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AN/SPN-46 (V) AUTOMATIC CARRIER LANDING SYSTEMS (ACLS), NAVY  
TRAINING SYSTEMS PLAN (NTSP), N88-NTSP-E-50-8206E/A

(a) OPNAVINST 1500.76

1. Subject NTSP is approved and forwarded per reference (a).
2. Subsequent NTSP review will examine both the effectiveness and efficiency of training outlined in this document.
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FT1 (CNET) (Code ETE323)  
FT13 (NATTC) Pensacola (Code 301, 303)  
FT78 (NETPDTC)(Code 034)

**APPROVED**

**NAVY TRAINING SYSTEM PLAN**

**FOR THE**

**AN/SPN-46(V) AUTOMATIC CARRIER**

**LANDING SYSTEM**

**N88-NTSP-E-50-8206E/A**

**NOVEMBER 1999**

## AN/SPN-46(V) AUTOMATIC CARRIER LANDING SYSTEM

### EXECUTIVE SUMMARY

The AN/SPN-46(V) Automatic Carrier Landing System (ACLS), also referred to as the Precision Approach and Landing System, provides the capability to simultaneously and automatically control two individual aircraft during the final approach and landing phase of aircraft carrier recovery operations. This automatic control capability enables aircraft pilots to make "hands-off" landings during instrument flight conditions. Although the AN/SPN-46(V) ACLS is designed primarily as an automatic landing system, it also provides manual control capabilities. The AN/SPN-46(V) is in Phase III (Production, Deployment, and Operational Support) of the Weapon System Acquisition Process.

The AN/SPN-46(V)1 ACLS, installed on all aircraft carriers, is currently being upgraded. The upgrades consist of system upgrades through the Navy's Product Improvement Program and installation of the Radar Doppler Video Processor. When these upgrades are completed, the AN/SPN-46(V)1 ACLS will be designated AN/SPN-46(V)3 ACLS.

The AN/SPN-46(V)1 ACLS is operated by Air Traffic Controllers, with Naval Enlisted Classification (NEC) 6902, assigned to the Carrier Air Traffic Control Center. Upgrades to the AN/SPN-46(V)1 ACLS will not cause any changes to current operator manpower.

The maintenance in support of the AN/SPN-46(V)1 ACLS is based on two levels of maintenance; organizational and depot. AN/SPN-46(V)1 ACLS organizational level maintenance is accomplished by Electronic Technicians with NEC 1590. No intermediate maintenance is required to support the AN/SPN-46(V)1 ACLS. The AN/SPN-46(V)3 ACLS will not cause any change to the current maintenance concept or manpower.

Operator and maintenance training for the AN/SPN-46(V)1 ACLS is currently being provided by the Naval Air Technical Training Center (NATTC) Pensacola, Florida. Training for the AN/SPN-46(V)3 will consist of difference training, and will also be provided by the NATTC Pensacola. AN/SPN-46(V)3 training information will be incorporated into the current course material. The incorporation of AN/SPN-46(V)3 ACLS information is expected to change current course length by adding an additional three weeks. Phasing out of the AN/SPN-46(V)1 ACLS will result in an undetermined decrease in course length.

**AN/SPN-46(V) AUTOMATIC CARRIER LANDING SYSTEM**

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AN/SPN-46(V) AUTOMATIC CARRIER LANDING SYSTEM

LIST OF ACRONYMS

AC	Air Traffic Controller
ACLS	Automatic Carrier Landing System
AMTCS	Aviation Maintenance Training Continuum System
BIT	Built-In Test
CATCC	Carrier Air Traffic Control Center
CBT	Computer Based Training
CIN	Course Identification Number
CINCLANTFLT	Commander in Chief, Atlantic Fleet
CINCPACFLT	Commander in Chief, Pacific Fleet
CM	Corrective Maintenance
CNET	Chief of Naval Education and Training
CNO	Chief of Naval Operations
DAIR	Direct Altitude Identity Readout
DT	Developmental Test
ET	Electronics Technician
FLOLS	Fresnel Lens Optical Landing System
FY	Fiscal Year
HUD	Head-Up Display
ILSP	Integrated Logistics Support Plan
ISEA	In-Service Engineering Agent
LSO	Landing Signal Officer
MRC	Maintenance Requirements Card
MSD	Material Support Date
MUTE	Multiplex Unit for Transmission Elimination
NA	Not Applicable
NATTC	Naval Air Technical Training Center
NAVAIRSYSCOM	Naval Air Systems Command
NAVAIRWARCENACDIV	Naval Air Warfare Center Aircraft Division

**AN/SPN-46(V) AUTOMATIC CARRIER LANDING SYSTEM**

**LIST OF ACRONYMS**

NAVPERSCOM	Navy Personnel Command
NEC	Navy Enlisted Classification
NSD	Navy Support Date
NTSP	Navy Training System Plan
OPNAV	Office of the Chief of Naval Operations
OPO	OPNAV Principal Official
OT	Operational Test
PALS	Precision Approach and Landing System
PIP	Product Improvement Program
PM	Preventive Maintenance
PMA	Program Manager, Air
PQS	Personnel Qualification Standards
RDVP	Radar Doppler Video Processor
RFT	Ready For Training
SRA	Shop Replaceable Assembly
TD	Training Device
TTE	Technical Training Equipment
ULSS	User's Logistics Support Summary
WRA	Weapon Replaceable Assembly

**AN/SPN-46(V) AUTOMATIC CARRIER LANDING SYSTEM**

**PREFACE**

This Approved Navy Training System Plan (NTSP) for the AN/SPN-46(V) Automatic Carrier Landing System (ACLS) has been developed by the Naval Air Systems Command (AIR 3.4.1) to update the Draft NTSP for the AN/SPN-46(V) Automatic Carrier Landing System (ACLS) dated April 1999. It complies with guidelines set forth in the Navy Training Requirements Documentation Manual OPNAV P-751-3-9-97. This NTSP incorporates changes submitted by Naval Air Systems Command, Program Manager, Air (PMA2053B1), Naval Air Warfare Center Aircraft Division, St. Inigoes (4.5.8.1.1), Commander, Naval Air Force, U.S. Pacific Fleet (N32A), and Commanding Officer, Naval Aviation Technical Training Command. It provides updated information on AN/SPN-46(V) ACLS upgrades, manpower, personnel, and training requirements.

**PART I - TECHNICAL PROGRAM DATA**

**A. NOMENCLATURE-TITLE-PROGRAM**

**1. Nomenclature-Title-Acronym.** AN/SPN-46(V) Automatic Carrier Landing System (ACLS)

**2. Program Element.** Training: 84731X and 84771X  
Hardware: 64504X

**B. SECURITY CLASSIFICATION**

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

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

- OPNAV Principal Official (OPO) Program Sponsor..... CNO (N885F)
- OPO Resource Sponsor ..... CNO (N885F)
- Developing Agency..... NAVAIRSYSCOM (PMA213)
- Training Agency ..... CINCLANTFLT  
CINCPACFLT  
CNET
- Training Support Agency..... NAVAIRSYSCOM (PMA205)
- Manpower and Personnel Mission Sponsor ..... CNO (N12)  
NAVPERSCOM (NPC-4, NPC-404, NPC-406)
- Director of Naval Training ..... CNO (N7)

**D. SYSTEM DESCRIPTION**

**1. Operational Uses.** The AN/SPN-46(V)1 ACLS, also referred to as the Precision Approach and Landing System (PALS), provides the capability to simultaneously and automatically control two individual aircraft during the final approach and landing phase of aircraft carrier recovery operations. This automatic control capability enables aircraft pilots to

make "hands-off" landings during instrument flight conditions. Although the AN/SPN-46(V)1 ACLS is designed primarily as an automatic landing system, it also provides manual control capabilities.

**2. Foreign Military Sales.** No foreign military sales are planned at this time.

**E. DEVELOPMENTAL TEST AND OPERATIONAL TEST.** Developmental Test (DT) and Operational Test (OT) for the AN/SPN-46(V)1 ACLS were completed in December 1989. The AN/SPN-46(V)3 ACLS does not require DT or OT.

**F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED.** The AN/SPN-46(V)1 ACLS is being upgraded to improve reliability and maintainability through the Product Improvement Program (PIP). Additional improvements will include the installation of the Radar Doppler Video Processor (RDVP). These modifications will be completed in two phases. The first phase will consist of upgrading the AN/SPN-46(V)1 system through the PIP. The second phase will include the installation of the RDVP. The system designation will be changed to the AN/SPN-46(V)3 upon completion of both phases.

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

**1. Functional Description.** The AN/SPN-46(V)1 ACLS provides safe and reliable final approach and landing of all carrier-based aircraft and is operable during daylight and darkness, with minimum interference from severe weather and sea conditions, and with no limitations due to low ceiling and visibility. The system is an integral part of the carrier landing system. It interfaces with the approach controller Carrier Air Traffic Control Center (CATCC) Direct Altitude Identity Readout (DAIR) System, which assigns the aircraft to be controlled. The AN/SPN-46(V)1 ACLS operates as a closed-loop system comprised of the AN/SPN-46(V)1, shipboard radios, and airborne components of the controlled aircraft.

The CATCC controls all aircraft from a distance of 50 nautical miles, through the initial descent, and positions the aircraft to enter the ACLS entry window for commencement of the final controlled approach. At this point, control of the aircraft is then passed to the AN/SPN-46(V)1 for the final portion of the approach to landing. Independent monitoring of aircraft under ACLS control is provided by the AN/SPN-41 Aircraft Instrument Landing System (AILS) Independent Landing Monitor (ILM), the Landing Signal Officer (LSO), and by the aircraft pilot's visual reference to the Fresnel Lens Optical Landing System (FLOLS). Each is independent of AN/SPN-46(V)1 operation.

**2. Physical Description.** Both the AN/SPN-46(V)1 ACLS and AN/SPN-46(V)3 ACLS consist of 26 units. Units number 12 and 14 are deleted by the upgrade, and numbers 27 and 28 added. For descriptions of the AN/SPN-46(V)1 ACLS individual units, refer to the User's Logistics Support Summary (ULSS), ULSS-ATC-001, dated 30 March 1994, and the Draft Integrated Logistics Support Plan (ILSP), ILSP-ATC-001 Revision A, dated June 1997. For

descriptions of the AN/SPN-46(V)3 ACLS individual units, refer to the Installation Control Drawings 17-40970, dated January 1998.

**3. New Development Introduction.** The AN/SPN-46(V)3 ACLS will be introduced as an upgrade to the AN/SPN-46(V)1 ACLS through the Navy's PIP for aircraft carriers currently in the fleet. The AN/SPN-46(V)3 ACLS will also be installed during production of future aircraft carriers.

**4. Significant Interfaces.** The AN/SPN-46(V)3 ACLS will interface with the following equipment:

- The AN/SPN-46(V)3 ACLS will provide stabilization data (ship's pitch, roll, and yaw) to either the FLOLS, or the AN/SPN-41 Independent Monitoring System, as selected by the switching hardware.
- The AN/SPN-46(V)3 will interface with the Ship's Motion Sensors for calibration and correlation of this data.
- The AN/SPN-46(V)3 ACLS will interface with the ship's anemometer equipment to obtain wind direction and speed data. The AN/SPN-46(V)3 ACLS will interface directly with two wind sensors for correlation and compilation of automatic compensation commands for the aircraft.
- The AN/SPN-46(V)3 ACLS will provide the LSO's Head-Up Display (HUD) with closing speed, true airspeed, aircraft side number, altitude error, lateral error, aircraft range, wave-off, mode indication, lock-on, and aircraft sink rate information for the nearest controlled aircraft.
- The AN/SPN-46(V)3 ACLS will interface with the CATCC DAIR to provide for the transition of aircraft control between the two systems. The CATCC DAIR interface will transfer altitude, azimuth, and identification information for all aircraft within the CATCC envelope. The CATCC DAIR interface will also be used to schedule aircraft into the AN/SPN-46(V)3 ACLS acquisition gate at a constant altitude and rate of up to one aircraft every 30 seconds.
- The AN/SPN-46(V)3 ACLS will have electrical and mechanical interfaces to the AN/SSQ-82(V) Multiplex Unit for Transmission Elimination (MUTE) System to provide the capability to control the AN/SPN-46(V)3 ACLS radar transmission from the MUTE System.
- The AN/URC-93 Ultra High Frequency Transceiver will provide two way data link to the aircraft and the AN/SPN-46(V)3 ACLS.
- The AN/SPN-46(V)3 ACLS will also provide the capability to interface with future network type systems, such as the Navigation Sensor System Interface and Integrated Communications and Advanced Networks.

**5. New Features, Configurations, or Material.** The AN/SPN-46(V)3 ACLS will employ state-of-the-art electronics to improve the reliability and maintainability of the AN/SPN-46(V)1 ACLS. Minor changes to the current mounting racks used for the AN/SPN-46(V)1 ACLS will be required.

## **H. CONCEPTS**

**1. Operational Concept.** The AN/SPN-46(V)1 ACLS is operated by Air Traffic Controllers (AC) with Naval Enlisted Classification (NEC) code 6902 assigned to the CATCC, during carrier air operations (launches and recoveries) as required. The AN/SPN-46(V)3 ACLS will not require any changes to the operational concept.

**2. Maintenance Concept.** The maintenance concept for the AN/SPN-46(V)1 ACLS is based on two levels - organizational and depot. No intermediate level of maintenance is required. The upgrade to the AN/SPN-46(V)3 configuration will not cause any change to the current maintenance concept.

**a. Organizational.** The AN/SPN-46(V)1 ACLS is maintained by personnel from the Electronics Technician (ET) rating with NEC 1590. Organizational level maintenance consists of both Preventive Maintenance (PM) and Corrective Maintenance (CM) actions. The AN/SPN-46(V)3 ACLS will be maintained the same as AN/SPN-46(V)1 ACLS.

**(1) Preventive Maintenance.** Organizational level PM in support of the AN/SPN-46(V)1 ACLS is accomplished per Maintenance Requirement Cards (MRCs) and maintenance manuals prepared for the system. PM consists of inspection, cleaning, lubrication, pressurization checks, calibration, and operational checks. AN/SPN-46(V)3 ACLS PM will be performed under the same concept as for the AN/SPN-46(V)1 ACLS.

**(2) Corrective Maintenance.** Organizational level CM in support of the AN/SPN-46(V)1 ACLS consists of fault isolation of Weapon Replaceable Assemblies (WRA) and Shop Replaceable Assemblies (SRA) using Built-In Test (BIT) Equipment and special purpose electronic test equipment. CM also includes removal and replacement of WRAs and SRAs, and operational test to verify repairs. AN/SPN-46(V)3 ACLS CM will be performed under the same concept as for the AN/SPN-46(V)1 ACLS.

**b. Intermediate.** No intermediate maintenance is required to support the AN/SPN-46(V)1 ACLS, and no intermediate maintenance will be required to support the AN/SPN-46(V)3 ACLS.

**c. Depot.** Depot level maintenance consists of repairs of WRAs and SRAs beyond the capability of organizational maintenance. The primary depot for the AN/SPN-46(V)1 and AN/SPN-46(V)3 ACLS is Naval Weapons Station, Seal Beach, California. Select overhaul work is also performed at the Norfolk Naval Shipyard, Portsmouth, Virginia.

**d. Interim Maintenance.** In-Service Engineering Agents (ISEA) provide technical assistance, on an as required basis, from Naval Air Warfare Center Aircraft Division (NAVAIRWARCENACDIV) (Code 4.5.8.1.1) Patuxent River, St. Inigoes, Maryland. The Navy Support Date (NSD) for the AN/SPN-46(V)3 ACLS is scheduled for Fiscal Year (FY)01.

**e. Life-Cycle Maintenance Plan.** Each of the individual units of the AN/SPN-46(V)1 ACLS and AN/SPN-46(V)3 ACLS has different rework cycles. Refer to ULSS-ATC-001, approved 30 March 1994, for individual unit rework information.

**3. Manning Concept.** The upgrade of the AN/SPN-46(V)1 ACLS and redesignation to the AN/SPN-46(V)3 ACLS will not require any change to current quantitative or qualitative manpower or watch station requirements. Refer to Part II of this NTSP for specific activities' manpower requirements.

**4. Training Concept.** Training for the AN/SPN-46(V)3 ACLS will consist of difference training and will be provided by the Naval Air Technical Training Center Pensacola, Florida. Follow-on training for the AN/SPN-46(V)3 ACLS will be incorporated into the current maintenance course C-103-2067, AN/SPN-46 PALS Maintenance Technician Pipeline, and operator training course C-222-2012, Carrier Air Traffic Control Center Operations, provided by NATTC Pensacola.

**a. Initial Training.** Initial training for the AN/SPN-46(V)1 has been completed. The ISEA, NAVAIRWARCENACDIV St. Inigoes, will assist NATTC Pensacola in developing the AN/SPN-46(V)3 training curriculum to be added to the current follow-on training courses, and will provide initial instructor training at NAVAIRWARCENACDIV Patuxent River. This training will consist of difference training for NATTC instructors only, and is expected to be provided in FY00.

**b. Follow-on Training.** Carrier Air Traffic Control Center Operations (NEC 6902), and Carrier Air Traffic Control Center Operations Fundamentals operator training courses for AC personnel will require minor changes. The changes to these courses should not cause a change to course length. Pipeline courses for ET personnel with NEC 1590 will require an additional three weeks of training to allow for changes as the AN/SPN-46(V)3 ACLS information is included.

<b>Title .....</b>	<b>Carrier Air Traffic Control Center Fundamentals</b>
CIN .....	C-222-2014
Model Manager ...	NATTC Pensacola
Description .....	This course provides apprentice-level Air Traffic Controllers (A1 school graduates) fundamental carrier air traffic control knowledge.
Location .....	NATTC Pensacola
Length .....	40 days

RFT date ..... Currently available for AN/SPN-46(V)1, will be Ready For Training (RFT) for AN/SPN-46(V)3 in FY01

Skill identifier..... No NEC awarded

TTE/TD ..... TD: AN/SPN-46(V)1 ACLS and AN/SPN-46(V)3 ACLS

Prerequisite ..... C-222-2010, Air Traffic Controller

**Title .....** **Carrier Air Traffic Control Center Operations**

CIN ..... C-222-2012

Model Manager ... NATTC Pensacola

Description ..... This course provides selected air traffic control personnel with basic knowledge and skills to perform carrier air traffic control team member air operations readiness, watch station, and system operation functions during carrier air operation evolutions.

Location ..... NATTC Pensacola

Length ..... 40 days

RFT date ..... Currently available for AN/SPN-46(V)1, will be RFT for AN/SPN-46(V)3 in FY01

Skill identifier..... AC 6902

TTE/TD ..... TD: AN/SPN-46(V)1 ACLS and AN/SPN-46(V)3 ACLS

Prerequisite ..... C-222-2010, Air Traffic Controller

Most organizational level maintenance courses are in the process of integrating Computer-Based Training (CBT) with its basic elements of Computer-Managed Instruction, Computer-Aided Instruction, Interactive Courseware, and Aviation Maintenance Training Continuum System (AMTCS) Electronic Modules into their curricula for classroom presentation and management. There are no current plans to implement CBT into AN/SPN-46(V)1 or AN/SPN-46(V)3 ACLS training. If this changes and CBT will be integrated, this information will be included in updates to this NTSP.

**Title .....** **AN/SPN-46 PALS Maintenance Technician Pipeline**

CIN ..... C-103-2067

Model Manager ... NATTC Pensacola

Description ..... This course provides training in the maintenance of the AN/SPN-46 PALS.

Location ..... NATTC Pensacola

Length ..... Currently 110 days. Course length will increase to 131 days to include both AN/SPN-46(V)1 and AN/SPN-46(V)3 system maintenance.

RFT date ..... Currently available for AN/SPN-46(V)1, RFT (estimate) for the AN/SPN-46(V)3 is second quarter FY01

Skill identifier ..... ET 1590

TTE/TD ..... TD: AN/SPN-46(V)1 ACLS and AN/SPN-46(V)3 ACLS

Prerequisite ..... A-100-0138, Electronics Technician Core A School  
A-100-0140, Electronics Technician Strand A School

**c. Student Profiles**

<b>SKILL IDENTIFIER</b>	<b>PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS</b>
AC 6902	° C-222-2010, Air Traffic Controller
ET 1590	° A-100-0138, Electronics Technician Core A School ° A-100-0140, Electronics Technician Strand A School

**d. Training Pipelines.** No new training pipelines are required to support the AN/SPN-46(V)3 ACLS.

**I. ON-BOARD (IN-SERVICE) TRAINING**

**1. Proficiency or Other Training Organic to the New Development.** Not Applicable (NA)

**2. Personnel Qualification Standards.** The AC personnel assigned to the CATCC use Personnel Qualification Standards (PQS). Senior AC personnel who have completed the PQS requirements are certified as individual PQS requirement qualifiers.

**3. Other On-Board or In-Service Training Packages.** NA

**J. LOGISTICS SUPPORT**

**1. Program Documentation.** The Draft ILSP-ATC-001 Revision A was completed 15 June 1999. The ULSS-ATC-001, approved 30 March 1994, will be updated to include the AN/SPN-46(V)3 configuration and delivered concurrent with hardware installation.

**2. Technical Data Plan.** Technical manuals currently available for the AN/SPN-46(V)1 ACLS will be updated with AN/SPN-46(V)3 ACLS information. This update is expected to be accomplished by first quarter FY00. Refer to Part IV.B.3 for current technical manuals.

**3. Test Sets, Tools, and Test Equipment.** All test sets, tools, and test equipment required to support the AN/SPN-46(V)1 and AN/SPN-46(V)3 ACLS are in place. Refer to section IV.A.1 for test sets, tools, and test equipment required to support the AN/SPN-46(V)1 ACLS and AN/SPN-46(V)3 ACLS.

**4. Repair Parts.** Repair parts are procured through the normal supply channels. The Navy Ships Parts Control Center, code 05942M, Mechanicsburg, Pennsylvania, is the primary inventory control point for the AN/SPN-46(V) ACLS. Material Support Date (MSD) for the AN/SPN-46(V)1 was achieved during first quarter FY91. NSD for the AN/SPN-46(V)1 was achieved during fourth quarter FY94. MSD for the AN-SPN-46(V)3 is currently planned for FY00 and NSD is currently planned for FY01.

**5. Human Systems Integration.** NA

## K. SCHEDULES

**1. Installation and Delivery Schedules.** Upgrades to the AN/SPN-46(V)1 will be accomplished in two phases. The first phase consists of upgrades through the PIP, and the second phase will consist of installing the RDVP. These two phases will be accomplished simultaneously whenever possible. The following is a schedule of these two phases, but is subject to change based on contractual issues. For information on the schedule and updates, contact ISEA St. Inigoes Code NAWCAD SI 3.1.4.1.

### INSTALLATION SCHEDULE (ACTIVITY AND YEAR)

ACTIVITY	FY99	FY00	FY01	FY02	FY03	FY04	FY05
CV-63 Kitty Hawk					PIP RDVP		
CVN-65 Enterprise				PIP RDVP			
CV-67 Kennedy		PIP RDVP					
CVN-68 Nimitz	PIP		RDVP				
CVN-69 Eisenhower			PIP RDVP				

<b>ACTIVITY</b>	<b>FY99</b>	<b>FY00</b>	<b>FY01</b>	<b>FY02</b>	<b>FY03</b>	<b>FY04</b>	<b>FY05</b>
CVN-70 Vinson		PIP RDVP					
CVN-71 Roosevelt				PIP RDVP			
CVN-72 Lincoln					PIP RDVP		
CVN-73 Washington			PIP RDVP				
CVN-74 Stennis			PIP RDVP				
CVN-75 Truman			PIP RDVP				
CVN-76 Reagan				PIP RDVP			
NATTC Pensacola		PIP RDVP				**	
ISEA St. Inigoes*							PIP

**Note:** USS Constellation (CV-64) is not included in the above chart and is not currently scheduled for PIP or RDVP.

\* The RDVP at ISEA St. Inigoes is the research and development RDVP, and installation was completed in FY98.

\*\* AN/SPN-46(V)1 components will be removed from NATTC Pensacola FY04.

**2. Ready For Operational Use Schedule.** The AN/SPN-46(V)3 will be ready for operational use at each activity when both phases are completed.

**3. Time Required to Install at Operational Sites.** Installation time for the PIP will be 12 weeks and installation time for the RDVP will be two weeks. Where possible these will be accomplished simultaneously.

**4. Foreign Military Sales and Other Source Delivery Schedule.** NA

**5. Training Device and Technical Training Equipment Delivery Schedule.** PIP and RDVP TTE is scheduled to be installed at NATTC Pensacola in fourth quarter FY00. Current plans call for the installation of the AN/SPN-46(V)3 unique components only, to allow for the

switching between the (V)1 and (V)3 configurations for training purposes. Requirements for spare modules for faulting will be coordinated between PMA205-3B1, NAWCAD St. Inigoes, and NATTC Pensacola. NATTC Pensacola will retain AN/SPN-46(V)1 equipment in addition to AN/SPN-46(V)3 upgrades until FY04 in order to conduct training on both versions.

**Note:** TTE will be upgraded to a complete AN/SPN-46(V)3 configuration at a future date to be determined when the need to teach the AN/SPN-46(V)1 is no longer required.

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

**M. RELATED NTSPs AND OTHER APPLICABLE DOCUMENTS**

<b>DOCUMENT OR NTSP TITLE</b>	<b>DOCUMENT OR NTSP NUMBER</b>	<b>PDA CODE</b>	<b>STATUS</b>
User Logistics Support Summary (ULSS) for AN/SPN-46(V)1	ULSS-ATC-001	PMA213	Approved 30 Mar 94
Integrated Logistic Support Plan for AN/SPN-46(V)1 and AN/SPN-46(V)3	ILSP-ATC-001 Revision A	PMA213	Draft 15 June 99
Installation Control Drawings	17-40970	PMA213	Approved January 98

## **PART II - BILLET AND PERSONNEL REQUIREMENTS**

The following elements are not affected by the AN/SPN-46(V) 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**

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

**SOURCE:** NAWCAD, SI 3.1.4.1

**DATE:** 6/1/99

ACTIVITY, UIC	PFYs	CFY9	FY00	FY01	FY02	FY03
OPERATIONAL ACTIVITIES - NAVY						
USS John F. Kennedy (CV-67)	09843	1	0	0	0	0
CVN East Coast		5	0	0	0	0
USS Kitty Hawk (CV-63)	09876	1	0	0	0	0
CVN West Coast		4	0	0	0	0
USS Ronald Reagan (CVN-76)	22178	0	0	0	1	0
<b>TOTAL:</b>		11	0	0	1	0
FLEET SUPPORT ACTIVITIES - NAVY						
COMNAVSAFYCEN, Norfolk	48570	1	0	0	0	0
FASOTRAGRUDET, Norfolk	35945	1	0	0	0	0
Fleet Technical Support Center, Norfolk	0033A	1	0	0	0	0
ISEA St. Inigoes	64485	1	0	0	0	0
NAS Cecil Field	30780	1	0	0	0	0
FACSFAC Pearl Harbor	43583	1	0	0	0	0
Fleet Technical Support Center, Everett	55232	1	0	0	0	0
NAS Lemoore	63042	1	0	0	0	0
NAS North Island	00246	1	0	0	0	0
NAVIFMAC Pearl Harbor	39290	1	0	0	0	0
<b>TOTAL:</b>		10	0	0	0	0

**Note 1:** The above Fleet Support Activities have NEC 6902 and 1590 personnel attached. Operational activities include CVN-76 USS Ronald Reagan pre-commissioning crew in FY02, but do not include CV-64 USS Constellation.

**Note 2:** This section of the AN/SPN-46(V) NTSP is a compilation of two NECs, the CATCC Air Traffic Controller (6902) and the AN/SPN-46(V) Radar Technician (1590). The addition of the AN/SPN-46(V) to the CATCC does not affect the required workload for the controller. The controllers are not dedicated to the AN/SPN-46(V) and therefore the training requirements will remain the same.

**Note 3:** This section of the AN/SPN-46(V) NTSP is presented by NEC for ease of understanding. It was developed to establish the total requirements for AC and ET communities. The requirements are to train personnel in the USN to receive an NEC to fill a billet.

**Note 4:** Billets listed in paragraph II.A.1.b for CVN East Coast and CVN West Coast are manning requirements per ship and are not a cumulative total. CVN East Coast includes CVN-65, CVN-69, CVN-71, CVN-73, and CVN-75. CVN West Coast includes CVN-68, CVN-70, CVN-72, and CVN-74.

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETTS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
OPERATIONAL ACTIVITIES - NAVY					
<b>USS John F. Kennedy (CV-67), 09843</b>					
ACDU	0	1	ACCS	6902	
	0	1	ACC	6902	
	0	4	AC1	6902	
	0	11	AC2	6902	
	0	6	AC3	6902	
	0	1	ETC	1590	
	0	1	ET2	1590	
	0	2	ET3	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>27</b>			
<b>CVN East Coast</b>					
ACDU	0	1	ACCS	6902	
	0	1	ACC	6902	
	0	4	AC1	6902	
	0	11	AC2	6902	
	0	6	AC3	6902	
	0	1	ETC	1590	
	0	1	ET2	1590	
	0	2	ET3	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>27</b>			
<b>USS Kitty Hawk (CV-63), 09876</b>					
ACDU	0	1	ACCS	6902	
	0	1	ACC	6902	
	0	4	AC1	6902	
	0	11	AC2	6902	
	0	6	AC3	6902	
	0	1	ETC	1590	
	0	1	ET2	1590	
	0	2	ET3	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>27</b>			
<b>CVN West Coast</b>					
ACDU	0	1	ACCS	6902	
	0	1	ACC	6902	
	0	4	AC1	6902	
	0	11	AC2	6902	
	0	6	AC3	6902	
	0	1	ETC	1590	
	0	1	ET2	1590	
	0	2	ET3	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>27</b>			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>USS Ronald Reagan (CVN-76), 22178, FY02 Increment</b>					
ACDU	0	1	ACCS	6902	
	0	1	ACC	6902	
	0	4	AC1	6902	
	0	11	AC2	6902	
	0	6	AC3	6902	
	0	1	ETC	1590	
	0	1	ET2	1590	
	0	2	ET3	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>27</b>			
FLEET SUPPORT ACTIVITIES - NAVY					
<b>COMNAVSAFYCEN, Norfolk, 48570</b>					
ACDU	0	1	ACCS	6902	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>1</b>			
<b>FASOTRAGRUDET, Norfolk, 35945</b>					
ACDU	0	1	ACCS	6902	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>1</b>			
<b>Fleet Technical Support Center, Norfolk, 0033A</b>					
ACDU	0	1	ETC	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>1</b>			
<b>ISEA St. Inigoes, 64485</b>					
ACDU	0	1	ACCM	6902	
	0	3	ACC	6902	
	0	2	ET2	1590	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>6</b>			
<b>NAS Cecil Field, 30780</b>					
ACDU	0	1	ACCS	6902	
	0	3	ACC	6902	
	0	12	AC1	6902	
	0	25	AC2	6902	
	0	11	AC3	6902	
	0	10	ACAN	6902	
<b>ACTIVITY TOTAL:</b>	<b>0</b>	<b>62</b>			

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

ACTIVITY, UIC, PHASING INCREMENT	BILLETS		DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS
	OFF	ENL			
<b>FACSFAC Pearl Harbor, 43583</b>					
ACDU	0	1	ACCS	6902	
	0	1	ACC	6902	
	0	2	AC1	6902	
	0	4	AC2	6902	
	0	4	AC3	6902	
<b>ACTIVITY TOTAL:</b>	0	12			
<b>Fleet Technical Support Center, Everett, 55232</b>					
ACDU	0	1	ETC	1590	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>NAS Lemoore, 63042</b>					
ACDU	0	1	ACCM	6902	
<b>ACTIVITY TOTAL:</b>	0	1			
<b>NAS North Island, 00246</b>					
ACDU	0	1	ACCM	6902	
	0	4	ACC	6902	
	0	8	AC1	6902	
	0	20	AC2	6902	
	0	13	AC3	6902	
	0	4	ACAN	6902	
<b>ACTIVITY TOTAL:</b>	0	50			
<b>NAVIFMAC Pearl Harbor, 39290</b>					
ACDU	0	1	ET2	1590	
<b>ACTIVITY TOTAL:</b>	0	1			

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

DESIG/ RATING	PNEC/SNEC PMOS/SMOS	PFYs		CFY99		FY00		FY01		FY02		FY03	
		OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NAVY OPERATIONAL ACTIVITIES - ACDU													
ACCS	6902		11	0		0		0		1		0	
ACC	6902		11	0		0		0		1		0	
AC1	6902		44	0		0		0		4		0	
AC2	6902		121	0		0		0		11		0	
AC3	6902		66	0		0		0		6		0	
ETC	1590		11	0		0		0		1		0	
ET2	1590		11	0		0		0		1		0	
ET3	1590		22	0		0		0		2		0	
NAVY FLEET SUPPORT ACTIVITIES - ACDU													
ACCM	6902		3	0		0		0		0		0	
ACCS	6902		4	0		0		0		0		0	
ACC	6902		11	0		0		0		0		0	
AC1	6902		22	0		0		0		0		0	
AC2	6902		49	0		0		0		0		0	
AC3	6902		28	0		0		0		0		0	
ACAN	6902		14	0		0		0		0		0	
ETC	1590		2	0		0		0		0		0	
ET2	1590		3	0		0		0		0		0	
<b>SUMMARY TOTALS:</b>													
NAVY OPERATIONAL ACTIVITIES - ACDU													
			297	0		0		0		27		0	
NAVY FLEET SUPPORT ACTIVITIES - ACDU													
			136	0		0		0		0		0	
<b>GRAND TOTALS:</b>													
NAVY - ACDU													
			433	0		0		0		27		0	

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

DESIG RATING	PNEC/SNEC PMOS/SMOS		PFYs		CFY99		FY00		FY01		FY02		FY03	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL

TRAINING ACTIVITY, LOCATION, UIC: NATTC, Pensacola, Florida, 63093

**INSTRUCTOR BILLETS**

ACDU														
ACC	6902	9502	0	6	0	6	0	6	0	6	0	6	0	6
AC1	6902	9502	0	18	0	18	0	18	0	18	0	18	0	18
ETC	1590	9502	0	0	0	0	0	1	0	1	0	1	0	1
ET1	1590	9502	0	2	0	2	0	1	0	1	0	1	0	1
ET2	1590	9502	0	1	0	1	0	1	0	1	0	1	0	1

**SUPPORT BILLETS**

ACDU														
ET1	1590	1578	0	1	0	1	0	0	0	0	0	0	0	0
<b>TOTAL:</b>			0	28	0	28	0	27	0	27	0	27	0	27

**II.A.4. CHARGEABLE STUDENT BILLET REQUIREMENTS**

ACTIVITY, LOCATION, UIC	USN/ USMC	PFYs		CFY9		FY00		FY01		FY02		FY03	
		OFF	ENL										
NATTC, Pensacola, Florida, 63093	NAVY		13.6		13.6		13.6		14.2		16.1		14.6
<b>SUMMARY TOTALS:</b>													
	NAVY		13.6		13.6		13.6		14.2		16.1		14.6
<b>GRAND TOTALS:</b>													
			13.6		13.6		13.6		14.2		16.1		14.6

**II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS**

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY99		FY00		FY01		FY02		FY03	
				+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM

a. OFFICER - USN Not applicable

**b. ENLISTED - USN**

Operational Billets ACDU and TAR

ACCS	6902		11	0	11	0	11	0	11	1	12	0	12
ACC	6902		11	0	11	0	11	0	11	1	12	0	12
AC1	6902		44	0	44	0	44	0	44	4	48	0	48
AC2	6902		121	0	121	0	121	0	121	11	132	0	132
AC3	6902		66	0	66	0	66	0	66	6	72	0	72
ETC	1590		11	0	11	0	11	0	11	1	12	0	12
ET2	1590		11	0	11	0	11	0	11	1	12	0	12
ET3	1590		22	0	22	0	22	0	22	2	24	0	24

Fleet Support Billets ACDU and TAR

ACCM	6902		3	0	3	0	3	0	3	0	3	0	3
ACCS	6902		4	0	4	0	4	0	4	0	4	0	4
ACC	6902		11	0	11	0	11	0	11	0	11	0	11
AC1	6902		22	0	22	0	22	0	22	0	22	0	22
AC2	6902		49	0	49	0	49	0	49	0	49	0	49
AC3	6902		28	0	28	0	28	0	28	0	28	0	28
ACAN	6902		14	0	14	0	14	0	14	0	14	0	14
ETC	1590		2	0	2	0	2	0	2	0	2	0	2
ET2	1590		3	0	3	0	3	0	3	0	3	0	3

Staff Billets ACDU and TAR

ACC	6902	9502	6	0	6	0	6	0	6	0	6	0	6
AC1	6902	9502	18	0	18	0	18	0	18	0	18	0	18
ETC	1590	9502	0	0	0	1	1	0	1	0	1	0	1
ET1	1590	1578	1	0	1	-1	0	0	0	0	0	0	0
ET1	1590	9502	2	0	2	-1	1	0	1	0	1	0	1
ET2	1590	9502	1	0	1	0	1	0	1	0	1	0	1

Chargeable Student Billets ACDU and TAR

			0	0	0	11	11	3	14	2	16	-1	15
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**TOTAL USN ENLISTED BILLETS:**

Operational			297	0	297	0	297	0	297	27	324	0	324
Fleet Support			136	0	136	0	136	0	136	0	136	0	136
Staff			28	0	28	-1	27	0	27	0	27	0	27

**II.A.5. ANNUAL INCREMENTAL AND CUMULATIVE BILLETS**

DESIG/ RATING	PNEC/ PMOS	SNEC/ SMOS	BILLET BASE	CFY99		FY00		FY01		FY02		FY03	
				+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM	+/-	CUM
Chargeable Student			14	0	14	0	14	0	14	2	16	-1	15

c. OFFICER - USMC                      Not applicable

d. ENLISTED - USMC                      Not applicable

**II.B. PERSONNEL REQUIREMENTS**

**II.B.1. ANNUAL TRAINING INPUT REQUIREMENTS**

**CIN, COURSE TITLE:** C-103-2067, AN/SPN-46 PALS Maintenance Technician Pipeline  
**COURSE LENGTH:** 16.0 Weeks **TOUR LENGTH:** 36 Months  
**ATTRITION FACTOR:** Navy: 10% **BACKOUT FACTOR:** 0.32

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY99		FY00		FY01		FY02		FY03	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC, Pensacola, Florida												
	NAVY	ACDU		8		8		9		10		9
		TOTAL:		8		8		9		10		9

\* **Note:** Course length will increase to 19 weeks in FY01.

**CIN, COURSE TITLE:** C-222-2012, Carrier Air Traffic Control Center Operations  
**COURSE LENGTH:** 6.0 Weeks **TOUR LENGTH:** 36 Months  
**ATTRITION FACTOR:** Navy: 10% **BACKOUT FACTOR:** 0.12

TRAINING ACTIVITY	SOURCE	ACDU/TAR SELRES	CFY99		FY00		FY01		FY02		FY03	
			OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL
NATTC, Pensacola, Florida												
	NAVY	ACDU		109		109		111		127		115
		TOTAL:		109		109		111		127		115

## PART III - TRAINING REQUIREMENTS

The following elements are not affected by the AN/SPN-46(V) and, therefore, are not included in Part III of this NTSP:

III.A.1. Initial Training Requirements

III.A.2. Follow-on Training

III.A.2.b. Planned Courses

III.A.2.c. Unique Courses

III.A.3. Existing Training Phased Out

## **PART III - TRAINING REQUIREMENTS**

### **III.A.1. INITIAL TRAINING REQUIREMENTS**

**Note:** Formal training for the AN/SPN-46(V)1 is in place and is being provided by the NATTC, Pensacola, Florida. The ISEA, NAVAIRWARCENACDIV St. Inigoes, will assist the NATTC Pensacola in developing the AN/SPN-46(V)3 training curriculum to be added to the current follow-on training courses, and will provide initial instructor training at NAVAIRWARCENACDIV Patuxent River. Initial training is expected to be provided in FY00, and follow-on training is expected to be provided in FY01.

**III.A.2. FOLLOW-ON TRAINING**

**III.A.2.a. EXISTING COURSES**

**CIN, COURSE TITLE:** C-103-2067, AN/SPN-46 PALS Maintenance Technician Pipeline  
**TRAINING ACTIVITY:** NATTC  
**LOCATION, UIC:** Pensacola, Florida, 63093

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

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	8		8		9		10		9	ATIR
	7		7		8		9		8	Output
	2.3		2.3		2.6		2.9		2.6	AOB
	2.3		2.3		2.6		2.9		2.6	Chargeable

**CIN, COURSE TITLE:** C-222-2012, Carrier Air Traffic Control Center Operations  
**TRAINING ACTIVITY:** NATTC  
**LOCATION, UIC:** Pensacola, Florida, 63093

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

CFY99		FY00		FY01		FY02		FY03		
OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	OFF	ENL	
	109		109		111		127		115	ATIR
	98		98		100		114		104	Output
	11.3		11.3		11.6		13.2		12.0	AOB
	11.3		11.3		11.6		13.2		12.0	Chargeable

## **PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS**

The following elements are not affected by the AN/SPN-46(V) and, therefore, are not included in Part IV of this NTSP:

### IV.B. Courseware Requirements

#### IV.B.1. Training Services

### 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

**PART IV - TRAINING LOGISTICS SUPPORT REQUIREMENTS**

**IV.A. TRAINING HARDWARE**

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

**CIN, COURSE TITLE:** C-103-2046, AN/SPN-46 PALS Maintenance (Track C-103-2067)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** Pensacola, Florida, 63093

<b>ITEM NO.</b>	<b>EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>GFE CFE</b>	<b>STATUS</b>
<b>TTE</b>					
026	AN/SPN-46(V)1	1	Jan 91	GFE	On board
027	AN/SPN-46(V)3	1	Sep 00	GFE	Pending
<b>GPTE</b>					
015	Digital Multimeter, 328B Model 163	2	Jan 91	GFE	On board
016	Multimeter, 260-6XLP	2	Jan 91	GFE	On board
017	Oscilloscope, AN/USM-425	1	Jan 91	GFE	On board
018	Pulse Generator, 114A	2	Jan 91	GFE	On board
019	Signal Generator, 145	2	Jan 91	GFE	On board
020	Frequency Counter, 5328AF-H99	2	Jan 91	GFE	On board
<b>ST</b>					
001	Socket, 1206482	1	Jan 91	GFE	On board
002	Extension, 1206485-1	1	Jan 91	GFE	On board
003	Extension, 1206485-2	1	Jan 91	GFE	On board
004	Bit, 1206487	1	Jan 91	GFE	On board
005	Wrench, 1206490	1	Jan 91	GFE	On board
006	Screwdriver, 1206491	1	Jan 91	GFE	On board
007	Extractor, 1206484	1	Jan 91	GFE	On board
008	Bit Assembly, 543068	1	Jan 91	GFE	On board
009	SEM Type 1A Card Extractor, 06-7898-0101	3	Jan 91	GFE	On board
010	SEM Type 2A Card Extractor, 06-7898-10102	3	Jan 91	GFE	On board

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

011	AN/AYK-14(V) SRA Card Extractor, 14761500-01	2	Jan 91	GFE	On board
012	Antenna Spin Motor Phase Adjustment Wrench, 17-20072-1	2	Jan 91	GFE	On board
013	MAMs Carrying Case, 17-20340-1	1	Jan 91	GFE	On board
014	Special Tools Carrying Case, AA892B030	1	Jan 91	GFE	On board
028	Maintenance Assist Modules (MAMs)	2 sets	Jan 91	GFE	On board

**SPETE**

021	SEM Type 1A Card Extender, 0102-752-02	3	Jan 91	GFE	On board
022	SEM Type 2A Card Extender, 0102-754-02	3	Jan 91	GFE	On board
023	AN/ASM-607(V)7 Memory Loader Verifier	1	Jan 91	GFE	On board
024	TS-3098/SPN Radar Test Set	1	Jan 91	GFE	On board
025	TS-4176/UPM Radar Test Set	1	Jan 91	GFE	On board

**CIN, COURSE TITLE:** C-222-2012, Carrier Air Traffic Control Center Operations

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** Pensacola, Florida, 63093

ITEM NO.	EQUIPMENT / TYPE OR RANGE OF REPAIR PARTS	QTY REQD	DATE REQD	GFE CFE	STATUS
<b>TTE</b>					
026	AN/SPN-46(V)1	1	Jan 91	GFE	On board
027	AN/SPN-46(V)3	1	Sep 00	GFE	Pending

**IV.A.2. TRAINING DEVICES**

**DEVICE:** 15G30 Simulator  
**DESCRIPTION:** A system simulation utilizing computer voice recognition and response. Front panel displays, function and operation are identical to the actual equipment.  
**MANUFACTURER:** Logicon  
**CONTRACT NUMBER:** N61339-86-C-0108  
**TEE STATUS:** NA  
**TRAINING ACTIVITY:** NATTC  
**LOCATION, UIC :** Pensacola, Florida, 63093

<b>QTY</b>	<b>DATE</b>	<b>RFT</b>	<b>STATUS</b>	<b>COURSES</b>
<b>REQD</b>	<b>REQD</b>	<b>DATE</b>	<b>STATUS</b>	<b>SUPPORTED</b>
1	Apr 90	Apr 90	On board	C-222-2012

**IV.B.2. CURRICULA MATERIALS AND TRAINING AIDS**

**CIN, COURSE TITLE:** C-103-2046, AN/SPN-46 PALS Maintenance (Track C-103-2067)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** Pensacola, Florida, 63093

<b>TYPES OF MATERIAL OR AID</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
Instructor Guides	10	Jan 91	On board
Student Guides	100	Jan 91	On board

**CIN, COURSE TITLE:** C-222-2012, Carrier Air Traffic Control Center Operations

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** Pensacola, Florida, 63093

<b>TYPES OF MATERIAL OR AID</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
Instructor Guides	10	Jan 91	On board
Student Guides	100	Jan 91	On board

**IV.B.3. TECHNICAL MANUALS**

**CIN, COURSE TITLE:** C-103-2046, AN/SPN-46 PALS Maintenance (Track C-103-2067)

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** Pensacola, Florida, 63093

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
0913-LP-281-7300 Volume 1, Part 1, General Information	Hard copy	30	Jan 91	On board
0913-LP-281-7400 Volume 1, Part 2, Operating Instructions	Hard copy	30	Jan 91	On board
0913-LP-281-7600 Volume 1, Part 3, Installation	Hard copy	30	Jan 91	On board
0913-LP-281-7700 Volume 2, Part 1, System Functional Diagrams	Hard copy	30	Jan 91	On board
0913-LP-281-7800 Volume 2, Part 2, System Functional Diagrams	Hard copy	30	Jan 91	On board
0913-LP-281-7900 Volume 2, Part 3, Display Subsystem, Units 1, 2, and 15 Hardware Information	Hard copy	30	Jan 91	On board
0913-LP-281-8100 Volume 2, Part 4, Ancillary Equipment Subsystem Hardware Information	Hard copy	30	Jan 91	On board
0913-LP-281-8200 Volume 2, Part 5, Central Computer Subsystem Hardware Information	Hard copy	30	Jan 91	On board
0913-LP-281-8300 Volume 2, Part 6, Radar/SMS Subsystem Hardware Information	Hard copy	30	Jan 91	On board

**CIN, COURSE TITLE:** C-222-2012, Carrier Air Traffic Control Center Operations

**TRAINING ACTIVITY:** NATTC

**LOCATION, UIC:** Pensacola, Florida, 63093

<b>TECHNICAL MANUAL NUMBER / TITLE</b>	<b>MEDIUM</b>	<b>QTY REQD</b>	<b>DATE REQD</b>	<b>STATUS</b>
0913-LP-281-7400 Volume 1, Part 2, Operating Instructions	Hard copy	50	Apr 99	On board

**PART V - MPT MILESTONES**

<b>COG CODE</b>	<b>MPT MILESTONES</b>	<b>DATE</b>	<b>STATUS</b>
PDA	Performed analysis of manpower, personnel, and training requirements	Oct 81	Completed
PDA	Distributed Draft NTSP	Jan 82	Completed
PDA	Held NTSP Conference	Apr 82	Completed
PDA	Submitted Proposed NTSP to CNO	Jul 82	Completed
DCNO (MPT)	Promulgated Approved NTSP	Sep 82	Completed
DCNO	Established manpower and training resource requirements	Jan 83	Completed
TSA	Began initial training	Aug 85	Completed
PDA	Awarded production contract	Oct 86	Completed
TA	Awarded factory training contract	Oct 87	Completed
TA	Awarded curriculum material contract	Dec 87	Completed
TA	Began follow-on training	Apr 91	Completed
PDA	Achieved MSD for AN/SPN-46(V)1	Dec 90	Completed
TSA	Delivered curricula materials	Oct 91	Completed
TSA	Delivered Technical Training Equipment	Oct 91	Completed
PDA	Achieved NSD for AN/SPN-46(V)1	Sep 94	Completed
PDA	Began upgrades of AN/SPN-46(V)1 to AN/SPN-46(V)3 on Aircraft Carriers	FY98	Ongoing
PDA	Achieve Material Support Date for AN/SPN-46(V)3	FY00	Pending
TA	Begin AN/SPN-46(V)3 initial instructor training	FY00	Pending
TA	Begin AN/SPN-46(V)3 follow-on training	FY00	Pending
TSA	Upgrade Technical Training Equipment to AN/SPN-46(V)3	FY00	Pending
PDA	Achieve Navy Support Date for AN/SPN-46(V)3	FY01	Pending

PART VI - ACTION ITEMS / ACTION REQUIRED

ACTION ITEM OR  
ACTION REQUIRED

COMMAND ACTION    DUE DATE    STATUS

None

PART VII - POINTS OF CONTACT

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