

INITIAL
NAVY TRAINING SYSTEM PLAN
FOR THE
A/F 37T-21 AIRCRAFT ENGINE
COMPONENTS TEST STAND

N88-NTSP-A-50-0005/I

MAY 2000

A/F 37T-21 AIRCRAFT ENGINE COMPONENTS TEST STAND

EXECUTIVE SUMMARY

The A/F 37T-21 Aircraft Engine Components Test Stand (AECTS) is an integrated test system that provides the capability of dynamic testing of aircraft engine driven accessories such as generators and generator drive systems. Initial Operational Capability is scheduled for February 2001. Production approval, Milestone III, was reached in April 2000.

This is a Commercial Off-The-Shelf/Non-Developmental Item procurement. The Navy is procuring 59 AECTS units to replace the MA-2 and MA-3 test stands. The maintenance concept for the AECTS is intermediate to commercial depot. The commercial depot is the original equipment manufacturer, Testek Incorporated, Livonia, Michigan. Navy and Marine Corps personnel will operate and maintain the AECTS at Aircraft Intermediate Maintenance Departments and Marine Aviation Logistics Squadrons in accordance with the approved Maintenance Plan.

Naval Air Technical Data and Engineering Service Command (NATEC) technical representatives who have attended factory training may provide On-the-Job Training to operator and/or maintainers upon request. The contractor will be obligated to provide technical assistance as required in conjunction with NATEC personnel and will be viewed as the primary technical assistance focal point.

First article testing was completed in January 2000. Technical Evaluation at the Naval Air Warfare Center Aircraft Division, Patuxent River, Maryland, began in October 1999 and was completed April 2000. The contract for the initial production option was awarded in April 2000.

Training for the AECTS will include initial training for NATEC and cadre instructor personnel by the contractor, Testek Incorporated. Follow-on training for the AECTS will be provided through courses C-602-XXXA, A/F 37T-21 Aircraft Engine Components Test Stand Operator; and C-602-XXXB, A/F 37T-21 Aircraft Engine Components Test Stand Maintainer at Maintenance Training Unit 3001, MCAS Cherry Point, North Carolina.

A/F 37T-21 AIRCRAFT ENGINE COMPONENTS TEST STAND

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A/F 37T-21 AIRCRAFT ENGINE COMPONENTS TEST STAND

LIST OF ACRONYMS

| | |
|--------|--|
| AE | Aviation Electrician's Mate |
| AECTS | Aircraft Engine Components Test Stand |
| AIMD | Aircraft Intermediate Maintenance Department |
| AMTCS | Aviation Maintenance Training Continuum System |
| BIT | Built-In Test |
| CIN | Course Identification Number |
| CMC | Commandant Marine Corps |
| CNO | Chief of Naval Operations |
| COTS | Commercial Off-The-Shelf |
| FREST | Fleet Replacement Enlisted Skills Training |
| IMA | Intermediate Maintenance Activity |
| IOC | Initial Operational Capability |
| MALS | Marine Aviation Logistics Squadron |
| MATMEP | Maintenance Training Management and Evaluation Program |
| MCAF | Marine Corps Air Facility |
| MCAS | Marine Corps Air Station |
| MCB | Marine Corps Base |
| MCCDC | Marine Corps Combat Development Command |
| MOS | Military Occupational Specialty |
| MTBF | Mean Time Between Failure |
| MTIP | Maintenance Training Improvement Program |
| MTTR | Mean Time To Repair |
| MTU | Maintenance Training Unit |
| NA | Not Applicable |
| NAF | Naval Air Facility |
| NAMP | Naval Aviation Maintenance Program |
| NAMTG | Naval Air Maintenance Training Group |
| NAS | Naval Air Station |
| NATEC | Naval Air Technical Data and Engineering Service Command |
| NEC | Navy Enlisted Classification |
| NTSP | Navy Training System Plan |
| NWTS | Naval Weapons Test Squadron |

A/F 37T-21 AIRCRAFT ENGINE COMPONENTS TEST STAND

LIST OF ACRONYMS

| | |
|------|----------------------------------|
| OEM | Original Equipment Manufacturer |
| OJT | On-the-Job Training |
| OPO | OPNAV Principal Official |
| PMA | Program Manager, Air |
| PSE | Peculiar Support Equipment |
| RFT | Ready For Training |
| TBD | To Be Determined |
| TD | Training Device |
| TTE | Technical Training Equipment |
| ULSS | User's Logistics Support Summary |
| UUT | Unit Under Test |
| VSD | Variable Speed Drive |

A/F 37T-21 AIRCRAFT ENGINE COMPONENTS TEST STAND

PREFACE

This Initial Navy Training System Plan (NTSP) is an early look at the A/F 37T-21 Aircraft Engine Components Test Stand (AECTS) program and was formerly known as the A/F 37T-16 Aircraft Generator Test Stand. Although an Initial NTSP for the A/F 37T-16 Aircraft Generator Test Stand was developed in August 1999, this is the first iteration Initial NTSP for the AECTS program as it is currently structured. It explores the various employment and support alternatives currently under consideration. Since it is the first NTSP and still relatively early in the acquisition process, some definitive data was unavailable for inclusion in this version.

PART I - TECHNICAL PROGRAM DATA

A. NOMENCLATURE-TITLE-PROGRAM

1. Nomenclature-Title-Acronym. A/F 37T-21 Aircraft Engine Components Test Stand (AECTS)

2. Program Element. 24161N

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 (N889H)
- OPO Resource Sponsor CNO (N889H4)
- Marine Corps Program Sponsor..... CMC (ASL-34)
- Developing Agency NAVAIRSYSCOM (PMA260)
- Training Agency..... CINCLANTFLT
CINCPACFLT
CNET
COMNAVRESFOR
- Training Support Agency..... NAVAIRSYSCOM (PMA205)
- Manpower and Personnel Mission Sponsor CNO (N12)
NAVPERSCOM (PERS-4, PERS-404)
- Director of Naval Training CNO (N7)
- Commander, Reserve Program Manager..... COMNAVRESFOR (AIR 1.0R)
- Marine Corps Force Structure..... MCCDC (C53)

D. SYSTEM DESCRIPTION

1. Operational Uses. The AECTS is an integrated test system that will provide dynamic testing capability of aircraft engine driven accessories such as generators and generator drive systems. It will also provide for the testing of a wide variety of aircraft electrical components. The AECTS will be deployed afloat and ashore at Navy Aircraft Intermediate Maintenance Departments (AIMD) and Marine Aviation Logistics Squadrons (MALS) for validating ready for issue status, verifying a repair action, and troubleshooting and fault isolating generator system components. Initial Operational Capability (IOC) is scheduled for February 2001.

2. Foreign Military Sales. Not Applicable (NA)

E. DEVELOPMENTAL TEST AND OPERATIONAL TEST. First article testing was completed January 2000. Technical Evaluation at the Naval Air Warfare Center Aircraft Division, Patuxent River, Maryland, began in October 1999 and was completed in April 2000. Contract awarded April 2000 for initial production option.

F. AIRCRAFT AND/OR EQUIPMENT/SYSTEM/SUBSYSTEM REPLACED. The AECTS will replace the MA-2 and MA-3 Generator Test Stands at AIMDs and MALS.

G. DESCRIPTION OF NEW DEVELOPMENT

1. Functional Description. The purpose of the AECTS is to provide AIMDs and MALS with the horsepower, shaft speed, and electrical loading requirements to test all aircraft power generating system components. The AECTS, with necessary adapters, is a modular system consisting of a Variable Speed Drive (VSD) System, Test Set Instrumentation, a Hydraulic Cooling System, and Load Banks.

- The VSD will be capable of running at any speed up to 31,000 RPM with a 150-horsepower output.
- Test Set Instrumentation will provide for controlling, selecting, and monitoring of test parameters of the Unit Under Test (UUT). It will display both the selected and actual parameters of the VSD output speed and the AC and/or DC load of the UUT.
- The Hydraulic Cooling System will provide conditioned oil to the gearbox, constant speed drive, and any oil-cooled device under test.
- The Load Bank will be capable of providing loads of infinite resolution, or as a shock load of a preset value for all existing Navy and Marine Corps aircraft electrical system components. It will be capable of balanced phased loading or loading each phase separately for both resistive and reactive loads. A cooling fan will maintain the load elements at a safe operating temperature.

2. Physical Description. The AECTS will be a modular design to allow for tailoring to meet space constraints aboard aircraft carriers. The maximum width of each module will not exceed 45 inches and the maximum height will not exceed 71 inches. The total area required to accommodate the AECTS when assembled is not to exceed 80 square feet in order to facilitate shipboard installation. Any module exceeding 220 pounds will be equipped with appropriate lifting and transporting attachments. The AECTS will be air and ground transportable in both vertical and horizontal storage positions.

3. New Development Introduction. This is a Commercial Off-The-Shelf (COTS)/Non-Developmental Item procurement. The Navy is procuring 59 AECTS units (39 Navy, 19 Marine Corps, one training) to replace the existing MA-2 and MA-3 Generator Test Stands.

4. Significant Interfaces. The AECTS will be capable of interfacing with the 440 VAC, 60 Hertz, three-phase, 4-wire electrical system of the ship. A means of isolating the AECTS from shipboard power will be provided by an isolation transformer.

5. New Features, Configurations, or Material. NA

H. CONCEPTS

1. Operational Concept. The AECTS operating and monitoring functions and associated controls and instrumentation will be grouped to facilitate one-man operation. The AECTS will incorporate Built-In Test (BIT) to perform functional checks upon system startup. The BIT will be capable of isolating failed or faulty components down to a major subassembly level. Personnel in the Navy Aviation Electrician's Mate (AE) rating with Navy Enlisted Classification (NEC) code 7131, and Marines with Military Occupational Specialty (MOS) codes 6432 or 6433 will operate and maintain the AECTS.

2. Maintenance Concept. The maintenance concept for the AECTS is intermediate to commercial depot. The commercial depot for the AECTS is the Original Equipment Manufacturer (OEM), Testek Incorporated, Livonia, Michigan. The OEM will be under a 10-year contract to provide depot level support.

a. Organizational. NA

b. Intermediate. Navy and Marine Corps personnel (NEC 7131 and MOS 6432 or 6433) will operate and maintain the AECTS at AIMDs and MALS in accordance with the approved Maintenance Plan, MP70097019, and all applicable technical manuals and related directives. Scheduled maintenance will be performed per the AECTS Periodic Maintenance Requirements Manual, AG-AECTS-MRC-000. Unscheduled maintenance will include troubleshooting and fault isolation of discrepancies, and the removal and replacement of repairable subassemblies and/or consumable piece parts in accordance with the Operations and Intermediate Maintenance Instruction, AG-AECTS-MIB-000. Components found to be faulty will be returned to the OEM for repair.

c. Depot. The OEM, Testek Incorporated, will provide commercial depot repair of faulty components for a period of ten years.

d. Interim Maintenance. Naval Air Technical Data and Engineering Service Command (NATEC) technical representatives who have attended factory training may provide On-the-Job Training (OJT) to operators and maintainers on an as needed basis upon request. The contractor will be obligated to provide technical assistance as required in conjunction with NATEC personnel and will be the primary technical assistance focal point.

e. Life-Cycle Maintenance Plan. Continuous acquisition and life-cycle support is not required for this procurement.

3. Manning Concept. The AECTS manpower is driven by the requirements for operators and maintainers, preventive and corrective maintenance, and operational safety. Personnel with NEC 7131 and MOS 6432 or 6433 are currently assigned to activities that operate and maintain the MA-2 and MA-3 Generator Test Stands. There are 123 Navy NEC 7131 billets and 356 Marine Corps MOS 6432 or 6433 billets in the fleet. Based on the proposed acquisition of 59 AECTS units (39 Navy, 19 Marine Corps, one training) the AECTS has a possible impact on 117 Navy and 284 Marine Corps billets. The one unit planned for training is already manned by MA-2 and MA-3 Generator Test Stand instructors who would also provide the AECTS training.

a. Estimated Maintenance Man-Hours per Operating Hour. The predicted Mean Time Between Failure (MTBF) is a minimum of 720 hours with a Mean Time To Repair (MTTR) of 4.0 hours. There is no contractual requirement for MTBF or MTTR.

b. Proposed Utilization. The AECTS will be operated approximately 120 hours per month or 1440 hours per year.

c. Recommended Qualitative and Quantitative Manpower Requirements

(1) Aircrew. NA

(2) Enlisted. There is no requirement for additional personnel. Navy personnel with NEC 7131 and Marines with MOS 6432 and 6433 will be trained to operate and maintain the AECTS.

4. Training Concept. Training for the MA-2 and MA-3 Generator Test Stand maintenance is now provided by a stand-alone course, C-602-3820. This course is taught at Maintenance Training Unit (MTU) 3001, Fleet Replacement Enlisted Skills Training (FREST) 203, Marine Corps Air Station (MCAS) Cherry Point, North Carolina. This course does not award an NEC or MOS. Students are maintenance personnel with prerequisite NEC 7131 (OJT awardable) and MOS 6432 or 6433, and are usually fleet returnees. The MA-2 portion of the course is classroom only as no MA-2 is provided at the training site. The MA-3 portion uses both classroom and some laboratory instruction. The student throughput for FY99 was five Marines, two active duty Navy, and two Navy Reservists, for a total of nine. The student throughput for the first two quarters of FY00 was two Marines and two active duty Navy. Class

size for course C-602-3820 is four. Navy personnel are primarily interested in the MA-2 system. However, most Navy training is received through Managed On-the-Job Training (MOJT) at the maintenance sites where the test stands are located. The course is capable of handling an annual throughput of 44 students.

Training for the AECTS will include initial training for NATEC and cadre instructor personnel by the contractor, Testek Incorporated of Livonia, Michigan.

Follow-on training for the AECTS will be provided through courses C-602-XXXXA, A/F 37T-21 Aircraft Engine Components Test Stand Operator, and C-602-XXXXB, A/F 37T-21 Aircraft Engine Components Test Stand Maintainer, at MTU 3001, MCAS Cherry Point. The course curricula will be developed by Support System Technologies Corporation (SSTC).

Delivery of one AECTS system as Technical Training Equipment (TTE) has been approved. A site survey is being conducted at MTU 3001 for completion by June 2000. As a result of this survey, it is expected that the AECTS will be installed in a classroom adjacent to the existing MA-3 lab.

Training on the AECTS will be phased-in over a period of five to six years as the MA-2 and MA-3 course is phased out. Navy personnel will require both new courses to receive NEC 7131. The Marine Corps will migrate the operator training course, C-602-XXXXA, into Track M-602-6432, Fixed Wing Aircraft Electrical Intermediate Maintenance with the maintainer course, C-602-XXXXB, replacing course C-602-3820 as a stand-alone maintainer course. The annual steady state training requirement to support the AECTS is 39 Navy (117 / 3) and 71 Marine Corps (284 / 4). Following the NATEC and cadre instructor training, course lengths for the AECTS operator and maintainer will be established but are not to exceed the existing 26-day requirement for course C-602-3820.

Note: A work center 610/620 Maintenance Training Requirements Review (MTRR) is scheduled for the first week in June. As a result of this meeting it is expected that the NEC requirement will be made "course mandatory" vice the current OJT.

a. Initial Training. Initial training for Technical Evaluation Personnel was completed in September 1999. NATEC and Instructor personnel training will be provided by Testek Incorporated prior to January 2001.

b. Follow-on Training. Existing MA-2 and MA-3 training is provided through course C-602-3820 as shown in the table below. This course will be replaced with courses C-602-XXXXA, A/F 37T-21 Aircraft Engine Components Test Stand Operator, and C-602-XXXXB, A/F 37T-21 Aircraft Engine Components Test Stand Maintainer.

Title **MA-2 / MA-3 Generator Test Stand Maintainer**
CIN C-602-3820
Model Manager .. MTU 3001, MCAS Cherry Point
Description This course covers an introduction to the MA-2 Generator Test Stand and theory of system operation, checkout, troubleshooting, maintenance, repair, and alignment techniques of the MA-3 Generator Test Stand Models D1 and D600. Upon completion of this course, intermediate level AEs will be able to perform maintenance on the MA-2 and MA-3 Generator Test Stands in the Intermediate Maintenance Activity (IMA) shop environment under supervision.
Location MCAS Cherry Point
Length 26 days
RFT date Currently available
Skill identifier NA
TTE/TD MA-3 Generator Test Stand
Prerequisites

- AE “A” school graduate
- Two years experience in an IMA Electric Shop
- Navy NEC 7131; Marine Corps MOS 6432 or 6433

Title **A/F 37T-21 Aircraft Engine Components Test Stand Operator**
CIN C-602-XXXXA
Model Manager .. MTU 3001, MCAS Cherry Point
Description This course covers an introduction to the A/F 37T-21 AECTS, theory of operation, and Preventive Maintenance (PM). Upon completion of this course, intermediate level AEs will be able to operate the A/F 37T-21 AECTS in the IMA shop environment without supervision.
Location MTU 3001, MCAS Cherry Point
Length..... To Be Determined (TBD) (no longer than 26 days when taught in conjunction with C-602-XXXB)
RFT date TBD
Skill identifier..... NA
TTE/TD..... A/F 37T-21 AECTS

Prerequisites C-602-2042, Aviation Electrician's Mate Intermediate Level Maintenance Strand Class A1 or equivalent experience

Title A/F 37T-21 Aircraft Engine Components Test Stand Maintainer

CIN C-602-XXXB

Model Manager .. MTU 3001, MCAS Cherry Point

Description This course covers an introduction to the A/F 37T-21 AECTS and theory of system operation, checkout, troubleshooting, maintenance, repair, and alignment techniques of the MA-3 Generator Test Stand Models D1 and D600. Upon completion of this course, intermediate level AEs will be able to perform maintenance on the A/F 37T-21 AECTS in the IMA shop environment under supervision.

Location MTU 3001, MCAS Cherry Point

Length TBD (no longer than 26 days when combined with C-602-XXXXA)

RFT date TBD

Skill identifier..... NEC 7131

TTE/TD..... A/F 37T-21 AECTS

Prerequisites Navy:

- C-602-2042, Aviation Electrician's Mate Intermediate Level Maintenance Strand Class A1

Marine Corps:

- C-602-2042, Aviation Electrician's Mate Intermediate Level Maintenance Strand Class A1
- Two years experience in an IMA Electric Shop
- Marine Corps MOS 6432 or 6433
- C-602-XXXXA A/F 37T-21 Aircraft Engine Components Test Stand Operator

c. Student Profiles

| SKILL IDENTIFIER | PREREQUISITE SKILL AND KNOWLEDGE REQUIREMENTS |
|-------------------------|---|
| AE | ◦ C-100-2020, Avionics Common Core Class A1 ◦ C-602-2042, Aviation Electrician's Mate Intermediate Level Maintenance Strand Class A1 |

d. Training Pipelines. See H.4.b above for training pipeline.

I. ONBOARD (IN-SERVICE) TRAINING

1. Proficiency or Other Training Organic to the New Development

a. Maintenance Training Improvement Program. The Maintenance Training Improvement Program (MTIP) is used to establish an effective and efficient training system responsive to fleet training requirements. MTIP is a training management tool that, through diagnostic testing, identifies individual training deficiencies at the organizational and intermediate levels of maintenance. MTIP is the comprehensive testing of one's knowledge. It consists of a bank of test questions managed through automated data processing. The Deputy Chief of Staff for Training assisted in development of MTIP by providing those question banks (software) already developed by the Navy. MTIP was implemented per OPNAVINST 4790.2G, Naval Aviation Maintenance Program (NAMP). MTIP allows increased effectiveness in the application of training resources through identification of skills and knowledge deficiencies at the activity, work center, or individual technician level. Refresher training is concentrated where needed to improve identified skill and knowledge shortfalls. MTIP will be replaced by the Aviation Maintenance Training Continuum System (AMTCS). Current planning is for AMTCS to begin initial implementation in third quarter FY00.

COMNAVAIRPAC has discontinued using MTIP. They are currently using maintenance data products as a source to determine maintenance training deficiencies until AMTCS is implemented.

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 is planned to be 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 increased effectiveness of the technicians and the increased efficiencies of the management of the training business process. By capitalizing on technological advances and integrating systems and processes where appropriate, the right amount of training can be provided 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: Computer-Based Training (CBT) for the technicians in the Fleet in the form of Interactive Courseware with Computer Managed Instruction and Computer Aided Instruction for the schoolhouse.

Included in the AMTCS development effort is the AMTCS Software Module (ASM) which provides testing (Test and Evaluation), recording (Electronic Training Jacket), 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 data bank. These tools are procured and fielded with appropriate COTS hardware and software, i.e., Fleet Training Devices - Laptops, Personal Computers, Electronic Classrooms, Learning Resource Centers, operating software, and network software and hardware.

Upon receipt of direction from OPNAV (N889H), AMTCS is 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 Programs (MATMEP).

2. Personnel Qualification Standards. NA

3. Other Onboard or In-Service Training Packages. Marine Corps onboard training is based on MCO P4790.12B, Individual Training Standards System and MATMEP. This program is designed to meet Marine Corps, as well as the NAMP maintenance training requirements. It is a performance-based, standardized, level-progressive, documentable training management and evaluation program. It identifies and prioritizes task inventories by MOS through a front-end analysis process that identifies task, skill, and knowledge requirements of each MOS. MTIP questions coupled to MATMEP tasks will help identify training deficiencies that can be enhanced with refresher training. MATMEP will be replaced by AMTCS in approximately FY02.

J. LOGISTICS SUPPORT

1. Manufacturer and Contract Numbers

| CONTRACT NUMBER | MANUFACTURER | ADDRESS |
|------------------------|---------------------|---------------------------------------|
| N62269-7016-0861 | Testek Incorporated | 12271 Globe Road Livonia, MI 48150 |

2. Program Documentation. The User's Logistics Support Summary (ULSS), NAWCADLKE-170097019 dated 1 December 1998 is currently being updated and should be available in October 2000.

3. Technical Data Plan. The contractor's technical manuals are considered adequate for the AECTS. No additional manual procurement is anticipated. The following manuals are required to support the AECTS:

- Operation and Intermediate Maintenance Manual, with Illustrated Parts Breakdown, NA 17-TBD
- Pre-Operational Check List, NA 17-600-TBD-6-1
- Periodic Maintenance Requirements Manual, NA 17-600-TBD-6-2
- A/F 37T-21 Calibration Procedures, NA 17-20TBD

Note: The possibility exists that specific equipment test publications may be required in conjunction with the operation of this test stand.

4. Test Sets, Tools, and Test Equipment. There are no requirements anticipated for Peculiar Support Equipment (PSE) to support the AECTS. Requirements for PSE will be eliminated, reduced, and simplified through the supportability analysis process. If a requirement for PSE is identified, items already in the Navy inventory will be used to the greatest extent possible. No Special Purpose Electronic Test Equipment is required to support the AECTS. Only common hand tools currently in the Navy inventory are required to support AECTS.

5. Repair Parts. All parts support for the AECTS will be provided by the contractor with oversight by the Naval Inventory Control Point, Philadelphia. The Material Support Date is projected for February 2001.

6. Human Systems Integration. The Human Systems Integration design of equipment, facilities, and control systems will reflect human engineering design factors, life support, and biomedical factors that affect human performance, including but not limited to:

- Protection from thermal, toxicological, radiological, mechanical, electrical, electromagnetic, pyrotechnic, visual, and other hazards.
- Adequate space for personnel, their equipment, and free space for movements and activities performed during operation and maintenance tasks under both normal and emergency conditions.
- Efficient arrangement of operation and maintenance workspace, equipment, controls, and displays.
- Adequate natural or artificial illumination for operation, control, training, and maintenance.
- Design features to assure rapid, safe, ease, and economy of operation and maintenance under normal, adverse, and emergency conditions.

- Compatibility of the design with clothing and personal equipment of personnel operating, handling, or maintaining the system or equipment.

K. SCHEDULES. The Acquisition Logistics Support Plan, NAWCADLKE-170097019 dated 18 January 2000, identifies IOC as February 2001. First article testing was completed in January 2000. Technical Evaluation at the Naval Air Warfare Center Aircraft Division, Patuxent River began in October 1999 and was completed April 2000. The contract for the initial production option was awarded in April 2000.

1. Installation and Delivery Schedules. Delivery of the AECTS will begin in January 2001 at the rate of one per month until the total procurement of 59 is reached. Final delivery is projected to be November 2006.

| DELIVERY SCHEDULE | | | | | |
|--------------------------|-------------|-------------|-------------|-------------|-------------|
| FY01 | FY02 | FY03 | FY04 | FY05 | FY06 |
| 9 | 12 | 12 | 12 | 12 | 2 |

2. Ready For Operational Use Schedule. The AECTS will be ready for operational use upon completion of installation of equipment and training of the AIMD or MALS technicians. A Ready for Operational Use schedule is not available at this time. It is expected that F/A-18 sites will receive the AECTS first. The following listing shows the anticipated recipients of the AECTS:

| AIRLANT (21): | |
|-------------------------------|----------------------------|
| MALS-31 MCAS Beaufort | NAVSTA Roosevelt Roads |
| NAS Norfolk | MALS-26 MCAS New River (2) |
| NAS Jacksonville (2) | MALS-29 MCAS New River (2) |
| NAS Oceana (2) | USS Enterprise |
| NAS Brunswick | USS John F. Kennedy |
| NAS Keflavik | USS Dwight D. Eisenhower |
| NAS Sigonella | USS Theodore Roosevelt |
| MALS-14 MCAS Cherry Point (2) | USS George Washington |

| | |
|----------------------------|----------------------|
| AIRPAC (19): | |
| NAS North Island | MALS-12 MCAS Iwakuni |
| NAS Whidbey Island | MALS-36 MCAS Futenma |
| MALS-39 Camp Pendleton (2) | NAS Lemoore |
| MALS-13 MCAS Yuma | NWTS Point Mugu |
| MALS-16 MCAS Miramar | USS Nimitz |
| MALS-11 MCAS Miramar (2) | USS Carl Vinson |
| NAF Misawa | USS Abraham Lincoln |
| NAS Fallon | USS John Stennis |
| MALSE MCB Hawaii | |

| | |
|---------------------|----------------------------|
| CNAVRES (7): | |
| NAF Washington | NAS Willow Grove |
| NAS New Orleans | NAS Fort Worth |
| NAS Atlanta | MALS-41 Fort Worth |
| | MALS-49 Det B ANGB Stewart |

| | |
|--------------------|----------------|
| CNATRA (5): | |
| NAS Pensacola (2) | NAS Meridian |
| NAS Corpus Christi | NAS Kingsville |

| | |
|---------------------|---------------------|
| NAVAIR (6): | |
| USS Harry S. Truman | USS Ronald Reagan |
| CVN 77 | NWTS China Lake |
| NTWL Patuxent River | HMX-1 MCAF Quantico |

| | |
|------------|--------------------------|
| NAMTG (1): | MAG-14 MCAS Cherry Point |
|------------|--------------------------|

3. Time Required to Install at Operational Sites. Based on the schedule provided in the ULSS, approximately six weeks are required to perform training, install, and check out the installation of the AECTS.

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

5. Training Device and Technical Training Equipment Delivery Schedule. The AECTS is the primary TTE. Currently, only one AECTS has been identified to go to MCAS Cherry Point (FREST 203). Schedule for delivery and installation is not known at this time. A site survey is recommended prior to receipt of new TTE and curriculum to verify capability to support projected training at the current training site.

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 |
|---|-------------------------|---------------------------|----------------------|
| A/F 37T-15 Aircraft Generator System Test Stand | A-50-8606A | NAEC-52712 | Draft Mar 90 |
| Performance Specification | NA | PMA 260 | Revised 31 Dec 97 |
| Acquisition Logistics Support Plan | NAWCAD 170097019 | NAWCADLKE Code 3.1.4.4 | 18 Jan 00 |
| Maintenance Plan for A/F 37T-21 Aircraft Engine Components Test Stand | MP70097019 | NA | NA |

APPENDIX A - POINTS OF CONTACT

| NAME / FUNCTION / ACTIVITY, CODE / INTERNET EMAIL | TELEPHONE NUMBERS |
|--|--|
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APPENDIX A - POINTS OF CONTACT

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