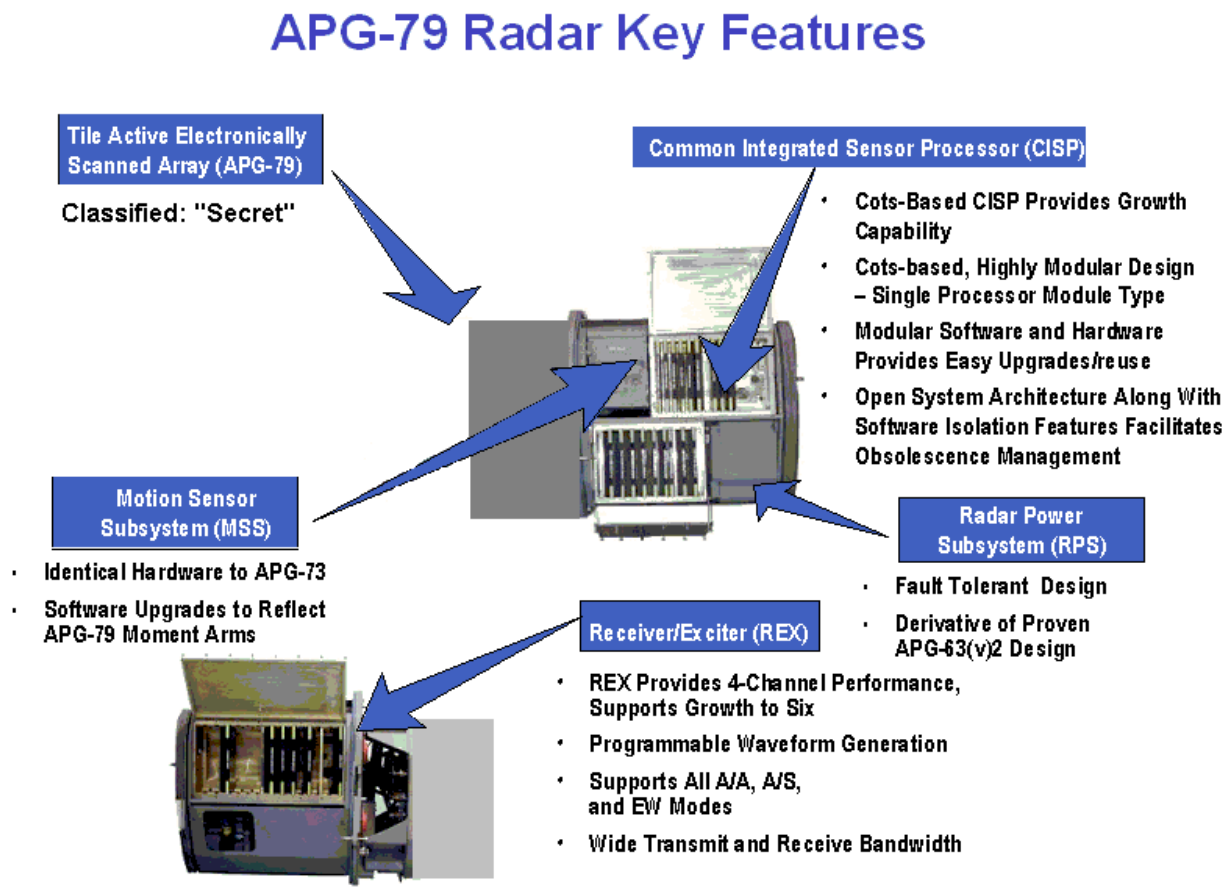


Figure I-1. AN/APG-79 AESA Features

The AESA Radar system is supported by Integrated Radar Rack (IRR). This WRA supports and provides interconnectivity for all other system WRAs. Mounted on the IRR are:

- **Wide Band Antenna** (classified "Secret"), mounted to the front of the IRR along with the Narrow Band Switch Matrix line replaceable subassembly
- **Motion Sensing Subsystem (MSS)**
- **Power Conditioning Unit (PCU)**
- **Three "Sub-Racks"** which contain a combined total of 24 installed modules (with spare slots left for future expanded capability). Each sub-rack can be opened to access the WRA modules within for maintenance purposes. These sub-racks are:

– **Radar Power Subsystem (RPS) Sub-Rack** (located lower section)

– **Receiver Exciter (REX) Sub-Rack** (located upper right section)

– **Common Integrated Sensor Processing (CISP) Sub-Rack** (located upper left section)

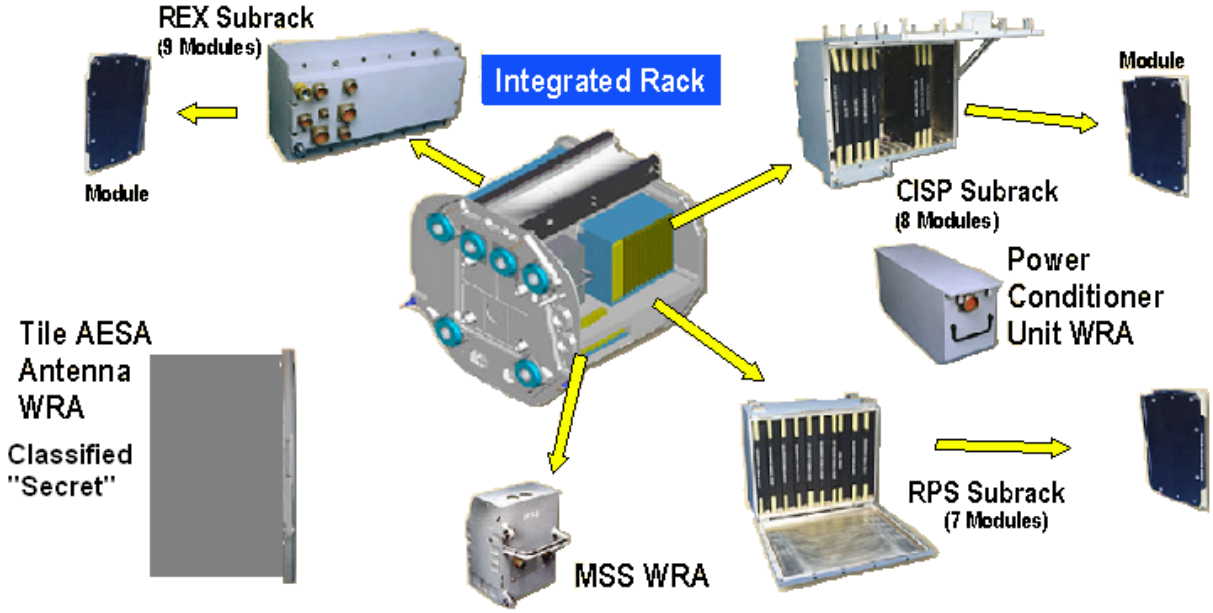


Figure I-2. AN/APG-79 AESA System Components and Placement

AN/APG-79 AESA RADAR SYSTEM WRAs	
QUANTITY	**WRA**
1	Integrated Radar Rack (IRR)
1	AESA Antenna
1	Motion Sensing System (MSS)
1	Power Conditioning Unit (PCU)
3	Sub-racks (1 each for: REX, CISP, RPS)
9	Receiver Exciter (REX) modules
7	Radar Power Subsystem (RPS) modules
8	Common Integrated Sensor Processor (CISP) modules
31	**Total WRAs**

The wide-band radome is attached on a slide rail and must be unlocked and slid forward in order to access the radar system for maintenance. With the exception of the antenna, all system WRAs are accessible from one side or the other of the main rack. Access is gained when the rack/radome is extended out of the aircraft nose barrel on built-in slide rails. The radome must be detached in order to remove or replace the antenna WRA. The initial AESA Radar set design weight is less than 720 pounds. Other ancillary equipment in an AESA-equipped F/A-18 includes the wideband radome, Fiber Channel Network Switching (FCNS) and additional heat exchangers in the enhanced ECS.

3. New Development Introduction. The initial AN/APG-73 RUG Phase I developed key radar receiver and processor subsystems to increase hardware memory and throughput, and implemented more effective Electronic Protection (EP). The AN/APG-73 RUG Phase II incorporated additional components required to provide very high-resolution ground maps. The RUG Phase III, referred to as AESA Phase I, calls specifically for the incorporation of the AESA Radar into the F/A-18E/F Aircraft. The AESA will be introduced to the Navy as a Product Improvement Program (PIP). The Navy will have a mixed fleet of F/A-18E/F Aircraft, some equipped with the AN/APG-73 and the rest with the AN/APG-79 AESA Radar.

4. Significant Interfaces. The AESA will interface with numerous systems on the F/A-18E/F Aircraft including the AN/ALR-67(V)3, AN/ALE-50/55, Joint Helmet Mounted Cueing System (JHMCS), Positive Identification System (PIDS), Multifunctional Information Distribution System (MIDS), AMC&D, and ACS.

The AESA system consists of structural and avionics upgrades to the F/A-18E/F that reduce vulnerability and enhance survivability. Air vehicle sub-systems impacted include: forward and aft Crew Stations, Fiber Channel Networks (FCNs), AMC&D, ECS, Liquid Cooling System (LCS), Integrated Forebody (IFB), ANAV, electrical systems, and propulsion systems.

5. New Features, Configurations, or Material. The AN/APG-79 AESA replaces the conventional mechanically scanned antenna with a radar beam delivered by a solid-state antennae array that can be steered at close to the speed of light. This rapid beam scan feature improves performance dramatically, and because the array is solid state, mechanical breakdowns will be virtually eliminated. Following the laboratory development phase, the radar will be extensively tested at NAVAIR China Lake beginning in 2003.

Note: The AESA Radar antenna's characteristics and capabilities are classified Secret. Security procedures for maintaining, transporting, and storing the antenna are under development.

H. CONCEPTS

1. Operational Concept. The AESA will be operated by Navy F/A-18E/F Pilots and Weapons Sensor Officers (WSO) with Navy Officer Billet Code (NOBC) 1311 and 1321, respectively, at ashore and afloat activities. The WSO position is required only in the two-seater F/A-18F and is not a requirement for F/A-18E squadrons.

2. Maintenance Concept

a. Organizational. It is currently expected that the AESA will be maintained under a two-level, organizational to depot maintenance concept. A Life Cycle Cost (LCC) and support concept trade-off analyses is being conducted to determine the lowest cost support solution. Weapon System maintenance will be performed by organizational level activities with retrograde WRAs being sent to the depot level activity for repair or condemnation as indicated by the Source, Maintenance, and Recoverability (SM&R) codes. At a minimum, the squadron will be able to isolate, remove, and replace faulty components down to the WRA. The AESA will be maintained at the organization by Navy Aviation Electronics Technicians (AT) with Naval Enlisted Classification (NEC) codes 8341 (Career) and 8841 (Initial) assigned to Navy F/A-18E/F Aircraft squadron Work Center 210 (Avionics). Repairs beyond squadron maintenance capabilities will be performed at the depot.

(1) Preventive Maintenance. In accordance with the two-level maintenance concept, preventive maintenance functions performed by maintainers will be limited to pre- and post-operational inspection, system Built-In Test (BIT)/self-test, cleaning and corrosion control. Depreservation of Ready for Issue (RFI) spares will be performed in accordance with the manufacturer's recommendations and applicable ESD precautions prior to installation. Preservation for shipment will be performed by the Supply activity responsible for returning the faulty WRA to depot for repair.

(2) Corrective Maintenance. Corrective Maintenance is built around the BIT/self-test program that automatically indicates the operational condition of the system. The aircraft self-test program isolates faults to a defective WRA. Upon verification of the fault, the defective WRA is removed and a Ready For Issue (RFI) asset from Navy spares is installed and again checked. BIT/self-test operations and software loading are the only organizational level maintenance actions performed with power applied to the AESA system. No system or WRA adjustments will be required. All other maintenance actions will be performed with power removed from the AESA system.

b. Intermediate. Preliminary Level of Repair Analysis (LORA) results indicate that no intermediate level maintenance is required. Currently, AESA system development has not provided for AESA component design to include external test points or interfaces adequate to support intermediate level servicing and repair.

c. Depot. Originally, the AESA system was developed for an organizational level to OEM depot level maintenance concept; however, AESA is currently designated as a CORE System, and CORE law, as required by Title 10, USC 2464, dictates that there be an organic depot. The DMI study completed in August 2002 designated NADEP North Island as the Navy Depot Source of Repair for AN/APG-79 Radar, with the depot stand-up planned for No Later Than (NLT) 2010. Depot Factory Test Equipment (FTE) and Special Test Equipment (STE) analysis began in November of 2002 and is scheduled to be complete by June 2003. It is anticipated that FTE/STE procurement will begin in FY05.

Until an organic depot capability is established (NLT 2010), the manufacturer, Raytheon Corporation, will perform repair, calibration, and overhaul of AN/APG-79 AESA components turned in to the supply system that are beyond the repair capabilities of the organizational level maintenance activity. The local Navy Supply Unit will prepare the failed WRA for shipment to Raytheon using the Navy Inventory Control Point (NAVICP) Master Repairable Item Listing (MRIL) for delivery to one of the following repair locations:

COMPONENT	REPAIR LOCATION
Antenna	Raytheon - El Segundo, California
CISP	Raytheon - El Segundo, California
REX	Raytheon - Forest, Mississippi
RPS	Raytheon - Forest, Mississippi
PCU	Raytheon - Forest, Mississippi
IRR	MechTronics - Phoenix, Arizona
MSS	Honeywell - Clearwater, Florida

In order to stand up an organic depot repair capability, Raytheon will provide the quantity and quality of technical data (engineering drawings, parts placement diagrams, test requirements, etc.) needed to support an organic intermediate level repair capability.

d. Interim Maintenance. A fully organic and sustainable organizational level maintenance capability will support the AESA system at Initial Operational Capability (IOC). Boeing, Raytheon, and the Navy will provide personnel for support of the AESA until IOC. Further contractor support (if required) will be funded by a separate contract. The AESA Navy Support Date (NSD) will occur no later than four years after IOC.

e. Life Cycle Maintenance Plan. This paragraph will be updated in future revisions of this NTSP as information becomes available.

3. Manning Concept. The AESA Radar system will be operated exclusively by existing F/A-18E/F aircrew personnel. In addition to a Pilot (NOBC 1311), the two-seater F/A-18F includes a WSO (NOBC 1321). Maintenance of the AESA will be performed by currently assigned ATs holding NEC 8841 or 8341. The manpower requirements for the AESA are well within the capabilities of the existing Navy enlisted rating structure. There are no quantitative changes to the current squadron manpower requirements. However, training activity instructor requirements may increase temporarily as the new system is phased in.

a. Estimated Maintenance Man-Hours per or Flight Hour. The suitability thresholds in the following table are the minimum installed performance requirements the AESA Radar must contractually satisfy.

INSTALLED SUITABILITY REQUIREMENTS		
CAPABILITY	**THRESHOLD**	**OBJECTIVE**
Operational Availability (A_o) (Notes 1, 6) (KPP)	95 %	98 %
Reliability (Notes 2, 6): Mean Flight Hours Between Operational Mission Failures-System (MFHBOMF)	62 Flight Hours	180 Flight Hours
Maintainability (Notes 3, 6): Mean Corrective Maintenance Time for Operational Mission Failures (MCMTOMF)	1.5 Hours	1.0 Hour
Built-in-Test Performance (Notes 4, 6) Percent Correction Detection (PCD) Percent Correct Fault Isolation (PCFI)	 85 % 85 %	 90 % 90 %
Mean Flight Hours Between False Alarms (MFHBFA) (Notes 5, 6)	185 Flight Hours	350 Flight Hours
Mean Flight Hours Between Unscheduled Maintenance (MFHBUM) (Note 6)	20 Flight Hours	30 Flight Hours

Note 1: A_o is defined as Up-time divided by the sum of Up-time plus Down-time. A_o is valid when AESA is operated in an operational mission scenario. Mean Logistics Delay Time (MLDT) is a subset of Down-time, and for the purposes of this calculation MLDT = 2.0 hours. The 2.0 hours MLDT allows for the average awaiting supply time this system is expected to achieve in the fleet (i.e., replacements should be procured to support a 2.0 hour MLDT after the system passes OT). Down-time also includes time spent troubleshooting and repairing the system. All other time is Up-time.

Note 2: MFHBOME equals the Total System Flight Hours divided by the Total Number of Operational Mission Failures (OMF). OMF are failures that preclude successful completion of the mission. System failures include hardware failures and/or software faults that occur in the AESA Radar. Multiple incidents of the same OMF are only counted once per flight.

Note 3: MCMTOMF is the average elapsed corrective maintenance time required to repair all OMFs. It includes time for maintenance preparation, fault isolation, location, onboard parts procurement, and fault correction, as well as follow-up checkout time. Offboard logistics delay time and time required to gain access to the system is not included.

Note 4: BIT Definitions:

- PCD equals the number of correct detections divided by the total number of confirmed faults times 100 (to express quotient as a percent).
- PCCFI equals the number of correct fault isolations (to a faulty WRA) divided by the number of correct detections times 100 (to express the quotient as a percent).

Note 5: MFHBFA is the total number of flight hours divided by the total number of false alarms. False alarms are faults identified by Maintenance Status Panel (MSP) BIT codes that indicate an apparent need for maintenance later confirmed at the organizational or depot level to be erroneous, i.e., no real failure existed. If the same erroneous BIT indication occurs multiple times in one flight, it only counts as one occurrence for purposes of satisfying this requirement.

Note 6: Small Sample Size - During DT and/or OT, it may not be feasible to fly enough hours to develop a statistically meaningful database for some requirements. Use of pre-faulted components in Maintenance Demonstrations (M-DEMO), BIT maturation process, and/or results of laboratory reliability testing will be considered as a means of resolving problems that arise from small sample size conditions.

a. Proposed Utilization. The AESA operating requirement hours will be determined by the F/A-18E/F Aircraft utilization rates found in the squadron Required Operational Capabilities/Projected Operation Environment (ROC/POE) documents.

b. Recommended Qualitative and Quantitative Manpower Requirements. This NTSP projects manpower requirements in terms of officer and enlisted billets using those activities that have already transitioned to the F/A-18E/F as models for F/A-18E, F/A-18F, or dual E/F (e.g., the FRS) activities.

TYPE ACTIVITY	REQUIRED BILLET	QUANTITY
F/A-18E – VFA	1311 ATC 8341 AT1 8341 AT1 8341/6701 AT2 8341 AT3 8841 ATAN 8841	19 1 2 1 5 5 9

TYPE ACTIVITY	REQUIRED BILLET	QUANTITY
F/A-18F – VFA	1311 1321 ATC 8341 AT1 8341 AT1 8341/6701 AT2 8341 AT3 8841 ATAN 8841	20 18 1 2 1 5 5 8
F/A-18E/F – FRS	1312 1322 ATC 8341 AT1 8341 AT2 8341 AT3 8841 ATAN 8841	65 31 2 6 9 10 15

(1) Aircrew. It is expected that Navy F/A-18E/F squadrons will have some aircraft with the AN/APG-73 Radar installed and some aircraft with the AN/APG-79 AESA Radar, Pilots and WSOs will have to be trained to operate both systems. The deployment of the AESA Radar system is not expected to significantly add to operator tasks nor is it expected to generate any additional operator manpower requirements.

(2) Maintenance. Maintenance of the AESA will be performed by currently assigned ATs holding either NEC 8841 or 8341. As with the aircrew, maintenance technicians will be required to have training on both the AN/APG-73 and the AN/APG-79 AESA systems. The deployment of the AESA Radar system is not expected to generate any additional maintenance manpower requirements.

4. Training Concept. The AESA training program will consist of initial and follow-on training for both operator and maintenance personnel. The contractor, the Boeing Company, will provide system training to operators and maintainers until Navy Fleet Readiness Squadrons (FRS) and Naval Air Maintenance Training Units (NAMTRAU) become Ready for Training (RFT) for AN/APG-79 AESA-equipped F/A-18E/F systems.

Follow-on aircrew training will be conducted at the currently operational West Coast F/A-18E/F FRS, VFA-122 NAS Lemoore, and at the future East Coast F/A-18E/F FRS, VFA-174, NAS Oceana, Virginia. (VFA-174 activation is planned for October 2003, teaching the AN/APG-73).

Follow-on maintenance training will be conducted at MTU 1038 NAMTRAU Lemoore, where F/A-18E/F training is ongoing and at MTU 1039 NAMTRAU Oceana (anticipated RFT date is second quarter FY05).

a. Initial Training. Initial training is being developed for delivery to two separate student groups, those involved in DT/OT (referred to as "Cadre I") and fleet users (referred to as "Cadre II").

(1) Cadre I. In support of DT/OT, scheduled to begin in March 2003, the contractor has developed initial AESA operator and maintainer training to support Navy Test and Evaluation aircrew and maintenance personnel (Cadre I) stationed at VX-9 and at VX-31 China Lake. Aircrew training will be conducted at Boeing's flight simulator at its St. Louis, Missouri, facility, while maintenance training will be conducted by Boeing at VX-9 and VX-31

(2) Cadre II. The contractor will also develop and conduct Cadre II initial training for FRS Instructors, NAMTRAU Instructors, and an initial cadre of Fleet personnel. The training for Navy FRS aircrews will reflect the new operating procedures, features, functions, and aircraft integration characteristics of the AESA. This training is currently planned to begin in April 2005.

b. Follow-on Training. Following-on training will consist of both aircrew training (to be conducted at the FRS) and maintenance training (to be conducted by the NAMTRAU). It is anticipated that operator and maintenance training will be similar to the existing AN/APG-73 training with curriculum, maintenance trainers, and simulators modified to reflect AESA requirements. The maintenance curriculum will utilize Maintenance Trainer Sets (MTS), CBT, and actual aircraft to convey the learning objectives. The AESA operator and maintenance curricula will be delivered by Boeing in digital format for integration into existing F/A-18E/F courses prior to the planned Ready for Training (RFT) date in second quarter FY05. The Navy will have a mixed fleet of aircraft equipped with both AN/APG-73 and AN/APG-79 AESA Radar and, therefore, training must support both systems.

Information below showing Navy aircrew training Course Identification Numbers (CINs) assigned for the F/A-18E/F Pilot and WSO training pipelines is taken from the OPNAV Aviation Training Management System (OATMS), the Catalog of Navy Training Courses (CANTRAC), the Navy Training Management and Planning System (NTMPS) and the F/A-18 Aircraft NTSP. In the case of some F/A-18E/F-specific aircrew training pipeline or pipeline component courses, CINs may not have been assigned. These aircrew courses will use existing F/A-18 courseware that has modified to contain F/A-18E/F-related training, including that for the AESA system. As this information changes and further details become available, it will be included in updates to this document.

It is assumed that all aircrew and maintainer training track course identification will continue to follow the Pipeline/Component Course format with one or more component courses (FRS Squadron/MTU Indoctrination, Safety, etc.) assigned to each track or "pipeline." For simplicity, all courses in this document are organized in this manner (and not necessarily as found in OATMS or CANTRAC).

All current and planned organic Navy training tracks are shown in this document having CINs beginning with a geographic designator. Tracks taught on the East Coast at either the FRS (future) or the NAMTRAU at Oceana, will have CINs beginning with a "D" while those taught on the West Coast at either the FRS or the NAMTRAU at Lemoore will have CINs beginning with an "E." Training track course information provided in Part I of this document provides a single track description for both East and West coast locations (for example, "D/E-2A-062X" means the information applies to both D-2A-062X and to E-2A-062X) as it is assumed that the training pipeline developed for one location will mirror the other.

(1) F/A-18E/F Aircrew Training. The aircrew training syllabus will incorporate the use of Aircrew Simulators (Tactical Trainers), Computer-Based Training (CBT), and actual aircraft flights to ensure Pilot and Weapons Sensor Officer (WSO) proficiency. VFA-122 began F/A-18E/F Fleet Replacement Pilot Validation Training in November 1999. WSO Validation Training began March 2000. Both achieved RFT in October 2000 and will require AESA-specific information added to the existing AN/APG-73-related material. The following pages document eight training courses (Pilot Categories 1-4 and WSO Categories 1-4) that are specifically for F/A-18E/F operator/aircrew.

Title	**F/A-18E/F Fleet Replacement Pilot Category 1 Pipeline**
CIN	E-2A-061X
Model Manager....	VFA-122
Description.....	This pipeline provides training to the first tour F/A-18E/F Pilot, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Upon completion, the student will be able to perform the duties of an F/A-18E/F Pilot in a squadron environment.
Location	VFA-122, NAS Lemoore
Length	257 days
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier	1311
TTE/TD.....	° TD-01 Weapons Tactical Trainer (WTT) ° TD-02 Part Task Trainer (PTT) ° TD-03 Tactical Operational Flight Trainer (TOFT)

Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance – Secret

Title	**F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline**
CIN	D/E-2A-062X
Model Manager....	VFA-122
Description.....	This pipeline provides training to the second tour F/A-18E/F Pilot, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F Pilot in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length.....	215 days
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier.....	1311
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

Title	**F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline**
CIN	D/E-2A-063X
Model Manager....	VFA-122
Description.....	This pipeline provides advanced training to the F/A-18E/F Pilot, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F Pilot in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length.....	169 days
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier.....	1311
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

Title	**F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline**
CIN	D/E-2A-064X
Model Manager....	VFA-122
Description.....	This pipeline provides training to the senior F/A-18E/F Pilot, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F Pilot and of a Naval Aviation Training and Operating Procedures Standardization (NATOPS) Instructor in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length.....	36 days
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier.....	1311
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

Title	**F/A-18E/F Combat Capable Weapons Sensor Officer Category 1 Pipeline**
CIN	D/E-2D-181X
Model Manager....	VFA-122
Description.....	This pipeline provides training to the first tour F/A-18E/F WSO, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F WSO in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length.....	259 days
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier.....	1321
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

Title	**F/A-18E/F Combat Capable Weapons Sensor Officer Category 2 Pipeline**
CIN	D/E-2D-182X
Model Manager....	VFA-122
Description.....	This pipeline provides training to the second tour F/A-18E/F WSO, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F WSO in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length.....	238 days
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier.....	1321
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

Title	**F/A-18E/F Combat Capable Weapons Sensor Officer Category 3 Pipeline**
CIN	D/E-2D-183X
Model Manager....	VFA-122
Description.....	This pipeline provides advanced training to the F/A-18E/F WSO, including: ° Flight Training ° Crew Tactics ° Crew Safety and Egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F WSO in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length.....	154 days (estimate)
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier.....	1321
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

Title	**F/A-18E/F Combat Capable Weapons Sensor Officer Category 4 Pipeline**
CIN	D/E-2D-184X
Model Manager....	VFA-122
Description.....	This pipeline provides training for the senior F/A-18E/F WSO, including: ° Flight Training ° Crew Tactics ° Crew safety and egression ° Communications and Navigation ° Armament Systems Upon completion, the student will be able to perform the duties of an F/A-18E/F WSO and of a NATOPS Instructor in a squadron environment.
Locations	° VFA-122, NAS Lemoore ° VFA-174, NAS Oceana (October 2003)
Length	28 days (estimate)
RFT date	Currently available at VFA-122 AESA will be added in second quarter FY05.
Skill identifier	1321
TTE/TD.....	° TD-01 WTT ° TD-02 PTT ° TD-03 TOFT
Prerequisite	° E-2A-0610, Survival, Evasion, Resistance, and Escape ° Designated Service Group I Naval Aviator ° Security Clearance - Secret

(2) Maintenance Training. Organizational level maintenance training is taught at "C" Schools that provide separate *Initial* and *Career* training courses. *Initial* "C" School training is intended for entry-level students in paygrades E-4 and below. *Career* "C" School training is provided to organizational-level personnel, E-5 and above, to enhance skills and knowledge within their field. At this time, intermediate maintenance training is not planned for AESA.

The following courses had been developed specifically for organizational level F/A-18E/F maintainers. Baseline information is derived from course descriptions included in the F/A-18 Aircraft NTSP, except for the Avionics Differences Data course, described below, which is not included in that document. As mentioned earlier, F/A-18E/F squadrons will have

both AN/APG-73 Radar and AN/APG-79 Radar-equipped aircraft to maintain and these courses will be modified to incorporate AN/APG-79 specific training.

Title	**F/A-18E/F Avionics Systems Difference Data Pipeline**
CIN	D/E-102-0625
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	This pipeline provides training to the second tour Aviation Electronics Technician, including: ° Aircraft Familiarization ° Avionics Familiarization ° Multipurpose Display Group ° Tactical Air Moving Map Capability ° Maintenance Data Reporting System ° Publications and Safety Procedures Upon completion, the student will be able to perform organizational maintenance on the F/A-18E/F avionics systems in a squadron environment under limited supervision.
Locations	° MTU 1038 NAMTRAU Lemoore ° MTU 1039 NAMTRAU Oceana (future)
Length.....	19 days
RFT date	Currently available at MTU 1038 AESA will be added in second quarter FY05.
Skill identifier.....	AT 8341 (E-5 through E-7)
TTE/TD.....	° TD-05 Avionics MTS ° F/A-18E/F Avionics Systems
Prerequisite	NEC 8842 or 8342

Title	**F/A-18E/F Avionics Systems (Initial) Organizational Maintenance Pipeline**
CIN	D/E-102-0623
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	This pipeline provides training to the first tour Aviation Electronics Technician, including: ° Fire Control Systems ° Communications and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform entry-level organizational maintenance on the F/A-18E/F avionics systems in a squadron environment under direct supervision.
Locations	° MTU 1038 NAMTRAU Lemoore ° MTU 1039 NAMTRAU Oceana (future)
Length.....	95 days
RFT date	Currently available at MTU 1038 AESA will be added in second quarter FY05.
Skill identifier.....	AT 8841 (E-1 through E-4)
TTE/TD.....	° TD-05 Avionics MTS ° F/A-18E/F Avionics Systems
Prerequisite	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician O-Level Class A1

Title	**F/A-18E/F Avionics Systems (Career) Organizational Maintenance Pipeline**
CIN	D/E-102-0624
Model Manager....	MTU 1038 NAMTRAU Lemoore
Description.....	This pipeline provides training to the second tour Aviation Electronics Technician, including: ° Fire Control Systems ° Communications and Navigation Systems ° Identification System ° Countermeasure System ° Test and Support Equipment ° Publications and Safety Procedures Upon completion, the student will be able to perform organizational maintenance on the F/A-18E/F avionics systems in a squadron environment under limited supervision.
Locations	° MTU 1038 NAMTRAU Lemoore ° MTU 1039 NAMTRAU Oceana (future)
Length.....	32 days
RFT date	Currently available at MTU 1038 AESA will be added in second quarter FY05.
Skill identifier.....	AT 8341 (E-5 through E-7)
TTE/TD.....	° TD-05 Avionics MTS ° F/A-18E/F Avionics Systems
Prerequisite	° E-102-0623, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance ° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician O-Level Class A1

c. Student Profiles

SKILL IDENTIFIER	PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS
1311	° Q-2A-0007, T-45 Strike Flight Training ° Q-2A-0005, Intermediate Strike Flight Training ° Q-2A-0006, Advanced Strike Flight Training ° E-2D-0032, Survival, Evasion, Resistance, and Escape Training ° J-495-0413, Shipboard Aircraft Firefighting
1321	° E-2D-0032, Survival, Evasion, Resistance, and Escape Training ° Designated Service Group I Naval Aviator
AT 8841	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician O-Level Class A1
AT 8341	° C-100-2020, Avionics Common Core Class A1 ° C-100-2018, Avionics Technician O-Level Class A1 ° D/E-102-0623, F/A-18E/F Avionic Systems (Initial) Organizational Maintenance Pipeline

d. Training Pipelines. F/A-18E/F Pilot and WSO training tracks and component courses are still being developed. In both instances, formal CINs may not yet be assigned to the course, and temporary ones are provided in this document. No new maintenance training pipeline courses will have to be developed; however, AESA-specific information will have to be incorporated into the existing F/A-18E/F maintenance training tracks.

I. ONBOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. Current planning is to adopt the Aviation Maintenance Training Continuum System (AMTCS) concepts to replace the Maintenance Training Improvement Program (MTIP).

b. Aviation Maintenance Training Continuum System. AMTCS will provide career path training to the Sailor or Marine from their initial service entry to the end of their military career. AMTCS concepts will provide an integrated system that will satisfy the training and administrative requirements of both the individual and the organization. The benefits will be manifested in the increase effectiveness of the technicians and the increased efficiencies of the management of the training business process. Where appropriate, capitalizing on technological

advances and integrating systems and processes can provide the right amount of training at the right time, thus meeting the CNO's mandated "just-in-time" training approach.

Technology investments enable the development of several state-of-the-art training and administrative tools: Interactive Multimedia Instruction (IMI) for the technicians in the Fleet in the form of Interactive Courseware (ICW), with Computer Managed Instruction (CMI), and Computer Aided Instruction (CAI) for the schoolhouse.

Included in the AMTCS development effort is the Aviation Maintenance Training Continuum System - Software Module, which provides testing [Test and Evaluation], recording [Electronic Certification Qualification Records], and a Feedback system. The core functionality of these AMTCS tools are based and designed around the actual maintenance-related tasks the technicians perform, and the tasks are stored and maintained in a Master Task List (MTL) data bank. These tools are procured and fielded with appropriate Commercial-Off-The-Shelf (COTS) hardware and software, i.e., Fleet Training Devices (FTD) - Laptops, PCs, Electronic Classrooms (ECR), Learning Resource Centers (LRC), operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N789H), AMTCS concepts are to be implemented and the new tools integrated into the daily training environment of all participating aviation activities and supporting elements. AMTCS will serve as the standard training system for aviation maintenance training within the Navy and Marine Corps, and is planned to supersede the existing MTIP and Maintenance Training Management and Evaluation Program (MATMEP) programs.

2. Personnel Qualification Standards. This section will be updated in future revisions of this NTSP as information becomes available.

3. Other Onboard or In-Service Training Packages. This section will be updated in future revisions of this NTSP as information becomes available.

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers

CONTRACT NUMBER	MANUFACTURER	ADDRESS
N0019-01-C-0074	Raytheon Corporation	2000 East El Segundo Boulevard P.O. Box 902 El Segundo, CA 90245-0902

2. Program Documentation. The following program documentation applies:

- The Draft Acquisition Logistics Support Plan (dated December 28, 2000) has been distributed and applies to all phases of the AESA system.
- The unclassified portion of the Operational Requirements Document (ORD) was approved and distributed. The classified ORD 568-58-00 was signed 13 November 2000.
- The Test and Evaluation Master Plan (TEMP) 0201-07 was approved 16 January 2001.
- The Integrated Support Plan (ISP) N00019-01-C-0074 dated April 2001 has been distributed.

3. Technical Data Plan. All technical data will be in sufficient detail to supplement existing maintenance manuals and will be procured during the System Development and Demonstration phase of the DAS. Digital format technical manuals will be provided for support of IOC. They will include detailed instructions for items such as system installation and checkout procedures, operating and maintenance instructions, and inspection and troubleshooting procedures.

Publications will be in the form of Interactive Electronic Technical Manuals (IETM) running on Portable Electronic Display Devices (PEDD) and integrated with the F/A-18 AME concept.

A certain quantity and quality of data are required for AESA system supportability, such as drawings, parts placement diagrams, and test requirements, etc. Currently the technical data the OEM is willing to provide is not useable for IETMs or training development.

4. Test Sets, Tools, and Test Equipment. Special tools and test equipment will be minimized. The AESA is designed to minimize requirements for Common and Peculiar Support Equipment to the maximum extent. It is currently envisioned that special SE requirements for the AESA system will consist four-pieces of Peculiar SE to support Radome and Array removal at organizational level. This Radar Radome Removal Fixture is shown in Figure I-3 (see below). Prototype assets will be used until the design is complete and documentation reviewed prior to beginning procurement. The Radome Removal Fixture is being with built-in adaptability and flexibility to make it handle a number of tasks, rather than require separate SE for each task. Four fixtures, one for each FRS and each MTU, will be required for training.

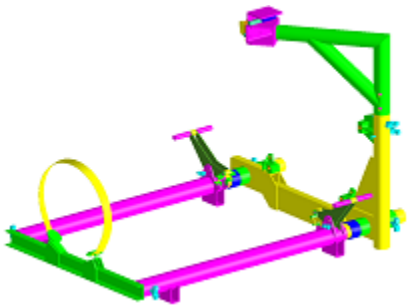


Figure I-3. Prototype Radar Radome Removal Fixture

The AESA Radar will have the capability to be boresighted (i.e., align the radar's longitudinal axis with that of the aircraft) using current F/A-18E/F AN/APG-73 boresight equipment or without the use of external boresight equipment.

5. Repair Parts. A spares management effort will be undertaken to control analysis, acquisition, delivery, documentation, and repair activities for AESA Radar where applicable. Replacement parts will be provisioned by the NAVICP item managers and the OEM. The Material Support Date (MSD) for AESA is planned for late 2007.

Fielding the acquired system requires that certain spares be procured to support the program while the system configuration is being established. An interim spares inventory and budget have been identified for procurement; however, the interim spares are not yet on contract.

6. Human Systems Integration. The AESA system will perform its functions within existing operator and maintainer manpower skill levels and occupational specialties. All maintenance and operational training will be kept within existing skill identifier requirements. Information on the Human Systems Integration plan will be included in future updates to this document as details become available.

K. SCHEDULES

1. Installation and Delivery Schedules

INSTALLATION SCHEDULE (NUMBER OF AIRCRAFT)

F/A-18 MODEL – ACTIVITY/LOCATION	LOT	DELIVERY START	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
[E/F] VFA-122 (FRS) Lemoore	-	-		-						
[E] VFA-115 Lemoore CVW-14	23	Jan 01	12							

F/A-18 MODEL – ACTIVITY/LOCATION	LOT	DELIVERY START	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
[F] VFA-14 Lemoore CVW-11	24	Dec 01		12						
[F] VFA-41Lemoore CVW-11	24	Dec 01		14						
[F] VFA-102 Lemoore CVW-9	23/24	May 02		14 [2]						
[E] VFA-137 Lemoore CVW-2	25	Jun 03			12					
[F] VFA-2 Lemoore CVW-2	25	Jun 03			12					
[E/F] VFA-174 (FRS) Oceana	TBD	Oct 03				TBD				
[E] VFA-22 Lemoore CVW-8	26	Dec 03				12 [3]				
[E] VFA-27 Japan CVW-5	26	May 04				13				
[F] VFA-154 Lemoore CVW-9	23/4	May 04				12				
[E] VFA-81 East CVW-17	27	Mar 05					12			
[F] VFA-103 East CVW-17	27	Mar 05					12			
[F] VFA-32 East CVW-3	27 [1]	Aug 05					12			
[F] VFA-213 East CVW-8	28	Jan 06						12		
[E] VFA-86 East CVW-1	28	Jul 06						12		
[F] VFA-211 East CVW-1	28	Jul 06						12		
[F] VFA-11 East CVW-7	29	Dec 06							12	
[F] VFA-143 East CVW-7	29	Dec 06							12	
[F] VFA-31 Lemoore CVW-14	29	May 07							12	
[E] VFA-105 East CVW-3	30	Nov 07								12
[E] VFA-146 Lemoore CVW-9	30	Jul 08								12

Note 1. AESA incorporation is scheduled to begin with Lot 27 aircraft destined for delivery to VFA-32 in August 2005.

Note 2. VFA-102 will swap its Lot 23/24 jets for Lot 26 jets prior to moving to Japan.

Note 3. VFA-22 will remain at NAS Lemoore until NAS Oceana is ready to accept the F/A-18E/F, at which time VFA-22 will PCS to NAS Oceana.

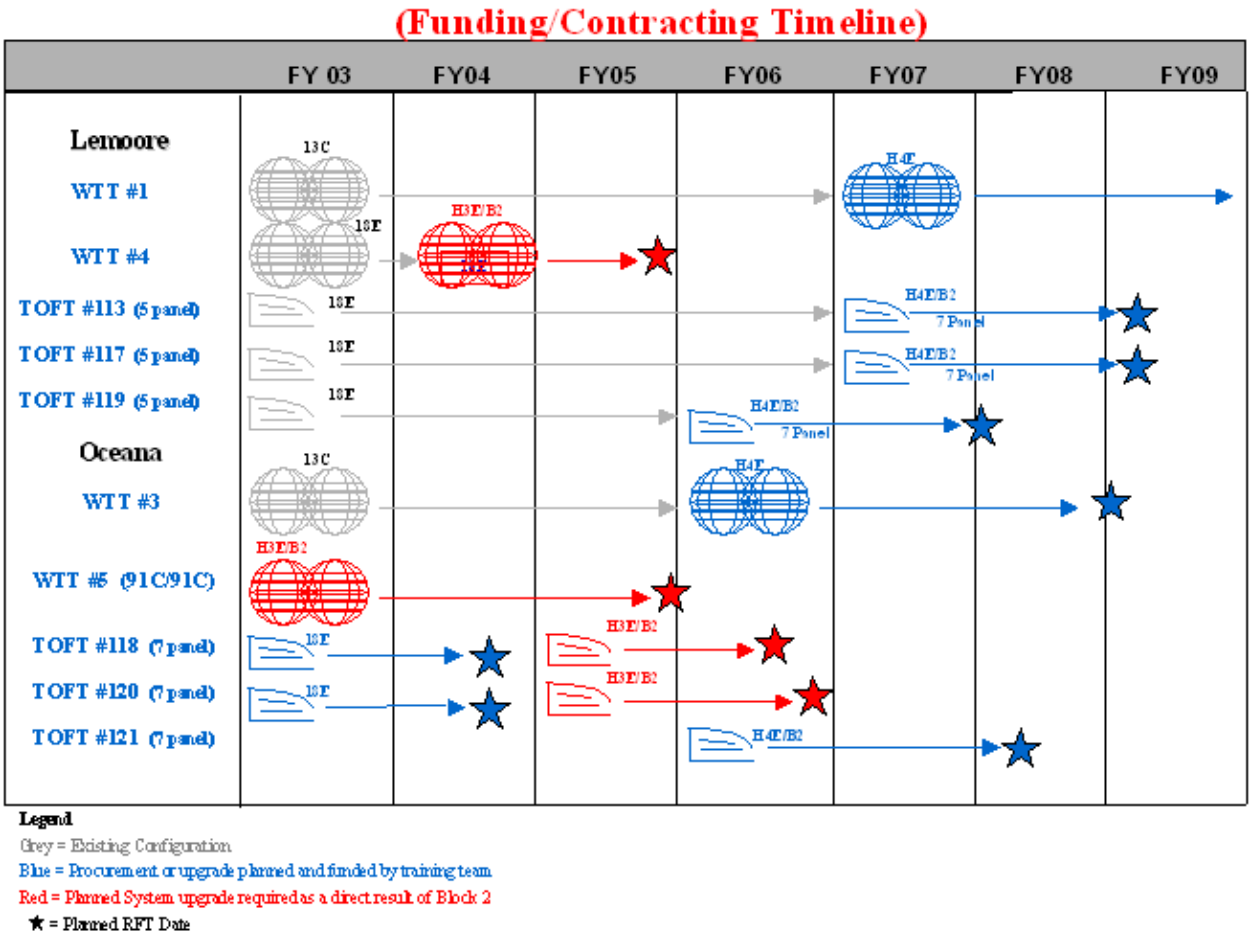
2. Ready For Operational Use Schedule. For each activity the Ready For Operational Use (RFOU) date will coincide with the delivery of the first aircraft to the squadron. Refer to the table above in paragraph K.1. for delivery schedules.

3. Time Required to Install at Operational Sites. After the delivery of the first aircraft to the receiving activity, it will take an estimated four to six months before the ninth aircraft is delivered.

4. Foreign Military Sales and Other Source Delivery Schedule. The following countries may have requirements for the AESA equipped F/A-18E/F Aircraft: Australia, Kuwait, Netherlands, Singapore, and the United Kingdom. No schedules exist at this time.

5. Training Device and Technical Training Equipment Delivery Schedule. PMA205 plans to upgrade the Aircrew Simulators (Tactical Trainers) and the MTS trainers so that they may be evaluated during OPEVAL, scheduled for FY06. Realistic training is required for F/A-18E/F operators and maintainers on both the AN/APG-73 and AN/APG-79 AESA systems.

a. Aircrew Trainers. The Tactical Trainers required for F/A-18 aircrew training are already delivered, but will be upgraded to incorporate AN/APG-79 AESA functionality at both the Lemoore and Oceana F/A-18E/F training sites. The schedule for upgrading those devices is shown below.



b. Maintenance Trainers. The majority of AESA related training will be conducted in the NAMTRAU utilizing the avionics portion of the F/A-18E/F Maintenance Training Set or MTS. MTSs will utilize the most effective portions of the existing Naval Air Maintenance Trainers (NAMT) and Simulated Aircraft Maintenance Trainers (SAMT) and will be upgraded to the latest AESA configuration. The MTS will have computer control capability and provide fault insertion features.

Note: This section will be updated in future revisions of this NTSP as new information becomes available.

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

M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS

DOCUMENT OR NTSP TITLE	DOCUMENT OR NTSP NUMBER	PDA CODE	STATUS
AN/APG-79 AESA Acquisition Logistics Support Plan		NAVAIR PMA265	Draft Dec 00
Single Acquisition Management Plan		NAVAIR PMA265	Approved Dec 00
AN/APG-79 AESA Test and Evaluation Master Plan	0201-07	NAVAIR PMA265	Approved Jan 01
Integrated Support Plan	N00019-01-C-0074	NAVAIR PMA265	Initial Apr 01
F/A-18 Aircraft Navy Training System Plan	N88-NTSP-A-50-7703I/D	NAVAIR PMA265	Draft Oct 02

PART II - BILLET AND PERSONNEL REQUIREMENTS

The following elements are not affected by AN/APG-79 AESA Radar and, therefore, are not included in Part II of this NTSP:

II.A. Billet Requirements

II.A.2.a. Operational and Fleet Support Activity Deactivation Schedule

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

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

PART II - BILLET AND PERSONNEL REQUIREMENTS

II.A. BILLET REQUIREMENTS

SOURCE OF SCHEDULE: NAVAIR 3.4.1: TFS **DATE:** April 2002
SOURCE OF MANPOWER: TFMMS, NTMPS **DATE:** January 2003
SOURCE OF F/A-18E/F TSPAT **DATE:** May 2002

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

ACTIVITY, UIC		PFYs	CFY03	FY04	FY05	FY06	FY07
OPERATIONAL ACTIVITIES - USN							
[E/F] VFA-174 (FRS) Oceana (Future)	65553	0	1	0	0	0	0
[E] VFA-105 East - CVW-3	65183	0	0	0	0	0	1
[E] VFA-81 East - CVW-17	09221	0	0	1	0	0	0
[E] VFA-86 East - CVW-1	09943	0	0	0	1	0	0
[F] VFA-103 East - CVW-17	09718	0	0	1	0	0	0
[F] VFA-11 East - CVW-7	09560	0	0	0	0	1	0
[F] VFA-143 East - CVW-7	09281	0	0	0	0	1	0
[F] VFA-211 East - CVW-1	09086	0	0	0	1	0	0
[F] VFA-213 East - CVW-8	09934	0	0	0	1	0	0
[F] VFA-32 East - CVW-3	09053	0	0	0	1	0	0
[E/F] VFA-122 (FRS) Lemoore [UIC 65558]	09355	1	0	0	0	0	0
[E] VFA-115 Lemoore - CVW-14	09604	1	0	0	0	0	0
[E] VFA-137 Lemoore - CVW-2	55142	1	0	0	0	0	0
[E] VFA-146 Lemoore CVW-9	09063	0	0	0	0	0	1
[E] VFA-22 Lemoore - CVW-8	09561	0	1	0	0	0	0
[E] VFA-27 Japan - CVW-5	65185	0	1	0	0	0	0
[F] VFA-102 Lemoore - CVW-9	09717	1	0	0	0	0	0
[F] VFA-14 Lemoore - CVW-11	09084	1	0	0	0	0	0
[F] VFA-154 Lemoore - CVW-9	09678	0	1	0	0	0	0
[F] VFA-2 Lemoore - CVW-2	09113	1	0	0	0	0	0
[F] VFA-31 Lemoore - CVW-14	09473	0	0	0	0	1	0
[F] VFA-41 Lemoore - CVW-11	09774	1	0	0	0	0	0
TOTAL:		7	4	2	4	3	2
FLEET SUPPORT ACTIVITIES - USN							
Naval Air Warfare Center AD Patuxent River	49860	1	0	0	0	0	0
VX-23 [Strike] Patuxent River	39783	1	0	0	0	0	0
COMSTRKFIGHTWINGPAC Lemoore	09520	1	0	0	0	0	0
STRKFIGHTWINGPAC	55257	1	0	0	0	0	0
VX-31 China Lake	39787	1	0	0	0	0	0
VX-31 NWCF China Lake	30649	1	0	0	0	0	0
VX-9 China Lake	55646	1	0	0	0	0	0
TOTAL:		7	0	0	0	0	0

Note 1: The "OPERATIONAL AND FLEET SUPPORT ACTIVITY ACTIVATION SCHEDULE" is actually a "TRANSITION" vice "ACTIVATION" schedule, showing the timeframe for squadrons transitioning to the F/A-18E/F airframe and hence all are shown as a VFA (vice VF) squadron.

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

Note 2: The AESA Radar will be installed initially in the last eight new production F/A-18E/F Aircraft of Lot 27 and then incrementally in successive production lots: 12 in Lot 28, 22 in Lot 29, and 48 in Lot 30, etc. Later, additional systems will be acquired for retrofit into squadron aircraft which were manufactured with the AESA predecessor, the AN/APG-73.

> **Important:** Beginning in the latter part of FY05, fleet squadrons (starting with Lot 27 equipped VFA-32) transitioning to the AN/APG-79-equipped F/A-18E/F will immediately require AESA-trained operators and maintainers, in addition to AN/APG-73-trained personnel. When production has sufficiently ramped up to provide squadrons with all AESA-equipped F/A-18E/F Aircraft, then the AN/APG-73 training requirement for personnel assigned to those activities will decrease (estimated FY08 or FY09).

Note 3: F/A-18E/F Aircraft radar systems maintenance manpower requirements include AT rating NECs 8841 (Initial) and 8341 (Career) and are projected in advance of F/A-18E/F deliveries and are expected to be reflected in future Activity Manpower Document (AMD) requirements.

Note 4: The use of the term "FY0X Increment" in the following sections does not indicate an increment in manpower requirements, but instead denotes the approximate timeframe of anticipated NEC conversions from existing F-14 or F/A-18A/B/C/D organizational level AT billets to F/A-18E/F organizational level AT billets.

Note 5: Manpower data is current, as of January 2003, for activities that are currently in transition or have finished transitioning to the F/A-18E/F Aircraft.

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
OPERATIONAL ACTIVITIES - USN					
[E/F] VFA-174 (FRS) Oceana (Future), 65553, FY03 Increment					
ACDU	65	0	1312		
	31	0	1322		
	0	2	ATC	8341	
	0	6	AT1	8341	
	0	9	AT2	8341	
	0	10	AT3	8841	
	0	15	ATAN	8841	
ACTIVITY TOTAL:	96	42			
[E] VFA-105 East - CVW-3, 65183, FY07 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	19	22			
[E] VFA-81 East - CVW-17, 09221, FY04 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	19	22			
[E] VFA-86 East - CVW-1, 09943, FY05 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	19	22			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
[F] VFA-103 East - CVW-17, 09718, FY04 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-11 East - CVW-7, 09560, FY06 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-143 East - CVW-7, 09281, FY06 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-211 East - CVW-1, 09086, FY05 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
[F] VFA-213 East - CVW-8, 09934, FY05 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-32 East - CVW-3, 09053, FY05 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[E/F] VFA-122 (FRS) Lemoore [UIC 65558], 09355, FY01 Increment					
ACDU	65	0	1312		
	31	0	1322		
	0	2	ATC	8341	
	0	6	AT1	8341	
	0	9	AT2	8341	
	0	10	AT3	8841	
	0	15	ATAN	8841	
ACTIVITY TOTAL:	96	42			
[E] VFA-115 Lemoore - CVW-14, 09604					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	9	ATAN	8841	
ACTIVITY TOTAL:	19	23			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
[E] VFA-137 Lemoore - CVW-2, 55142, FY02 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	6	ATAN	8841	
ACTIVITY TOTAL:	19	20			
[E] VFA-146 Lemoore CVW-9, 09063, FY07 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	9	ATAN	8841	
ACTIVITY TOTAL:	19	23			
[E] VFA-22 Lemoore - CVW-8, 09561, FY03 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	19	22			
[E] VFA-27 Japan - CVW-5, 65185, FY03 Increment					
ACDU	19	0	1311		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	9	ATAN	8841	
ACTIVITY TOTAL:	19	23			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
[F] VFA-102 Lemoore - CVW-9, 09717, FY02 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	7	AT3	8841	
	0	7	ATAN	8841	
ACTIVITY TOTAL:	38	23			
[F] VFA-14 Lemoore - CVW-11, 09084, FY02 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-154 Lemoore - CVW-9, 09678, FY03 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-2 Lemoore - CVW-2, 09113, FY02 Increment					
ACDU	15	0	1311		
	25	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	5	AT2	8341	
	0	7	AT3	8841	
	0	10	ATAN	8841	
ACTIVITY TOTAL:	40	25			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
[F] VFA-31 Lemoore - CVW-14, 09473, FY06 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	5	AT3	8841	
	0	8	ATAN	8841	
ACTIVITY TOTAL:	38	22			
[F] VFA-41 Lemoore - CVW-11, 09774, FY02 Increment					
ACDU	20	0	1311		
	18	0	1321		
	0	1	ATC	8341	
	0	2	AT1	8341	
	0	1	AT1	8341	6701
	0	5	AT2	8341	
	0	7	AT3	8841	
	0	7	ATAN	8841	
ACTIVITY TOTAL:	38	23			
FLEET SUPPORT ACTIVITIES - USN					
VX-23 [Strike] Patuxent River, 39783, FY02 Increment					
ACDU	0	2	ATC	8341	
	0	7	AT1	8341	
	0	12	AT2	8341	
	0	5	AT3	8841	
	0	1	ATAN	8841	
ACTIVITY TOTAL:	0	27			
STRKFIGHTWINGPAC, 55257					
ACDU	0	1	AT1	8341	
	0	1	AT2	8341	
	0	1	AT3	8841	
	0	2	ATAN	8841	
ACTIVITY TOTAL:	0	5			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS OFF	BILLETS ENL	DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
VX-31 China Lake, 39787					
ACDU	0	1	ATC	8341	
	0	3	AT1	8341	
	0	1	AT1	8341	8342
	0	3	AT2	8341	
	0	2	AT2	8341	8342
	0	7	AT3	8841	
	0	2	ATAN	8841	
	0	2	ATAN	8842	8841
ACTIVITY TOTAL:	0	21			
VX-31 NWCF China Lake, 30649, FY02 Increment					
ACDU	0	1	ATC	8341	8342
ACTIVITY TOTAL:	0	1			
VX-9 China Lake, 55646					
ACDU	0	3	AT2	8341	
	0	1	AT3	8841	
	0	1	ATAN	8841	
ACTIVITY TOTAL:	0	5			

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

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
USN OPERATIONAL ACTIVITIES - ACDU													
1311		113		58		39		79		60		38	
1312		65		65		0		0		0		0	
1321		79		18		18		54		54		0	
1322		31		31		0		0		0		0	
ATC	8341		8		5		2		4		3		2
AT1	8341		18		12		4		8		6		4
AT1	8341 6701		5		3		2		4		3		2
AT2	8341		39		24		10		20		15		10
AT3	8841		46		25		10		20		15		10
ATAN	8841		62		40		16		32		24		17
USN FLEET SUPPORT ACTIVITIES - ACDU													
ATC	8341		3		0		0		0		0		0
ATC	8341 8342		1		0		0		0		0		0
AT1	8341		11		0		0		0		0		0
AT1	8341 8342		1		0		0		0		0		0
AT2	8341		19		0		0		0		0		0
AT2	8341 8342		2		0		0		0		0		0
AT3	8841		14		0		0		0		0		0
ATAN	8841		6		0		0		0		0		0
ATAN	8842 8841		2		0		0		0		0		0

SUMMARY TOTALS:

USN OPERATIONAL ACTIVITIES - ACDU												
288	178	172	109	57	44	133	88	114	66	38	45	
USN FLEET SUPPORT ACTIVITIES - ACDU												
59		0		0		0		0		0		

GRAND TOTALS:

USN - ACDU											
288	237	172	109	57	44	133	88	114	66	38	45

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

DESIG RATING	PNEC/SNEC PMOS/SMOS		PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
TRAINING ACTIVITY, LOCATION, UIC: MTU 1038 NAMTRAU Lemoore, 66060														
INSTRUCTOR BILLETS														
USN														
ATC	8341	9502	0	0	0	2	0	2	0	2	0	2	0	2
AT1	8341	9502	0	2	0	6	0	6	0	6	0	6	0	6
AT2	8341	9502	0	0	0	2	0	2	0	2	0	2	0	2
SUPPORT BILLETS														
USN														
ATC	8341		0	0	0	1	0	1	0	1	0	1	0	1
AT2	8341		0	0	0	1	0	1	0	1	0	1	0	1
TOTAL:			0	2	0	12	0	12	0	12	0	12	0	12
TRAINING ACTIVITY, LOCATION, UIC: MTU 1039 NAMTRAU Oceana, 66045														
INSTRUCTOR BILLETS														
USN														
AT1	8341	9502	0	10	0	9	0	9	0	9	0	9	0	9
AT2	8341	9502	0	1	0	6	0	6	0	6	0	6	0	6
SUPPORT BILLETS														
USN														
AT1	8341		0	0	0	1	0	1	0	1	0	1	0	1
TOTAL:			0	11	0	16	0	16	0	16	0	16	0	16

II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs OFF	PFYs ENL	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
MTU 1039 NAMTRAU, Oceana, 66045													
	USN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0.0	20.6	0.0	18.8
VFA-174 E/F FRS-East, NAS Oceana, 65553													
	USN	0.0	0.0	0.0	0.0	0.0	0.0	74.7	0.0	60.0	0.0	48.4	0.0
MTU 1038 NAMTRAU, Lemoore, 66060													
	USN	0.0	27.9	0.0	26.3	0.0	18.5	0.0	19.5	0.0	23.1	0.0	23.7
VFA-122 E/F FRS-West, NAS Lemoore, 09355													
	USN	0.0	0.0	0.0	0.0	124.9	0.0	151.2	0.0	156.0	0.0	139.5	0.0
SUMMARY TOTALS:													
	USN	0.0	27.9	0.0	26.3	124.9	18.5	225.9	42.5	216.0	43.7	187.9	42.5
GRAND TOTALS:													
		0.0	27.9	0.0	26.3	124.9	18.5	225.9	42.5	216.0	43.7	187.9	42.5

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CFY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM	FY07 +/-	FY07 CUM
a. OFFICER - USN													
Operational Billets ACDU and TAR													
1311			113	58	171	39	210	79	289	60	349	38	387
1312			65	65	130	0	130	0	130	0	130	0	130
1321			79	18	97	18	115	54	169	54	223	0	223
1322			31	31	62	0	62	0	62	0	62	0	62
Chargeable Student Billets ACDU and TAR													
			0	0	0	125	125	101	226	-10	216	-28	188
TOTAL USN OFFICER BILLETS:													
Operational			288	172	460	57	517	133	650	114	764	38	802
Chargeable Student			0	0	0	125	125	101	226	-10	216	-28	188
b. ENLISTED - USN													
Operational Billets ACDU and TAR													
ATC	8341		8	5	13	2	15	4	19	3	22	2	24
AT1	8341		18	12	30	4	34	8	42	6	48	4	52
AT1	8341	6701	5	3	8	2	10	4	14	3	17	2	19
AT2	8341		39	24	63	10	73	20	93	15	108	10	118
AT3	8841		46	25	71	10	81	20	101	15	116	10	126
ATAN	8841		62	40	102	16	118	32	150	24	174	17	191
Fleet Support Billets ACDU and TAR													
ATC	8341		3	0	3	0	3	0	3	0	3	0	3
ATC	8341	8342	1	0	1	0	1	0	1	0	1	0	1
AT1	8341		11	0	11	0	11	0	11	0	11	0	11
AT1	8341	8342	1	0	1	0	1	0	1	0	1	0	1
AT2	8341		19	0	19	0	19	0	19	0	19	0	19
AT2	8341	8342	2	0	2	0	2	0	2	0	2	0	2
AT3	8841		14	0	14	0	14	0	14	0	14	0	14
ATAN	8841		6	0	6	0	6	0	6	0	6	0	6
ATAN	8842	8841	2	0	2	0	2	0	2	0	2	0	2
Staff Billets ACDU and TAR													
ATC	8341		0	1	1	0	1	0	1	0	1	0	1
ATC	8341	9502	0	2	2	0	2	0	2	0	2	0	2
AT1	8341		0	1	1	0	1	0	1	0	1	0	1
AT1	8341	9502	12	3	15	0	15	0	15	0	15	0	15
AT2	8341		0	1	1	0	1	0	1	0	1	0	1
AT2	8341	9502	1	7	8	0	8	0	8	0	8	0	8

II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY03 +/-	CFY03 CUM	FY04 +/-	FY04 CUM	FY05 +/-	FY05 CUM	FY06 +/-	FY06 CUM	FY07 +/-	FY07 CUM
Chargeable Student Billets ACDU and TAR			28	-1	27	-8	19	24	43	1	44	-1	43
TOTAL USN ENLISTED BILLETS:													
Operational			178	109	287	44	331	88	419	66	485	45	530
Fleet Support			59	0	59	0	59	0	59	0	59	0	59
Staff			13	15	28	0	28	0	28	0	28	0	28
Chargeable Student			28	-1	27	-8	19	24	43	1	44	-1	43

c. OFFICER - USMC Not Applicable

d. ENLISTED - USMC Not Applicable

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-2A-061X, F/A-18E/F Fleet Replacement Pilot Category 1 Pipeline
COURSE LENGTH: 33.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.66

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		131		154		155		138	
		TOTAL:	0		131		154		155		138	

CIN, COURSE TITLE: D-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline
COURSE LENGTH: 17.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.34

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		35		31		27	
		TOTAL:	0		0		35		31		27	

CIN, COURSE TITLE: E-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline
COURSE LENGTH: 17.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.34

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		23		26		32		31	
		TOTAL:	0		23		26		32		31	

CIN, COURSE TITLE: D-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline
COURSE LENGTH: 31.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.62

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		17		15		13	
		TOTAL:	0		0		17		15		13	

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline
COURSE LENGTH: 31.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.62

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		11		14		16		15	
		TOTAL:	0		11		14		16		15	

CIN, COURSE TITLE: D-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline
COURSE LENGTH: 5.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.10

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		4		4		4	
		TOTAL:	0		0		4		4		4	

CIN, COURSE TITLE: E-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline
COURSE LENGTH: 5.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.10

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		4		4		4		4	
		TOTAL:	0		4		4		4		4	

CIN, COURSE TITLE: D-2D-081X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 1 Pipeline
COURSE LENGTH: 30.8 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.62

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		60		45		36	
		TOTAL:	0		0		60		45		36	

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-2D-081X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 1 Pipeline
COURSE LENGTH: 30.8 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.62

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		32		43		43		38	
		TOTAL:	0		32		43		43		38	

CIN, COURSE TITLE: D-2D-082X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 2 Pipeline
COURSE LENGTH: 27.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.54

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		24		19		14	
		TOTAL:	0		0		24		19		14	

CIN, COURSE TITLE: E-2D-082X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 2 Pipeline
COURSE LENGTH: 27.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.54

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		13		17		18		15	
		TOTAL:	0		13		17		18		15	

CIN, COURSE TITLE: D-2D-083X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 3 Pipeline
COURSE LENGTH: 23.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.46

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		12		10		7	
		TOTAL:	0		0		12		10		7	

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-2D-083X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 3 Pipeline
COURSE LENGTH: 23.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.46

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		6		8		9		8	
		TOTAL:	0		6		8		9		8	

CIN, COURSE TITLE: D-2D-084X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 4 Pipeline
COURSE LENGTH: 5.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.10

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-174 E/F FRS-East, NAS Oceana												
	USN	ACDU	0		0		2		2		2	
		TOTAL:	0		0		2		2		2	

CIN, COURSE TITLE: E-2D-084X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 4 Pipeline
COURSE LENGTH: 5.2 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 0% **BACKOUT FACTOR:** 0.10

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
VFA-122 E/F FRS-West, NAS Lemoore												
	USN	ACDU	0		2		2		2		2	
		TOTAL:	0		2		2		2		2	

CIN, COURSE TITLE: D-102-0625, F/A-18E/F Avionics Differences Data Pipeline
COURSE LENGTH: 5.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.11

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1039 NAMTRAU Oceana												
	USN	ACDU		0		0		6		6		6
		TOTAL:		0		0		6		6		6

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-102-0625, F/A-18E/F Avionics Differences Data Pipeline
COURSE LENGTH: 5.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.11

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1038 NAMTRAU Lemoore												
	USN	ACDU		20		12		12		14		14
		TOTAL:		20		12		12		14		14

CIN, COURSE TITLE: D-102-0623, F/A-18E/F Avionic Systems (Initial) Organizational Maintenance Pipeline
COURSE LENGTH: 13.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.26

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1039 NAMTRAU Oceana												
	USN	ACDU		0		0		76		67		61
		TOTAL:		0		0		76		67		61

CIN, COURSE TITLE: E-102-0623, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance Pipeline
COURSE LENGTH: 13.0 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.26

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1038 NAMTRAU Lemoore												
	USN	ACDU		82		60		64		76		78
		TOTAL:		82		60		64		76		78

CIN, COURSE TITLE: D-102-0624, F/A-18E/F Avionic Systems (Career) Organizational Maintenance Pipeline
COURSE LENGTH: 6.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.13

TRAINING		ACDU/TAR	CFY03		FY04		FY05		FY06		FY07	
ACTIVITY	SOURCE	SELRES	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
MTU 1039 NAMTRAU Oceana												
	USN	ACDU		0		0		41		38		35
		TOTAL:		0		0		41		38		35

II.B. ANNUAL TRAINING INPUT REQUIREMENTS

CIN, COURSE TITLE: E-102-0624, F/A-18E/F Avionics Systems (Career) Organizational Maintenance Pipeline
COURSE LENGTH: 6.6 Weeks **NAVY TOUR LENGTH:** 36 Months
ATTRITION FACTOR: Navy: 10% **BACKOUT FACTOR:** 0.13

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY03 OFF	CFY03 ENL	FY04 OFF	FY04 ENL	FY05 OFF	FY05 ENL	FY06 OFF	FY06 ENL	FY07 OFF	FY07 ENL
MTU 1038 NAMTRAU Lemoore												
	USN	ACDU		45		29		30		35		36
		TOTAL:		45		29		30		35		36

PART III - TRAINING REQUIREMENTS

The following elements are not affected by the AN/APG-79 AESA Radar and, therefore, are not included in Part III of this NTSP:

III.A.2. Follow-on Training

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

Note 1: Initial and Follow-on training courses are not finalized and new information regarding them will be documented when this NTSP is next updated.

Note 2: Only the West Coast FRS, VFA-122, will provide F/A-18E/F Pilot Category 1 training.

PART III - TRAINING REQUIREMENTS

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: F/A-18E/F DT/OT Maintainer Initial Training [Cadre I]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VX-9 China Lake

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
VX-9 China Lake, XXXXX	Apr 03		10		Input
			1.2		AOB
			1.2		Chargeable

COURSE TITLE: F/A-18E/F DT/OT Maintainer Initial Training [Cadre 1]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VX-31 China Lake

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
VX-31 China Lake, XXXXX	May 03		10		Input
			1.2		AOB
			1.2		Chargeable

COURSE TITLE: F/A-18E/F DT/OT Aircrew Initial Training [Cadre I]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VX-31 China Lake, VX-9 China Lake

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
Boeing "Dome" St. Louis, XXXXX	Jun 03	4			Input
		0.5			AOB
		0.5			Chargeable

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: F/A-18E/F DT/OT Aircrew Initial Training [Cadre I]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VX-31 China Lake, VX-9 China Lake

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
Boeing "Dome" St. Louis, XXXXX	Aug 03	4			Input
		0.5			AOB
		0.5			Chargeable

COURSE TITLE: F/A-18E/F Fleet Aircrew Initial Training [Cadre II]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VFA-122 E/F FRS West

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
Boeing "Dome" St. Louis, XXXXX	Sep 03	12			Input
		1.5			AOB
		1.5			Chargeable

COURSE TITLE: F/A-18E/F Fleet Maintainer Initial Training [Cadre II]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VFA-122 E/F FRS West

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
VFA-122 E/F FRS West, XXXXX	Sep 03		12		Input
			1.5		AOB
			1.5		Chargeable

COURSE TITLE: F/A-18E/F Fleet Aircrew Initial Training [Cadre II]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: VFA-174 Oceana

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
Boeing "Dome" St. Louis, XXXXX	Oct 03	12			Input
		1.5			AOB
		1.5			Chargeable

III.A.1. INITIAL TRAINING REQUIREMENTS

COURSE TITLE: F/A-18E/F Fleet Maintainer Initial Training [Cadre II]
COURSE DEVELOPER: Boeing [Contract Pending]
COURSE INSTRUCTOR: TBD
COURSE LENGTH: 45 Days
ACTIVITY DESTINATIONS: On-Site at Destination Activity

LOCATION, UIC	BEGIN DATE	STUDENTS OFF	ENL	CIV	
Destination Activity	Oct 03		12		Input
			1.5		AOB
			1.5		Chargeable

III.A.2. FOLLOW-ON TRAINING

III.A.2.a. EXISTING COURSES

CIN, COURSE TITLE: E-102-0623, F/A-18E/F Avionics Systems (Initial) Organizational Maintenance Pipeline
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	82		60		64		76		78	ATIR
	74		54		58		68		70	Output
	19.0		13.9		14.8		17.6		18.1	AOB
	19.0		13.9		14.8		17.6		18.1	Chargeable

CIN, COURSE TITLE: E-102-0624, F/A-18E/F Avionics Systems (Career) Organizational Maintenance Pipeline
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	45		29		30		35		36	ATIR
	41		26		27		32		32	Output
	5.3		3.4		3.5		4.1		4.2	AOB
	5.3		3.4		3.5		4.1		4.2	Chargeable

CIN, COURSE TITLE: E-102-0625, F/A-18E/F Avionics Differences Data Pipeline
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	20		12		12		14		14	ATIR
	18		11		11		13		13	Output
	2.0		1.2		1.2		1.4		1.4	AOB
	2.0		1.2		1.2		1.4		1.4	Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: E-2A-061X, F/A-18E/F Fleet Replacement Pilot Category 1 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		131		154		155		138		ATIR
0		131		154		155		138		Output
0.0		82.2		96.6		97.2		86.6		AOB
0.0		82.2		96.6		97.2		86.6		Chargeable

CIN, COURSE TITLE: D-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		35		31		27		ATIR
0		0		35		31		27		Output
0.0		0.0		11.2		9.9		8.7		AOB
0.0		0.0		11.2		9.9		8.7		Chargeable

CIN, COURSE TITLE: E-2A-062X, F/A-18E/F Fleet Replacement Pilot Category 2 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		23		26		32		31		ATIR
0		23		26		32		31		Output
0.0		7.4		8.3		10.3		9.9		AOB
0.0		7.4		8.3		10.3		9.9		Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: D-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		17		15		13		ATIR
0		0		17		15		13		Output
0.0		0.0		10.0		8.8		7.7		AOB
0.0		0.0		10.0		8.8		7.7		Chargeable

CIN, COURSE TITLE: E-2A-063X, F/A-18E/F Fleet Replacement Pilot Category 3 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		11		14		16		15		ATIR
0		11		14		16		15		Output
0.0		6.5		8.2		9.4		8.8		AOB
0.0		6.5		8.2		9.4		8.8		Chargeable

CIN, COURSE TITLE: D-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		9		9		9		ATIR
0		0		9		9		9		Output
0.0		0.0		0.9		0.9		0.9		AOB
0.0		0.0		0.9		0.9		0.9		Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: E-2A-064X, F/A-18E/F Fleet Replacement Pilot Category 4 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		9		9		9		9		ATIR
0		9		9		9		9		Output
0.0		0.9		0.9		0.9		0.9		AOB
0.0		0.9		0.9		0.9		0.9		Chargeable

CIN, COURSE TITLE: D-2D-081X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 1 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		60		45		36		ATIR
0		0		60		45		36		Output
0.0		0.0		35.2		26.4		21.1		AOB
0.0		0.0		35.2		26.4		21.1		Chargeable

CIN, COURSE TITLE: E-2D-081X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 1 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		32		43		43		38		ATIR
0		32		43		43		38		Output
0.0		18.8		25.2		25.2		22.3		AOB
0.0		18.8		25.2		25.2		22.3		Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: D-2D-082X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 2 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		24		19		14		ATIR
0		0		24		19		14		Output
0.0		0.0		12.5		9.9		7.3		AOB
0.0		0.0		12.5		9.9		7.3		Chargeable

CIN, COURSE TITLE: E-2D-082X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 2 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		13		17		18		15		ATIR
0		13		17		18		15		Output
0.0		6.8		8.8		9.4		7.8		AOB
0.0		6.8		8.8		9.4		7.8		Chargeable

CIN, COURSE TITLE: D-2D-083X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 3 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		12		10		7		ATIR
0		0		12		10		7		Output
0.0		0.0		5.2		4.4		3.0		AOB
0.0		0.0		5.2		4.4		3.0		Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: E-2D-083X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 3 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		6		8		9		8		ATIR
0		6		8		9		8		Output
0.0		2.6		3.5		3.9		3.5		AOB
0.0		2.6		3.5		3.9		3.5		Chargeable

CIN, COURSE TITLE: D-2D-084X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 4 Pipeline
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		4		4		4		ATIR
0		0		4		4		4		Output
0.0		0.0		0.4		0.4		0.4		AOB
0.0		0.0		0.4		0.4		0.4		Chargeable

CIN, COURSE TITLE: E-2D-084X, F/A-18F Combat Capable Weapons Systems Officer (WSO) Category 4 Pipeline
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		4		4		4		4		ATIR
0		4		4		4		4		Output
0.0		0.4		0.4		0.4		0.4		AOB
0.0		0.4		0.4		0.4		0.4		Chargeable

III.A.2.b. PLANNED COURSES

CIN, COURSE TITLE: D-102-0623, F/A-18E/F Avionic Systems (Initial) Organizational Maintenance Pipeline
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		76		67		61		ATIR
0		0		68		60		55		Output
0.0		0.0		17.6		15.5		14.1		AOB
0.0		0.0		17.6		15.5		14.1		Chargeable

CIN, COURSE TITLE: D-102-0624, F/A-18E/F Avionic Systems (Career) Organizational Maintenance Pipeline
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		41		38		35		ATIR
0		0		37		34		32		Output
0.0		0.0		4.8		4.5		4.1		AOB
0.0		0.0		4.8		4.5		4.1		Chargeable

CIN, COURSE TITLE: D-102-0625, F/A-18E/F Avionics Differences Data Pipeline
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

SOURCE: USN **STUDENT CATEGORY:** ACDU - TAR

CFY03		FY04		FY05		FY06		FY07		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
0		0		6		6		6		ATIR
0		0		5		5		5		Output
0.0		0.0		0.6		0.6		0.6		AOB
0.0		0.0		0.6		0.6		0.6		Chargeable

Note: Only the West Coast FRS, VFA-122, will provide F/A-18E/F Pilot Category 1 training.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

The following elements are not affected by the AN/APG-79 AESA Radar and, therefore, are not included in Part IV of this NTSP:

IV.B. Courseware Requirements

IV.B.3. Technical Manuals

IV.C. Facility Requirements

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

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

IV.C.3. Facility Project Summary by Program

Note 1: Technical Manuals (Element IV.B. 3) are not listed here as it is expected that existing F/A-18E/F operator and maintainer paper publications, manuals, and electronic training manuals (IETMS) will be modified to include AN/APG-79 AESA data according to the applicable aircraft Type Model Series (i.e., by Bureau Number).

Note 2: Facility Requirements (Element IV.C): No new facilities are required at this time to support the AN/APG-79 system.

PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS

IV.A. TRAINING HARDWARE

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

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track E-102-0623)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
1	AN/APG-79 AESA Radar Radome Removal Fixture	1	Jan 05	GFE	Pending

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track E-102-0624)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
1	AN/APG-79 AESA Radar Radome Removal Fixture	1	Jan 05	GFE	Pending

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics Systems Difference Data Organizational Maintenance (Track E-102-0625)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
1	AN/APG-79 AESA Radar Radome Removal Fixture	1	Jan 05	GFE	Pending

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track D-102-0623)
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
1	AN/APG-79 AESA Radar Radome Removal Fixture	1	Jan 05	GFE	Pending

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

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track D-102-0624)
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
1	AN/APG-79 AESA Radar Radome Removal Fixture	1	Jan 05	GFE	Pending

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics Systems Difference Data Organizational Maintenance (Track D-102-0625)
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR	QTY REQD	DATE REQD	GFE CFE	STATUS
TTE					
1	AN/APG-79 AESA Radar Radome Removal Fixture	1	Jan 05	GFE	Pending

Note 1: There is a requirement for four AN/APG-79 AESA Radar Radome Removal Fixtures for training purposes: one each at the VFA-122, VFA-174, MTU 1038 NAMTRAU Lemoore, and MTU 1039 NAMTRAU Oceana.

Note 2: The three organizational level avionics courses (to be taught at both MTU 1038 NAMTRAU Lemoore and MTU 1039 NAMTRAU Oceana) will share a common AESA Radar Radome Removal Fixture at each location.

Note 3: There is an immediate requirement for VFA-122 to have an AN/APG-79 AESA Radar Radome Removal Fixture as training will begin there in June 2003. VFA-174 is planned to stand up in October 2003. The NAMTRAU MTUs are to be ready to train on AESA by second quarter FY05.

IV.A.2. TRAINING DEVICES

DEVICE: 15C13, F/A-18 Part Task Trainer (PTT)

DESCRIPTION: Device 15C13, F/A-18 PTT, is a training complex that consists of two Trainee Stations each equipped with mockup F/A-18 Cockpits, an associated Simulation Computer System, an Operator Station with two Portable Control Terminals, a Power Supply Cabinet, a Mission Computer Cabinet housing four AN/AYK-14 Mission Computers, and another Interface Cabinet containing electronics that interface the Simulation Computer with the Cockpits. Other peripherals include a Gould CPU32/77, Magnetic Tape/Disk Cabinet, Line Printer, and a Card Reader. Device 15C13 accommodates two trainees simultaneously and may be used with or without an instructor.

The PTT provides F/A-18 aircrew with orientation and familiarization with the "Hands-On Throttle-And-Stick" (HOTAS) controls, limited radar intercept geometry, and an introduction to the basic capabilities of the combined use of HOTAS, the Up Front Control, the Master Monitor Display, the Multifunction Display, the Electronic Horizontal Situation Indicator, the Head-Up Display, and the Armament Panel. Device 15C13 is unclassified. Stock number is 6930-LL-C00-5213. (See Note 1.)

MANUFACTURER: Gould Simulation Systems

CONTRACT NUMBER: N61339-79-0121

TEE STATUS: NA

TRAINING ACTIVITY: COMSTRKFIGHTWINGLANT

LOCATION, UIC : NAS Oceana, 09103

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Jun 85	Onboard	E-2A-06X2	(Track D-2A-062X)
				E-2A-06X3	(Track D-2A-063X)
				E-2A-06X4	(Track D-2A-064X)

TRAINING ACTIVITY: COMSTRKFIGHTWINGPAC

LOCATION, UIC : NAS Lemoore, 09520

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Jun 82	Onboard	E-2A-06X1	(Track E-2A-061X)
				E-2A-06X2	(Track E-2A-062X)
				E-2A-06X3	(Track E-2A-063X)
				E-2A-06X4	(Track E-2A-064X)

IV.A.2. TRAINING DEVICES

DEVICE: 2E7, F/A-18 Weapons Tactics Trainer (WTT)

DESCRIPTION: Device 2E7, F/A-18 WTT, is a land-based trainer weighing 169,700 pounds and occupying 13,406 square feet of space. It is a dual training complex, consisting of two identical training areas and numerous supporting stations and consoles. Each training area consists of an actual F/A-18 Cockpit mounted near the center of a large sphere. Simulated images of the sky, earth, targets, and gunfire are projected on the inner surface of the sphere and are viewed by the trainee during the training exercise. The advanced design of the computer image generator permits detail and realism in these visual presentations. Device 2E7 is housed in five rooms and/or areas at a facility:

- Room 1 is the Trainee Room, containing the two spheres.
- Room 2 contains two Instructor Stations, from where the instructor(s) monitor and control the exercises.
- Room 3 contains the Debrief Station where the recorded exercise may be played back for discussion with the trainee.
- Room 4 contains the Computer Image Generator, which generates video for the presentations, and an equipment monitor console and the interface electronics.
- Room 5 contains the Digital Computers.

Unmodified, operational equipment used includes numerous cockpit instruments and:

- 2 General Electric Flight Control Computers
- 2 AN/AYK-14(V) Mission Computers

During training exercises, the trainee utilizes all flight and weapon controls of the cockpit while experiencing all sights, sounds, accelerations, and buffets that would be encountered on an actual flight mission. An instructor, who has direct communication the trainee(s), coordinates and monitors training exercises. Trainees may aid or oppose each other in a coordinated exercise. Alternatively, either or both trainees may oppose an instructor and/or a computer. Air-to-air combat training exercises are possible in three ways:

- Trainee opposes a threat aircraft (one-on-one)
- Trainee opposes two threat aircraft (one-on-two)
- Trainee and a friendly aircraft oppose a threat aircraft (two on one)

The instructor can record the exercise for later playback in Room 3 where the playback can be "frozen" at any time for detailed examination. Device 2E7 is unclassified. Stock Number is 6930-LL-C00-5212. (See Note 1.)

MANUFACTURER: Hughes Aircraft Co., El Segundo, California
CONTRACT NUMBER: N61339-79-C-0169
TEE STATUS: NA

TRAINING ACTIVITY: COMSTRKFIGHTWINGLANT
LOCATION, UIC : NAS Oceana, 09103

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Jun 86	Onboard	E-2A-06X1	(Track D-2A-061X)
		Sep 90		E-2A-06X2	(Track D-2A-062X)
		Jun 86		E-2A-06X2	(Track D-2A-062X)
				E-2A-06X3	(Track D-2A-063X)
		Sep 90		E-2A-06X3	(Track D-2A-063X)
		Jun 86		E-2A-06X4	(Track D-2A-064X)
		Sep 90		E-2A-06X4	(Track D-2A-064X)

IV.A.2. TRAINING DEVICES

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Jun 86	Onboard	E-2D-08X1	(Track D-2D-081X)
		Sep 90		E-2D-08X1	(Track D-2D-081X)
				E-2D-08X2	(Track D-2D-082X)
		Jun 86		E-2D-08X2	(Track D-2D-082X)
		Sep 90		E-2D-08X3	(Track D-2D-083X)
		Jun 86		E-2D-08X3	(Track D-2D-083X)
		Sep 90		E-2D-08X4	(Track D-2D-084X)
		Jun 86		E-2D-08X4	(Track D-2D-084X)

TRAINING ACTIVITY: COMSTRKFIGHTWINGPAC
LOCATION, UIC : NAS Lemoore, 09520

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Sep 84	Onboard	E-2A-06X1	(Track E-2A-061X)
		Sep 86		E-2A-06X1	(Track E-2A-061X)
		Sep 84		E-2A-06X2	(Track E-2A-062X)
		Sep 86		E-2A-06X2	(Track E-2A-062X)
		Sep 84		E-2A-06X3	(Track E-2A-063X)
		Sep 86		E-2A-06X3	(Track E-2A-063X)
				E-2A-06X4	(Track E-2A-064X)
		Sep 84		E-2A-06X4	(Track E-2A-064X)
				E-2D-08X1	(Track E-2D-081X)
		Sep 86		E-2D-08X1	(Track E-2D-081X)
		Sep 84		E-2D-08X2	(Track E-2D-082X)
		Sep 86		E-2D-08X2	(Track E-2D-082X)
		Sep 84		E-2D-08X3	(Track E-2D-083X)
		Sep 86		E-2D-08X3	(Track E-2D-083X)
		Sep 84		E-2D-08X4	(Track E-2D-084X)
		Sep 86		E-2D-08X4	(Track E-2D-084X)

IV.A.2. TRAINING DEVICES

DEVICE: 2F132, F/A-18 Operational Flight Trainer (OFT)

DESCRIPTION: Device 2F132, F/A-18 OFT, is a computer-controlled OFT incorporated in a training complex that consists of 39 pieces of equipment weighing over 20,800 pounds and occupying approximately 2,050 square feet of floor space divided into four major areas: Trainee Area, Instructor Area, Computer Area, and Utility Area. The following unmodified operational equipment is used in the trainer:

- 1 Up Front Control
- 1 Master Monitor Display
- 1 Head-Up Display with Controls
- 1 Multifunction Display
- 1 Horizontal Situation Display
- 1 Flight Control Stick with HOTAS Controls
- 1 Throttle with HOTAS Controls
- 1 Digital Engine Monitor Display
- 1 Fuel Quantity Indicator
- 2 Flight Control Computers
- 1 Flight Control Computer Control Panel
- 2 Mission Computers (AN/AYK-14)

This trainer provides realistic operational flight proficiency training for the F/A-18 Pilot by faithfully simulating the operation and response of the F/A-18 Aircraft flight controls, instruments, and systems, as well as its visual, aural, environmental, and motion sensations. The dusk/night visual display shows the surrounding carrier/airfield terrain throughout takeoff, maneuvers, and landing approach as a function of the aircraft attitude, altitude, and speed. Aural effects, such as engine turbine, engine nozzle, accessories, air conditioning turbine, and airflow also are simulated. An ejection seat shaker provides buffets simulation. A G-seat, used with a G-suit, provides motion cues. The trainer includes such automated instructional features as procedural sequence monitoring, pre-programmed insertion of malfunctions, dynamic replay, parameter recording, checkride and automission programs, and demonstration flights. The trainer can provide hard copy printouts for evaluating trainee performance. Device 2F132 is confidential when software is loaded. Stock Number is 6930-LL-C00-5211. (See Note 1.)

MANUFACTURER: SSM-SECOR of Fairfax, Virginia
CONTRACT NUMBER: N61339-79-C-0144
TEE STATUS: N/A

TRAINING ACTIVITY: COMSTRKFIGHTWINGLANT
LOCATION, UIC : NAS Oceana, 09103

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Jun 85	Onboard	E-2A-06X1	(Track D-2A-061X)
				E-2A-06X2	(Track D-2A-062X)
		Sep 86		E-2A-06X2	(Track D-2A-062X)
		Jun 85		E-2A-06X3	(Track D-2A-063X)
		Sep 86		E-2A-06X3	(Track D-2A-063X)
		Jun 85		E-2A-06X4	(Track D-2A-064X)
		Sep 86		E-2A-06X4	(Track D-2A-064X)

IV.A.2. TRAINING DEVICES

TRAINING ACTIVITY: COMSTRKFIGHTWINGPAC
LOCATION, UIC : NAS Lemoore, 09520

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1		Jun 82	Onboard	E-2A-06X1	(Track E-2A-061X)
		Jul 86		E-2A-06X1	(Track E-2A-061X)
		Jun 82		E-2A-06X2	(Track E-2A-062X)
		Jul 86		E-2A-06X2	(Track E-2A-062X)
		Jun 82		E-2A-06X3	(Track E-2A-063X)
		Jul 86		E-2A-06X3	(Track E-2A-063X)
		Jun 82		E-2A-06X4	(Track E-2A-064X)
		Jul 86		E-2A-06X4	(Track E-2A-064X)

DEVICE: F/A-18E/F Avionics Maintenance Trainer
DESCRIPTION: Device F/A-18E/F Avionics System Maintenance Trainer consists of an F/A-18E/F Cockpit Mockup equipped with the avionics systems normally found in the cockpit, and those located in the forward fuselage, including the radar system and nose radome. The Avionics Maintenance Trainer is one part of a Maintenance Trainer Set (MTS) which also includes the maintenance trainers for Flight Control System/Composite Repair, Environmental Control System, Fuel, Armament, and Landing Gear/Hydraulics. The Avionics Maintenance Trainer provides a realistic representation of the F/A-18E/F avionics systems for training the Navy or Marine Corps organizational level Electronics Technician to be proficient in troubleshooting and repair procedures. (See Note 2.)
MANUFACTURER: Boeing
CONTRACT NUMBER: As per PMA205
TEE STATUS: NA

TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC : NAS Oceana, 66045

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1	Jun 05		Pending	C-102-9977	(Track D-102-0623)
				C-102-9978	(Track D-102-0624)
				C-102-9979	(Track D-102-0625)

TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC : NAS Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED	
1	Oct 02	Oct 02	Onboard	C-102-9977	(Track E-102-0623)
				C-102-9978	(Track E-102-0624)
				C-102-9979	(Track E-102-0625)

IV.A.2. TRAINING DEVICES

DEVICE: Learning Resource Center (LRC)
DESCRIPTION: The Learning Resource Center functions both as a classroom and a central repository for all training materials delivered on digital media to a training activity. The LRC provides instructional materials such as Computer-Assisted Instruction (CAI), Interactive Courseware (ICW), trainee guides, and simulation software for user self-paced, refresher study to supplement formal classroom training. The LRC provides a workbench and development tools for instructors to review, update, and maintain instructional materials. The LRC also functions as an Electronic Classroom for backup or overflow classroom training. The primary components of the subsystem are the developer station, user workstations, presentation device, video controller, network server, Computer-Based Training (CBT) materials, and the Aviation Maintenance Continuum System Software Module (AMTCS) application program. (See Note 3.)
MANUFACTURER: Boeing Aircraft (Part Number 94108X-XXXX-XX)
CONTRACT NUMBER: N00600-96-D-0193
TEE STATUS: NA

TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC : NAS Oceana, 66045

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 02		Onboard	C-102-9977 (Track D-102-0623) C-102-9978 (Track D-102-0624) C-102-9979 (Track D-102-0625)

TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC : NAS Lemoore, 66060

QTY REQD	DATE REQD	RFT DATE	STATUS	COURSES SUPPORTED
1	Jan 02	Apr 02	Onboard	C-102-9977 (Track E-102-0623) C-102-9978 (Track E-102-0624) C-102-9979 (Track E-102-0625)

Note 1. Aircrew Training Devices and Simulators, such as Device 2E7, Weapons Tactics Trainer will have to be modified to provide a realistic cockpit mockup for training aircrewmen to fly AESA-equipped F/A-18E/F aircraft. Modifications will consist of both hardware and software upgrades. Aircrew Training Devices will have to support both AN/APG-73 and AN/APG-79 AESA Radar Systems training.

Note 2. Maintenance Training Devices, such as the F/A-18E/F Maintenance Training Set (MTS) will have to be modified to provide realistic training for Navy maintenance personnel with NECs 8841 and 8341 assigned to perform troubleshooting and maintenance on AESA equipped F/A-18E/F aircraft. Modifications will consist of both hardware and software upgrades. The Avionics portions of the Training Devices will have to support both AN/APG-73 and AN/APG-79 AESA radar systems training.

The East Coast Maintenance Trainer Set (MTS #2) has not yet been procured.

Note 3. Navy Electronic Classroom and Learning Resource Center infrastructure will not have to be modified to support AN/APG-79 training. AN/APG-79 AESA specific training will be provided via the CBTI, and other pertinent instructional media.

IV.B. COURSEWARE REQUIREMENTS

IV.B.1. TRAINING SERVICES

COURSE / TYPE OF TRAINING	SCHOOL LOCATION, UIC	NO. OF PERSONNEL	MAN WEEKS REQUIRED	DATE BEGIN
F/A-18E/F DT/OT Aircrew Initial Training [Cadre 1]	Boeing "Dome" St. Louis, XXXXX			Aug 03
F/A-18E/F DT/OT Aircrew Initial Training [Cadre 1]	Boeing "Dome" St. Louis, XXXXX			Jun 03
F/A-18E/F DT/OT Maintainer Initial Training [Cadre 1]	VX-31 China Lake, XXXXX			May 03
F/A-18E/F DT/OT Maintainer Initial Training [Cadre 1]	VX-9 China Lake, XXXXX			Apr 03
F/A-18E/F Fleet Aircrew Initial Training [Cadre 2]	Boeing "Dome" St. Louis, XXXXX			Oct 03
F/A-18E/F Fleet Aircrew Initial Training [Cadre 2]	Boeing "Dome" St. Louis, XXXXX			Sep 03
F/A-18E/F Fleet Maintainer Initial Training [Cadre 2]	Destination Activity			Oct 03
F/A-18E/F Fleet Maintainer Initial Training [Cadre 2]	VFA-122 E/F FRS West, XXXXX			Sep 03

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track E-102-0623)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F AESA Maintenance CBT and IETM Upgrade	1	Mar 05	Pending
F/A-18E/F AESA-related AMTCS CBT	1	Mar 05	Pending

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track E-102-0624)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F AESA Maintenance CBT and IETM Upgrade	1	Mar 05	Pending
F/A-18E/F AESA-related AMTCS CBT	1	Mar 05	Pending

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics Systems Difference Data Organizational Maintenance (Track E-102-0625)
TRAINING ACTIVITY: MTU 1038 NAMTRAU
LOCATION, UIC: NAS Lemoore, 66060

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F AESA Maintenance CBT and IETM Upgrade	1	Mar 05	Pending
F/A-18E/F AESA-related AMTCS CBT	1	Mar 05	Pending

CIN, COURSE TITLE: E-2A-06X1, F/A-18 Fleet Replacement Pilot Category 1 (Track E-2A-061X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2A-06X2, F/A-18 Fleet Replacement Pilot Category 2 (Track D-2A-062X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2A-06X2, F/A-18 Fleet Replacement Pilot Category 2 (Track E-2A-062X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: E-2A-06X3, F/A-18 Fleet Replacement Pilot Category 3 (Track D-2A-063X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2A-06X3, F/A-18 Fleet Replacement Pilot Category 3 (Track E-2A-063X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2A-06X4, F/A-18 Fleet Replacement Pilot Category 4 (Track D-2A-064X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2A-06X4, F/A-18 Fleet Replacement Pilot Category 4 (Track E-2A-064X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X1, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 1 (Track D-2D-081X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X1, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 1 (Track E-2D-081X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: E-2D-08X2, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 2 (Track D-2D-082X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X2, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 2 (Track E-2D-082X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X3, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 3 (Track D-2D-083X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X3, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 3 (Track E-2D-083X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X4, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 4 (Track D-2D-084X)
TRAINING ACTIVITY: VFA-174 E/F FRS-East
LOCATION, UIC: NAS Oceana, 65553

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

CIN, COURSE TITLE: E-2D-08X4, F/A-18F Combat Capable Weapons Systems Officer (WSO) Cat 4 (Track E-2D-084X)
TRAINING ACTIVITY: VFA-122 E/F FRS-West
LOCATION, UIC: NAS Lemoore, 09355

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F Aircrew Training CBT Upgrade	1	Jun 05	Pending

IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS

CIN, COURSE TITLE: C-102-9977, F/A-18E/F Avionics System (Initial) Organizational Maintenance (Track D-102-0623)
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F AESA Maintenance CBT and IETM Upgrade	1	Mar 05	Pending
F/A-18E/F AESA-related AMTCS CBT	1	Mar 05	Pending

CIN, COURSE TITLE: C-102-9978, F/A-18E/F Avionics System (Career) Organizational Maintenance (Track D-102-0624)
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F AESA Maintenance CBT and IETM Upgrade	1	Mar 05	Pending
F/A-18E/F AESA-related AMTCS CBT	1	Mar 05	Pending

CIN, COURSE TITLE: C-102-9979, F/A-18E/F Avionics Systems Difference Data Organizational Maintenance (Track D-102-0625)
TRAINING ACTIVITY: MTU 1039 NAMTRAU
LOCATION, UIC: NAS Oceana, 66045

TYPES OF MATERIAL OR AID	QTY REQD	DATE REQD	STATUS
F/A-18E/F AESA Maintenance CBT and IETM Upgrade	1	Mar 05	Pending
F/A-18E/F AESA-related AMTCS CBT	1	Mar 05	Pending

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PART V - MPT MILESTONES

COG CODE	MPT MILESTONES	DATE	STATUS
PDA	Designated F/A-18E/F AN/APG-79 AESA Program ACAT-1C	Jun 99	Complete
TSA	Conducted (AN/APG-73 Equipped) F/A-18E/F Aircraft Cadre Aircrew Training at NAS Lemoore	Sep 99	Complete
TSA	Delivered AN/APG-73 Equipped F/A-18E/F Aircraft to NAS Lemoore	Oct 99	Complete
TSA	Conducted (AN/APG-73 Equipped) F/A-18E/F Cadre Maintenance Training at NAS Lemoore	Nov 99	Complete
PDA	Delivered LRIP-1 (AN/APG-73 equipped) F/A-18E/F Aircraft	Dec 99	Complete
PDA	Selected New F/A-18E/F Radar from Competitive Sources (Raytheon Selected)	Dec 99	Complete
TSA	Delivered (AN/APG-73 Equipped) F/A-18E/F Aircrew Training Courseware	Apr 00	Complete
PDA	Received F/A-18E/F Production Go-Ahead	FY00	Complete
PDA	Developed AN/APG-79 AESA ORD #568-58-00	Nov 00	Complete
Raytheon	Developed AN/APG-79 AESA Prototype with PDR Delivery	Dec 00	Complete
PDA	Signed AN/APG-79 AESA EDM Contract	Feb 01	Complete
PDA	Achieved Program Milestone B	Jan 02	Approved
PDA	Begin AN/APG-79 AESA In-Line Delivery	Mar 02	Pending
PDA	Began (AN/APG-73 Equipped) F/A-18E/F First Deployment	Jun 02	Ongoing
TSA	Developed Draft NTSP	Feb 03	Complete
TSA	Distributed Draft NTSP for Fleet Review	Feb 03	Complete
PDA	Begin AN/APG-79 AESA DT/OT - First Flight to use Unique AESA-equipped "F-19" Aircraft	May 03	Pending
PDA	Award AN/APG-79 AESA LRIP I Contract	Jun 03	Pending
PDA	Obtain AN/APG-79 AESA Program Milestone C Authority to Begin Low Rate Initial Production	Jun 03	Pending
PDA	Attain F/A-18E/F Aircraft MSD	FY03	Pending
PDA	Begin AN/APG-79 AESA TECHEVAL	Feb 05	Pending
PDA	AN/APG-79 AESA PCA (Possibly moving to September 2005)	May 05	Pending
PDA	Begin AN/APG-79 AESA Interim Support Period (by OEM Raytheon) to continue until MSD Achieved	May 05	Pending
PDA	Begin AN/APG-79 AESA OPEVAL	Jan 06	Pending
PDA	Achieve AN/APG-79 AESA Initial Operating Capacity	Sep 06	Pending
PDA	Begin AN/APG-79 AESA Full Rate Production Design Review	Jan 07	Pending
PDA	Begin AN/APG-79 AESA First Deployment to 12 Aircraft Squadron	Sep 07	Pending
PDA	Achieve AN/APG-79 AESA Material Support Date	Sep 07	Pending

Note: Pending events supplied with "best estimate" tentative dates as of 10 December 2002. To be updated in future revisions.

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PART VI - DECISION ITEMS / ACTION REQUIRED

DECISION ITEM OR ACTION REQUIRED	COMMAND ACTION	DUE DATE	STATUS
Decision to strike aircraft designated E-4 to disassemble and re-deploy as MTS-2 at NAMTRAU Oceana	PMA205	Jan 03	Pending

NAVAIR

PART VII - POINTS OF CONTACT

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

NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL	TELEPHONE NUMBERS
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Mr. Dennis Schumacher Contracting Support Services for PMA205 Information Spectrum, Incorporated schumd@ispec.com	**COMM:** (240) 725-7871 **DSN:** NA **FAX:** (240) 725-7006
AZCM Kevin Green AMTCS Training Systems Manager NAVAIR, PMA205B1 greenkl@navair.navy.mil	**COMM:** (301) 757-8120 **DSN:** 757-8120 **FAX:** (301) 757-6941
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