

## 12034 Environmental Liabilities for Federal Managers

Training Manager: AMA-400 Course Length: 1 hour(s)

This course provides training for managers and supervisors on personal liabilities relating to environmental laws. The course is 100% videotape. Subjects include the Environmental Protection Agency laws, National Environmental Policy Act, violations of these laws, and results of violations which can result in substantial fines and possible imprisonment for willful negligence acts.

**Prerequisites: None**  
**And one of the following: None**

## 12400 (CBI) A+ Revised Operating Systems Technologies

Training Manager: AMA-480 Course Length: 44 hour(s)

This course teaches the installation, configuration, and troubleshooting of DOS and Windows-based PCs. This course covers file systems, devices and drivers, and basic DOS/Windows networking capabilities.

**Prerequisites: None**  
**And one of the following: None**

## 12600 Awareness of Lockout/Tagout Procedures

Training Manager: AMA-400 Course Length: 4 hour(s)

This course provides awareness-level training for employees who service and maintain FAA potentially hazardous energy (PHE) equipment. It is also for those who operate PHE equipment or supervise or inspect employees who service, maintain and/or operate PHE. The course is 85% field lecture and 15% videotape with a student guide. It describes the purpose and function of the FAA's Hazardous Energy Control Program in accordance with 29 CFR 147; 29 CFR 1960; FAA orders 3900.19a, 3900.6a; 3900.49; and Draft 3900.xxx, appendix 3.

**Prerequisites: None**  
**And one of the following: None**

## 12601 Applications of Lockout/Tagout Procedures

Training Manager: AMA-400 Course Length: 4 hour(s)

This course provides authorized employees hands on experience in the application of lockout/tagout devices to potentially hazardous energy (PHE) equipment. The course is 10% lecture and 90% lab. The material is in accordance with OSHA 29 CFR 1910.147 and 1960, FAA Orders 3900.19A, 3900.6A, Draft 3900.xxx, Appendix 3, and 3900.49.

**Prerequisites: 12600**  
**And one of the following: None**

## 12602 Resident Engineer - Fire Life Safety (FLS)

Training Manager: ANS-500 Course Length: 24 hour(s)

This course provides training for resident engineers who are overseeing FLS upgrades at ATCT's to inspect and accept the installation of fire life safety equipment and related features. Subjects include overview of alternate emergency standards for airport traffic control towers, basic fire protection/life safety codes, systems features, components, and fire protection procedures.

**Prerequisites: None**  
**And one of the following: None**

## 12605 (CBI) Safety Review for FAA Supervisors

Training Manager: AMA-400 Course Length: 2 hour(s)

This course provides training for supervisors on the supervision of OSHA requirements at a worksite. This course is 2 hours computer-based instruction. There is no end-of-course exam.

**Prerequisites: None**  
**And one of the following: None**

## 12606 NAS System Technical Evaluation Program (NASTEP)

Training Manager: AMA-400 Course Length: 56 hour(s)

This course provides training for technical evaluators on the National Airspace System Technical Evaluation Program (NASTEP). The course is 28 hours lecture and 28 hours laboratory. Lecture subjects include a NASTEP overview and concepts, pre-evaluation activities, report writing, and post-evaluation activities. Lab subjects include a software demo, site visits, customer interviews, and entrance/exit briefings. Students must bring a laptop.

**Prerequisites: 12607**  
**And one of the following: None**

## 12607 Intro to NASTEP

Training Manager: AMA-400 Course Length: 8 hour(s)

This course provides training for technical evaluators on the National Airspace System Technical Evaluation Program (NASTEP). This course is 8 hours correspondence study. Subjects include NASTEP guidelines and FAA Order 6040.6X.

**Prerequisites: None**  
**And one of the following: None**

## 12608 Defensive Driving: A Crash Course

Training Manager: AMA-400 Course Length: 1 hour(s)

This course teaches airway facilities personnel defensive driving techniques. This course is a 2-hour videotape. Subjects include the rules of driving with an emphasis on defensive driving techniques and illustrations of what a driver can do to avoid accidents.

**Prerequisites:** None  
**And one of the following:** None

## 12609 Minimum Training for OSHECCOM Members

Training Manager: AMA-400 Course Length: 2 hour(s)

This course provides minimum training requirements for OSHECCOM members. This course is 2 hours field lecture and is conducted at regional, headquarter, Technical Center, and Aeronautical Center locations. Subjects include Executive Order 12196, OSHA Program, 29 CFR 1960, Basic OSHA Program, 29 CFR 1910, General Industry Requirements, 29 CFR 1926, Construction Industry Standards, environmental compliance, and duties and responsibilities of OSHECCOM members.

**Prerequisites:** None  
**And one of the following:** None

## 12610 (CBI) Environmental Due Diligence Audit (EDDA)

Training Manager: AMA-405 Course Length: 16 hour(s)

This course covers instructions for FAA personnel to prepare for an Environmental Due Diligence Audit. This course is 16 hours of computer-based instruction (CBI). Specific topics include guidance for management decision-making with EDDA and protecting the agency from environmental liability.

**Prerequisites:** None  
**And one of the following:** None

## 12623 Fall Protection Basic Awareness

Training Manager: AMA-405 Course Length: 4 hour(s)

This course provides training for AF technicians, engineers, FAA Technical Center personnel, and air traffic control specialists on fall protection basic awareness. This course is 2 hours field lecture and 2 hours field laboratory. Lecture subjects include elements of fall hazards in the work area, procedures for fall protection, hazard identification on ladders and elevated surfaces, handling and storage of fall protection equipment, and PPE. Lab subjects include consequences of improper use of fall protection equipment, equipment demonstration, proper harness attachment, and proper attachment methods.

**Prerequisites:** None  
**And one of the following:** None

## 12624 Fall Protection-Expert Climber

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for AF technicians, engineers, FAA Technical Center personnel, and air traffic control specialists on fall protection for expert climbers. This course is 12 hours field lecture and 12 hours field laboratory. Lecture subjects include workplace hazard awareness and identification, handling, inspection and storage of fall protection equipment, and basic awareness of rescue procedures. Lab subjects include the demonstration of the use of fall protection equipment, demonstration of proper attachment points on harness and proper attachment methods, consequences of improper use of harness, identification and use of tie-offs for work positioning, and performing a climb greater than 50 feet.

**Prerequisites:** None  
**And one of the following:** None

## 12625 Fall Protection-Competent Person

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for AF technicians, engineers, and FAA Technical Center personnel on fall protection-competent person. This course is 12 hours field lecture and 12 hours field laboratory. Lecture subjects include the nature of fall hazards in the work area, knowledge of the hierarchy of controls, workplace hazard awareness and identification, procedures for handling, inspecting, and storage of fall protection equipment, procedures for erecting, maintaining, disassembling, and inspecting fall arrest systems. Lab subjects include vertical and horizontal lifetime selection and use, performing an advanced climb, self retracting lifelines, and basic rescue operations.

**Prerequisites:** None  
**And one of the following:** None

## 12626 (CBI) Environmental Due Diligence Audit (EDDA) for Managers

Training Manager: AMA-405 Course Length: 16 hour(s)

This course covers instructions for FAA management personnel to prepare for an environmental due diligence audit. This course is 16 hours of computer-based instruction (CBI). Specific topics include guidance for management decision-making with EDDA and protecting the agency from environmental liability.

**Prerequisites:** None  
**And one of the following:** None

## 12700 (CBI) General Safety, Health, and Environmental Awareness

Training Manager: AMA-400 Course Length: 24 hour(s)

This is a general safety awareness CD ROM containing the

Environmental Protection Agency's, Safety, Health, and Environmental Division's (SHED) basic course for safety and health inspectors. It is composed of seven general categories and 34 computer-based training modules.

**Prerequisites:** None  
**And one of the following:** None

## **12709 (CBI) FAA Technical On-Site Representative (TOR)**

Training Manager: AMA-405 Course Length: 12 hour(s)

This course is for FAA personnel who will be technical on-site representatives (TOR). This course is 12 hours computer-based instruction. Subjects include TOR responsibilities, installation documentation, coordination of installation activities, contractor acceptance inspection (CAI), JPINT acceptance inspection (JAI), and handling exceptions.

**Prerequisites:** None  
**And one of the following:** None

## **12723 (CBI) Airport Ground Vehicle Operations**

Training Manager: AMA-405 Course Length: 2 hour(s)

This course provides airfield driver training for FAA employees who must drive unescorted on any airfield of any airport. The course is 100% computer-based training, administered on the Internet. Subjects include identification of signs and markings when driving on the airport, communication using the correct aviation phraseology, and identifying controller light signals.

**Prerequisites:** None  
**And one of the following:** None

## **12753 (CBI) Basic Telecommunications**

Training Manager: AMA-480 Course Length: 8 hour(s)

This is the first of two courses of instruction in telecommunications fundamental and basic techniques involved in modern communications practices.

**Prerequisites:** None  
**And one of the following:** None

## **12754 (CBI) Advanced Telecommunications**

Training Manager: AMA-480 Course Length: 25 hour(s)

This is the second and more advanced of two courses of instruction in telecommunications. Advanced subjects include computer telephony integration. Voice over IP and packetized voice networking. Also included is an introduction to ISDN, protocols, and ISDN D-

channel.

**Prerequisites:** None  
**And one of the following:** None

## **12755 (CBI) A+ Revised\* Core Hardware**

Training Manager: AMA-480 Course Length: 19 hour(s)

This course covers PC configuration, PC diagnostics and repair, networking support, and maintenance and safety. This course used in conjunction with 12400, A+ Revised\* Operating Systems Technologies.

**Prerequisites:** None  
**And one of the following:** None

## **12757 (CBI) Operating Systems, Linux**

Training Manager: AMA-480 Course Length: 16 hour(s)

This series of topics introduces basic Linux. Topics include system fundamentals, file management and configuration.

**Prerequisites:** None  
**And one of the following:** None

## **12758 (CBI) Operating Systems, Solaris 2.X**

Training Manager: AMA-480 Course Length: 58 hour(s)

This series of topics introduces the student to basic Solaris 2.X. Topics include system administration, user set-up, security, file management, and job control.

**Prerequisites:** None  
**And one of the following:** None

## **12760 (CBI) Network Devices**

Training Manager: AMA-480 Course Length: 43 hour(s)

This series of topics introduces the student to basic networking and devices. Topics include router configuration and management, VLANs, IP routing, and network concepts and devices. This series is Cisco based as representative of the general class of industry standard devices.

**Prerequisites:** None  
**And one of the following:** None

## **12761 (CBI) Operating Systems, HP-UX**

Training Manager: AMA-480 Course Length: 10 hour(s)

This series of topics introduces basic HP-UX. This series will cover the essentials of HP-UX as well as file management and job control.

**Prerequisites:** None  
**And one of the following:** None

## 12762 (CBI) Operating Systems, UNIX

Training Manager: AMA-480 Course Length: 32 hour(s)

This series of topics introduces basic UNIX. This series covers the UNIX file system, shells, the user environment, and using basic editors and utilities.

**Prerequisites:** None  
**And one of the following:** None

## 14600 Occupational Safety for Supervisors

Training Manager: AMA-400 Course Length: 3 hour(s)

This course provides training for supervisors concerning their responsibilities for maintaining safety in the workplace. The course is 100% correspondence study, utilizing a short video which identifies some noncompliance situations. Subjects include standards; how to plan and conduct a safety check; and how to report hazards, incidents, and unsafe conditions.

**Prerequisites:** None  
**And one of the following:** None

## 14602 Awareness of Lockout/Tagout Procedures

Training Manager: AMA-400 Course Length: 3 hour(s)

This course provides awareness-level training for employees who service and maintain FAA potentially hazardous energy (PHE) equipment. It is also for those who operate PHE equipment or for those who supervise or inspect employees who service, maintain, and/or operate PHE. It describes the purpose and function of the FAA's Hazardous Energy Control Program in accordance with 29 CFR 1910.147; 29 CFR 1960; FAA Orders 3900.19A, 3900.6A, 3900.49, and Draft Order 3900.xxx, Appendix 3. This course is 85% correspondence study and 15% videotape 'Controlling the Beast'.

**Prerequisites:** None  
**And one of the following:** None

## 14640 Awareness of Hazard Communication Procedures

Training Manager: AMA-400 Course Length: 3 hour(s)

This course provides awareness-level training for employees who work with or may work with hazardous chemicals. It describes the purpose of the FAA's hazard communication program. It covers

OSHA and FAA requirements for written program, warning labels and how to interpret them, and how to read a material safety data sheet. All are in accordance with OSHA Standard 29 CFR 1910.1200 and FAA Order 3950. This course is 100% correspondence study.

**Prerequisites:** None  
**And one of the following:** None

## 18603 ANI Quality Management System

Training Manager: AMA-405 Course Length: 4 hour(s)

This course provides participants with a general understanding of the ANI Quality Management System (QMS). The basic structure and operating relationships of the ANI QMS is explained through the quality manual, standard operating procedures, and work instructions. Attendees are provided specific information on the following: ANI quality manual, document and record controls, management review, internal audits, corrective and preventive actions, control of nonconforming products, enterprise models, web page applications, and the relationship of product realization SOPs and the QMS.

**Prerequisites:** None  
**And one of the following:** None

## 18604 ISO Awareness

Training Manager: AMA-405 Course Length: 4 hour(s)

This course will address the rationale, requirements, and implementation guidelines for International Organization for Standardization (ISO) Quality Management Systems as defined by the ISO 9000:2000 series of documents. Course content includes the following: ISO 9000:2000 and supporting documents, ISO 9001:2000 requirements, the eight quality management principles, new focus of 2000 standards, registration requirements, basic procedure requirements, and basic record requirements.

**Prerequisites:** None  
**And one of the following:** None

## 18605 Basic Project Management

Training Manager: AMA-410 Course Length: 30 hour(s)

This ANI course is designed to teach the basic knowledge and skills of project management to personnel who are involved in any phase of project management (initiating, planning, controlling, executing, or closing out). The course consists of formal classroom instruction and practice exercises. The target audience includes project engineers, lead project engineers, and resident engineers.

**Prerequisites:** None  
**And one of the following:** None

## 40000 VTABS Site Maintenance

Training Manager: AMA-410 Course Length: 64 hour(s)

This course provides training for ARTCC technicians, engineers, SPS's, and FAA Technical Center personnel on the VSCS Training and Backup System (VTABS), Type 10500. The course is 40 hours Academy lecture and 24 hours Academy laboratory. Lecture and laboratory subjects include system introduction and overview, VTABS workstation, cutover switch subsystem, system monitor, control subsystem, system architecture, position equipment module (PEM), voice switch, IDF, LANs, power supplies, system monitor and control subsystem (SMC), and system-level troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40051, 40272, 40273, 48171, 48172

## 40023 ICSS Type I, Maintenance

Training Manager: AMA-410 Course Length: 56 hour(s)

This course provides training for technicians and engineers on the Model 400 Integrated Communications Switch System (ICSS) Type I. The course is 25 hours Academy lecture and 31 hours Academy laboratory. Lecture subjects include ICSS's system control unit operation, the computer-based system control, operation and function of the position console equipment, and function of the central rack equipment. Laboratory subjects include test and alignment procedures, preventive and corrective maintenance, and troubleshooting.

**Prerequisites:** 47504  
**And one of the following:** None

## 40024 ICSS Type II, Maintenance

Training Manager: AMA-410 Course Length: 64 hour(s)

This course provides training for technicians on the ICSS Type II. The course is 23 hours Academy lecture and 41 hours Academy laboratory. Lecture subjects include position modules, module controller, TDM concepts, PCM BUS, common controller, DCC BUS, POSCO, RADCO, TRUO, and T/R interface racks. Laboratory subjects include level checks, power supply checks, squelch adjustment, mapping and reconfiguration, and troubleshooting practice.

**Prerequisites:** 47504, 47012  
**And one of the following:** None

## 40028 Denro Rapid Deployment Voice Switch (RDVS)

Training Manager: AMA-410 Course Length: 48 hour(s)

This course provides training for technicians on the ICSS Denro Model 400 RDVS. The course is 24 hours Academy lecture and 24 hours Academy laboratory. Lecture subjects include RDVS system description, theory of operation of LRU's, system reconfiguration,

audio levels/alignments, and troubleshooting. Laboratory subjects include operation of positions, audio level checks, alignment of positions, central rack boards and power supplies, system reconfiguration, and troubleshooting.

**Prerequisites:** 47504  
**And one of the following:** None

## 40029 ICSS L/A 3080

Training Manager: AMA-410 Course Length: 48 hour(s)

This course provides training for technicians on the Litton/Amecon II ICSS 3080. The course is 23 hours Academy lecture and 25 hours Academy laboratory. Lecture subjects include PCU, RCU, TCU, position modules, MCU, power distribution, common elements, mapping, and reconfiguration. Laboratory subjects include calling procedures, level checks, mapping, and reconfiguration.

**Prerequisites:** 47012, 47504  
**And one of the following:** None

## 40041 ETVS Hardware Maintenance

Training Manager: AMA-410 Course Length: 96 hour(s)

This course provides training for technicians on the Denro Enhanced Tower Voice Switch (ETVS). The course is 48 hours Academy lecture and 48 hours Academy laboratory. Lecture subjects include ETVS System overview, function and operation of position modules, purpose and theory of operation of ETVS LRU's, periodic and corrective maintenance, system reconfiguration, fault isolation and troubleshooting. Laboratory subjects include operation of position equipment, system-level checks and alignments, system reconfiguration, fault isolation, and troubleshooting.

**Prerequisites:** 47504  
**And one of the following:** None

## 40042 Litton Rapid Deployment Voice Switch (RDVS) IIA

Training Manager: AMA-410 Course Length: 80 hour(s)

This course provides training for engineers and technicians on the RDVS IIA System. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Subjects include system overview, operating features and capabilities, position equipment, control units, quality control and configuration control terminals, map and source file editing, power distribution, password protection, and troubleshooting using the system software.

**Prerequisites:** 47504  
**And one of the following:** None

## 40043 ACD/VRS - DSP 1000 Maintenance

Training Manager: AMA-410 Course Length: 80 hour(s)

This course provides training for AF personnel responsible for maintaining the automated call Director/Voice Retrieval System - Digital Switching Platform 1000 System. Subjects include a course overview, system technical manuals, terminology, and a lab walk-through. Lecture/lab requires the student to identify, familiarize, and perform tasks associated with equipment configurations, components and their functions, the system database and related screen menu structures, system operations, and cable tracing. System troubleshooting challenges the student to identify and isolate system problems and determine the appropriate corrective action required to make the system operational.

**Prerequisites:** None  
**And one of the following:** None

## 40045 Digital Voice Recorder, Type II (DVR2)

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on the DVR2, Type II (DVR2). This course is 20 hours Academy lecture and 20 hours Academy laboratory. Lecture subjects include the theory of operation, evaluations, preventative maintenance procedures, and fault analysis. Laboratory subjects include system operating procedures, system evaluation, routine test procedures, adjustments, and isolation of faults.

**Prerequisites:** None  
**And one of the following:** None

## 40046 VCSU Site Software Maintenance Delta

Training Manager: AMA-410 Course Length: 88 hour(s)

This course provides training for technicians on the software for the VCSU control subsystem upgrade (VCSU) of the Voice Switching and Control System (VSCS). The course is 44 hours Academy lecture and 44 hours Academy laboratory. The scope of the subject matter is changes to the VSCS as a result of the VCSU implementation. Lecture subjects include system architecture, workstation operations, software operational analysis, database management, software configuration, and system administration for Windows 2000. Laboratory subjects include fault mitigation, user interface operations, system startup/shutdown, technical documentation, and file management.

**Prerequisites:** None  
**And one of the following:** 40273, 48172

## 40047 VCSU Hardware Maintenance Delta

Training Manager: AMA-410 Course Length: 64 hour(s)

This course provides training for technicians on the hardware for the

VCSU Control Subsystem Upgrade (VCSU) of the Voice Switching and Control System (VSCS). The course is 37 hours Academy lecture and 37 hours Academy laboratory. The scope of the subject matter is changes to the VSCS as a result of the VCSU implementation. Lecture subjects include system architecture, workstation operations, corrective and preventive maintenance, software configuration, and system administration for Windows 2000. Laboratory subjects include fault mitigation, user interface operations, SIS maintenance, system startup/shutdown, technical documentation, and file management.

**Prerequisites:** None  
**And one of the following:** 40272, 48171

## 40048 Litton RDVS IIA (Navy Equipment Emphasis)

Training Manager: AMA-410 Course Length: 80 hour(s)

This course provides training targeted for Navy specialists on the RDVS IIA System. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Subjects include system overview, operating features and capabilities, position, position equipment, control units, quality control and configuration control terminals, map and source file editing, power distribution, password protection, troubleshooting using the system software, and programming of the PICT.

**Prerequisites:** None  
**And one of the following:** None

## 40049 C3 VHF/FM Radio System for Technicians

Training Manager: AMA-410 Course Length: 24 hour(s)

This course provides training for the system specialist to operate and maintain all C3 VHF/FM related equipment. The course is 8 hours Academy lecture and 16 hours Academy laboratory. Training includes installation, operation, troubleshooting and maintenance of XTS3000 radios, mobile units, Quantar repeaters, and base stations and all ancillary equipment.

**Prerequisites:** 47504  
**And one of the following:** None

## 40050 C3 VHF/FM Radio System Software

Training Manager: AMA-410 Course Length: 24 hour(s)

This course provides training for system specialists in the operation and application of Motorola RSS and CPS software for the specific equipment used in the FAA configuration. The course is 8 hours Academy lecture and 16 hours Academy laboratory. Training includes encryption-decryption and configuration of handheld radios, mobile units, repeaters, and base stations as well as ancillary equipment (DIU, MC2500, IFR test set).

**Prerequisites:** 40049  
**And one of the following:** None

## 40051 VSCS Hardware Maintenance

Training Manager: AMA-410 Course Length: 480 hour(s)

This course provides training for technicians on the hardware for the Voice Switching and Control System (VSCS). The course is 266 hours Academy lecture and 214 hours Academy laboratory. Lecture subjects include system architectural overview, maintenance position operation, system configuration, troubleshooting, software configuration and restoration, and analysis of diagnostic results. Laboratory subjects include fault mitigation, user interface operations, switching system architecture, SIS maintenance, system startup/shutdown, technical documentation, and file management.

**Prerequisites:** 47012, 88440  
**And one of the following:** None

## 40052 VSCS Site Software Support

Training Manager: AMA-410 Course Length: 280 hour(s)

This course provides training for technicians on the operational software program for the Voice Switching and Control System (VSCS). The course is 140 hours Academy lecture and 140 hours Academy laboratory. Lecture subjects include writing, debugging, and executing programs; updating and modifying adaptation parameters; and modifying, debugging, and executing maintenance and diagnostic programs. Laboratory subjects include Windows 2000 advanced server utilities, system management, peripheral operations, file operation, user interface operation, system troubleshooting, system startup/shutdown, call processing, and database management.

**Prerequisites:** 40051, 47012, 88440  
**And one of the following:** None

## 40053 Basic National Airspace System (NAS) Knowledge

Training Manager: AMA-405 Course Length: 24 hour(s)

This course is designed to meet the new hire training initiative program by providing a baseline for understanding the role of the maintenance and certification programs within the FAA. Students will gain working knowledge of FAA Order 6000.15, General Maintenance Handbook for National Airspace System (NAS) Facilities and apply those learned principles during this course. Subject matter includes the following areas: organizational structure of Air Traffic Organization (ATO), National Airspace System (NAS) overview and functions, tort law, maintenance and certification programs, coordination activities, and protection of property and personnel.

**Prerequisites:** None  
**And one of the following:** None

## 40054 New Hire Orientation

Training Manager: AMA-410 Course Length: 152 hour(s)

This course is designed for the newly hired system specialist. It includes basic NAS knowledge, required EOSH awareness training, telecommunications and other prerequisite technical areas required by the student to prepare them for further training in FAA systems. This training includes equivalency for Courses 14602, Awareness of Lockout/Tagout; 45510, Orientation & Safety OJT; 44506, AF General Maintenance Handbook; 12723, Airport Ground Vehicle Operations, 12763, Applications; 12753, Basic Telecommunications, and 12754, Advanced Telecommunications.

**Prerequisites:** None  
**And one of the following:** None

## 40055 Communications Systems

Training Manager: AMA-410 Course Length: 240 hour(s)

This course is designed to teach basic communications to system specialists. Subjects include communications theory, AN/GRR-23/24, AN/GRT-21/22, PET 2000, remote RCE and Motorola CM-200 VHF/UHF receiver, and transmitter operations and adjustments. It includes the material in courses 47504, (CBI/MM) communication equipment, and 45022, VHF and UHF transmitters and receivers OJT, and ends with administration of certification exam 88581 VHF & UHF Communications Equipment and Facility Wiring (CP70), which must be passed for successful completion of the course.

**Prerequisites:** None  
**And one of the following:** None

## 40132 Boilers and Chillers

Training Manager: AMA-430 Course Length: 120 hour(s)

This course provides training for technicians on boilers and centrifugal chillers used at ARTCC's. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Lecture subject areas include theory and construction of boilers and centrifugal chillers; troubleshooting water testing and treatment; boiler tube replacement methods; boiler operational safety; centrifugal chillers, motors, and controls; water distribution equipment; air handling; and auxiliary equipment. Laboratory subject areas include centrifugal chiller/boiler safety and operation, troubleshooting, and water treatment.

**Prerequisites:** None  
**And one of the following:** 40114, 47607, 40156

## 40133 Environmental Systems and Controls

Training Manager: AMA-430 Course Length: 200 hour(s)

This course provides training for technicians on Johnson and Honeywell pneumatic controls and devices, Liebert Computer Air Conditioning Systems, and CSI direct digital controls used at ARTCCs. The course is 100 hours Academy lecture and 100 hours Academy lab. Lecture subjects include properties and the condition of air; system analysis and balancing; pneumatic control of air handling equipment; environmental control systems remote monitoring equipment; use of special test equipment and computers; troubleshooting and calibration methods; and performance evaluation. Lab subjects include pneumatic control system adjustment and system troubleshooting.

**Prerequisites:** 88440, 88441  
**And one of the following:** 40114, 47607, 40156

## 40135 Approach Lighting System With Flashers (ALSF)-II (Godfrey)

Training Manager: AMA-430 Course Length: 120 hour(s)

This course provides training for technicians and engineers on the Godfrey ALSF-2 FA-9993. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Subjects include constant current regulators, control and monitor cabinet, and ADB-ALNACO flashers with master timer a control cabinet.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 40136 Approach Lighting System With Flashers (ALSF)-II (Airflo)

Training Manager: AMA-430 Course Length: 120 hour(s)

This course provides training for technicians and engineers on the Airflo ALSF-II FA-10048. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Lecture and laboratory subjects include constant current regulator, control and monitor cabinet, Godfrey flashers, and control cabinet.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 40143 Medium Intensity Approach Lighting System With RAIL

Training Manager: AMA-430 Course Length: 80 hour(s)

This course provides training for technicians on the MALSR/RMS and REIL/RMS, Types FA-10290 and FA-10264. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include configuration, control cabinet, ICC, flasher head, and RMS. Laboratory subjects include control cabinet, ICC, RMS, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 40147 DME MALSR/RMS

Training Manager: AMA-430 Course Length: 48 hour(s)

This course provides training for technicians and engineers on the Medium Intensity approach light system with runway alignment indicator lights (MALSR) and Remote Monitor System (RMS) manufactured by the DME Corporation. The course is 20 hours Academy lecture and 28 hours Academy laboratory. Lecture subjects include system and component description, layout and configuration, circuit description, interconnection diagrams, component operation, and RMS general description and operation. Lab subjects include equipment layout, configuration, component location, maintenance tasks, adjustments, system troubleshooting, and RMS operation and use.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 40148 NBP Dual Mode ALSF-2/SSALR

Training Manager: AMA-430 Course Length: 160 hour(s)

This course provides training for technicians, engineers, SPS, and FAATC personnel on the New Bedford Panoramex Dual Mode ALSF-2/SSALR, Type FA-10700. The course is 80 hours Academy lecture and 80 hours laboratory. Lecture subjects include electrical safety (high voltage), electro-static discharge (ESD), system overview, safety disconnect switch, 480 VAC input cabinet, 50 KVA transformer, distribution panel high voltage output cabinet, lamp holder shorting device, constant current regulator, control and monitor cabinet, remote control cabinet, remote electronic cabinet, and individual flashers and testers. Lab subjects include operation, preventive maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 40149 Exide Power Conditioning System (PCS) Maintenance

Training Manager: AMA-430 Course Length: 80 hour(s)

This course provides training for technicians on the Exide UPS 3000 Series, 50 KW, 80 KW, 100 KW (but not Exide Powerware or BP Series UPS). The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include overall operation, rectifier charger, inverters, inverter legs, static switch, batteries, and A13 cards. Laboratory subjects include system operating procedures. Students who have completed Course 47604, ACEPS (or equivalent) should not take this course.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 40154 Kohler Engine Generator Power Systems

Training Manager: AMA-430 Course Length: 80 hour(s)

This course provides training for technicians and engineers on Kohler engine generators, control panels, and automatic transfer switches. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include generators, governors, voltage regulators, and theory of Kohler engine generator systems. Laboratory subjects include electrical/electronic maintenance and repair of automatic transfer switches and troubleshooting mechanical and electrical systems. Only for personnel who have had prior engine generator training.

**Prerequisites:** 40127  
**And one of the following:** 44111, 47600, 44117

## 40156 Air Conditioning

Training Manager: AMA-430 Course Length: 120 hour(s)

This course provides training for technicians, engineers, FAA Technical Center personnel, and developmental technicians on air conditioners of 10 tons or less and window-type air conditioners. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Lecture subjects include heat, temperature, pressure, air, basic refrigeration, basic air conditioning, compressors, heat pumps, and electrical and refrigeration troubleshooting. Laboratory subjects include basic refrigeration principles, airflow, troubleshooting analysis, soldering and brazing of piping, and basic maintenance procedures.

**Prerequisites:** None  
**And one of the following:** 44111, 44117

## 40157 UPS-30/160 KVA Balanced Power (BP) III

Training Manager: AMA-430 Course Length: 56 hour(s)

This course provides training for system performance specialists, FAA Technical Center personnel, and developmental technicians on Powerware Plus IPM/BP III Models 30, 40, 50, 65, 80 and 160 uninterruptible power supply (UPS) manufactured by Powerware. The course is 28 hours lecture and 28 hours lab. Lecture subjects include system overview, startup and shutdown procedures, rectifier control board, inverter board, monitor board, power supply modules, software setup and configuration. Lab subjects include startup and shutdown; rectifier, inverter and monitor board setup; module replacements; software configuration and interface with module.

**Prerequisites:** 88440, 88441  
**And one of the following:** 44111, 44117

## 40158 Fiber Optic Concepts

Training Manager: AMA-430 Course Length: 40 hour(s)

This course provides training for technicians, engineers, FAA Technical Center personnel, and developmental technicians on the concepts of fiber optics. This course is 12 hours Academy lecture and 28 hours Academy laboratory. Lecture subjects include fiber optic theory, safety, and emergency restoration. Laboratory subjects include cable structure, power meter and light source operation, fiber preparation and splicing, effects of matching GEL, connectorization optical time domain reflectometer use, and fusion splicing. Due to safety requirements of the course, students are required to wear long pants.

**Prerequisites:** None  
**And one of the following:** None

## 40159 Racal-Premnet Fiber Optic Multiplexer

Training Manager: AMA-430 Course Length: 40 hour(s)

This course provides training for technicians, engineers, FAA Technical Center personnel, and developmental technicians on the Premnet 5000 fiber optic multiplexer. The course is 12 hours Academy lecture and 28 hours Academy laboratory. Lecture subjects include fiber optic applications in an airport loop, loop configuration overview and design, installation and system configuration, CMS 400 software, and system features and components. Laboratory subjects include Premnet 5000 familiarization, Premnet software, troubleshooting Premnet 5000, CMS 400 software familiarization, and troubleshooting with CMS 400 software.

**Prerequisites:** 40158  
**And one of the following:** None

## 40160 ACEPS Standby Power and Distribution System

Training Manager: AMA-430 Course Length: 320 hour(s)

This course provides training for airway facilities technicians, engineers, specialists, and Technical Center personnel on the ACEPS Standby Power and Distribution System. This course is 160 hours Academy lecture and 160 hours Academy laboratory. Lecture subjects include configuration, 48 VDC Power System, GE switchgear, and Woodward and Basier electronic controls. Laboratory subjects include setup, operation, and troubleshooting of equipment.

**Prerequisites:** 45110  
**And one of the following:** None

## 40161 ACEPS Critical Distribution System

Training Manager: AMA-430 Course Length: 200 hour(s)

This course provides training for airway facilities technicians,

engineers, specialists, and Technical Center personnel on the ACEPS critical distribution system. This course is 100 hours Academy lecture and 100 hours Academy laboratory. Lecture subjects include Exide UPMS (450KW) an Exide BTCS. Laboratory subjects include setup, operation, and troubleshooting of equipment.

**Prerequisites:** 40160  
**And one of the following:** None

## 40165 EPA Certification

Training Manager: AMA-430 Course Length: 8 hour(s)

This course provides training for meeting the requirements for the purchase and service of refrigerants for air conditioning applications. Students completing this course will be certified by EPA in accordance with EPA Order 40 CFR Part 82, Subpart F, Section 608. The course exam is a 2-hour closed book.

**Prerequisites:** None  
**And one of the following:** None

## 40213 Runway Visual Range (RVR) Equipment, Type FA-7861

Training Manager: AMA-420 Course Length: 80 hour(s)

This course provides training for technicians on the RVR (SSR), Type FA-7861. The course is 44 hours Academy lecture and 36 hours Academy laboratory. Lecture subjects include transmissometer, signal data converter, runway light intensity relay chassis, and indicators. Laboratory subjects include transmissometer adjustment and calibration, signal data converter performance checks and troubleshooting, and runway light intensity relay chassis adjustment.

**Prerequisites:** None  
**And one of the following:** None

## 40252 Runway Visual Range (RVR) Equipment, Tasker 500

Training Manager: AMA-420 Course Length: 80 hour(s)

This course provides training for technicians on the RVR (Tasker 500), Type FA-9471. The course is 48 hours Academy lecture and 32 hours Academy laboratory. Lecture subjects include transmissometer, ambient light sensor, runway light setting box, signal data converter, and remote display programmer. Laboratory subjects include transmissometer performance checks and calibration, runway light setting box alignment, signal data converter waveform analysis, remote display programmer adjustment, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** None

## 40257 Solid-State Direction Finder (DF), Type FA-9964

Training Manager: AMA-410 Course Length: 80 hour(s)

This course provides training for technicians on solid-state DF equipment. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include doppler DF theory and the complete solid-state DF system. Laboratory subjects include system alignment, preventive and corrective maintenance, and troubleshooting.

**Prerequisites:** 47504  
**And one of the following:** None

## 40258 Distance Measuring Equipment (DME), Models FA-8974/FA-9639

Training Manager: AMA-420 Course Length: 80 hour(s)

This course provides training for technicians on the Second Generation Cardion DME, Type FA-9639. The course is 45 hours Academy lecture and 35 hours Academy laboratory. Lecture subjects include overall design, transponder, test generator, monitor, and remote monitoring systems. Laboratory subjects include preventive maintenance procedures, adjustments and alignments, and troubleshooting.

**Prerequisites:** 44020  
**And one of the following:** 44215, 40276, 40284

## 40261 Doppler VHF Omnidirectional Range (DVOR) System

Training Manager: AMA-420 Course Length: 56 hour(s)

This course provides training for technicians on the second generation VOR modified to Doppler Cardion DME, Type FA-9996. The course is 24 hours Academy lecture and 32 hours Academy laboratory. Lecture subjects include breakdown of Doppler draw er, antennas, and transmitter and monitor screens. Laboratory subjects include screens, alignments, adjustments, preventive maintenance, and fault isolation.

**Prerequisites:** 47701  
**And one of the following:** 40276, 40284

## 40272 VSCS Hardware Maintenance

Training Manager: AMA-410 Course Length: 448 hour(s)

This course provides training for technicians on the hardware for the Voice Switching and Control System (VSCS). The course is 250 hours Academy lecture and 198 hours Academy laboratory. Lecture subjects include system configuration, troubleshooting, software configuration and restoration, and analysis of software diagnostics. Laboratory subjects include fault mitigation, user interface operations,

switching system architecture, telephony controller selection, SIS maintenance, VCET maintenance, system startup/shutdown, TAFL, technical documentation, file management, and database management.

**Prerequisites:** 47012, 88440  
**And one of the following:** None

## 40273 VSCS Site Software Support

Training Manager: AMA-410 Course Length: 584 hour(s)

This course provides training for technicians on the operational software program for the Voice Switching and Control System (VSCS). The course is 292 hours Academy lecture and 292 hours Academy laboratory. Lecture subjects include writing, debugging, and executing programs; updating and modifying adaptation parameters; and modifying, debugging, and executing maintenance and diagnostic programs. Laboratory subjects include TAFL, system management, technical documentation, peripheral operations, file operation, TMF, ESD awareness, MPES operation, user interface operation, system troubleshooting, system startup/shutdown, call processing, and database management.

**Prerequisites:** 47012, 88440  
**And one of the following:** None

## 40283 Theory of Instrument Landing Systems

Training Manager: AMA-420 Course Length: 144 hour(s)

This course provides training for technicians, engineers, and developmental technicians on instrument landing systems (ILS) theory. The course is 112 hours Academy lecture and 32 hours Academy laboratory. Lecture subjects include general ILS theory, transmission-line theory, glideslope theory, and localizer theory. Laboratory subjects include radiation-pattern analysis, equipment adjustments, and ILS test equipment. Students must possess skills required to work algebra and trigonometry problems.

**Prerequisites:** 44715  
**And one of the following:** None

## 40284 Navigation Systems Concepts

Training Manager: AMA-420 Course Length: 168 hour(s)

This course provides training for technicians, engineers, FAA Technical Center personnel and developmental technicians on concepts of navigation systems. The course is 128 hours of lecture and 40 hours of laboratory. Lecture includes transmission line and basic antenna theory, VOR signal generation, VOR radiation patterns, ground check analysis, TACAN introduction, azimuth measurement, distance measurement, and Antenna System. Lab includes introduction to VOR/TACAN, pulse train, azimuth test generator, monitor and control screen introduction, coder/decoder, space modulation, error analysis, VVM introduction, and VOR bridges. Students must be able to work algebra and trigonometry problems.

**Prerequisites:** None  
**And one of the following:** None

## 40285 Low-Power TACAN Antenna Maintenance

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for technicians on the low power TACAN antenna, DC powered, Type FA-10369. The course is 18 hours Academy lecture and 22 hours Academy laboratory. Lecture subjects include azimuth review, assemblies and sub-assemblies, power distribution, trigger generator, bit and test points, cable routing, PM checks, speed control, and troubleshooting. Laboratory subjects include locating assemblies and controls, system alignment, course rotation, built in tests, LRU and antenna removal and replacement.

**Prerequisites:** 47701  
**And one of the following:** None

## 40286 Third Generation VOR/DME Maintenance

Training Manager: AMA-420 Course Length: 120 hour(s)

This course provides training for technicians on the Wilcox Third Generation VOR/DME, Type FA-10391. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Lecture and laboratory subjects include theory of operation, diagnostic procedures, fault analysis, equipment adjustments, alignment and operating procedures, measurements, and analysis of system parameters.

**Prerequisites:** 44215  
**And one of the following:** 40276, 40284

## 40289 VSCS System Overview

Training Manager: AMA-410 Course Length: 112 hour(s)

This course provides training for NAS managers on the Voice Switching and Control System (VSCS). The course is 67 hours Academy lecture and 45 hours Academy laboratory. Lecture subjects include VSCS theory of operations; block-level physical and functional descriptions of hardware, software, and system interfaces; and perform reconfiguration tasks, diagnostic checks, and maintenance procedures for the VSCS and peripheral devices. Laboratory subjects include electrostatic discharge (ESD) system, fault isolation, position reconfiguration, user interface operations, system startup/shutdown, and system-level troubleshooting.

**Prerequisites:** 47012, 88440  
**And one of the following:** None

## 40290 LLWAS NE++

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training to AF personnel on the LLWAS NE++, Type FA10387. This course is 16 hours Academy lecture, 24 hours Academy laboratory, and a final examination. Lecture subjects include LLWAS concepts, NE++ theory of operation, and controls and indicators. Laboratory subjects include system familiarization, performance, maintenance, alignment, and troubleshooting.

**Prerequisites:** 47504, 88440, 88441  
**And one of the following:** None

## 40291 LLWAS RS, Type FA-14100

Training Manager: AMA-420 Course Length: 80 hour(s)

This course provides training for AF personnel on the Low Level Windshear Alert System Relocation and Sustainment (LLWAS-RS), Type FA-14100. This course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include system concepts, major and subassembly identification, communication functions, system displays, functional characteristics, signal flow, MDT, and system software applications. Lab subjects include system operation check, verification, performance, analysis, and alignment.

**Prerequisites:** 47504, 88440, 88441  
**And one of the following:** None

## 40292 Distance Measuring Equipment (DME) Model 415SE

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for airway facilities technicians, engineers, and Technical Denter personnel on the Distance Measuring Equipment (DME) Model 415SE. This course is 20 hours Academy lecture and 20 hours Academy laboratory. Lecture subjects include system theory of operation and maintenance. Laboratory subjects include system alignment, maintenance checks, and fault isolation.

**Prerequisites:** 88440  
**And one of the following:** 40276, 40284, 44215

## 40293 WAAS O&M Equipment Lab

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides hands-on equipment labs for airway facilities technicians and engineers that operate and maintain the WAAS. This course is 40 hours resident laboratory. Subjects include performing corrective maintenance, troubleshooting, and repair on the WAAS O&M Subsystem.

**Prerequisites:** 44223, 88440, 88441  
**And one of the following:** None

## 40294 WAAS Operator Lab

Training Manager: AMA-420 Course Length: 152 hour(s)

This course provides hands-on equipment labs for WAAS operators. This course is 152 hours resident laboratory. Subjects include performing corrective maintenance, troubleshooting, and fault isolation procedures with emphasis on WAAS operations.

**Prerequisites:** 44224, 88440, 88441  
**And one of the following:** None

## 40295 WAAS WRS Equipment Lab

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides hands-on equipment labs for technicians and engineers who maintain WAAS WRS equipment. This course is 40 hours resident laboratory. Subjects include performing corrective maintenance, troubleshooting, and repair of the WAAS WRS.

**Prerequisites:** 44225, 88440, 88441  
**And one of the following:** None

## 40296 WAAS WRS/WMS Equipment Lab

Training Manager: AMA-420 Course Length: 72 hour(s)

This course provides hands-on equipment labs for technicians and engineers who maintain WAAS WRS/WMS equipment. This course is 72 hours resident laboratory. Subjects include performing corrective maintenance, troubleshooting, and repair of the WAAS WRS and WMS.

**Prerequisites:** 44226  
**And one of the following:** None

## 40310 Radar System Analysis for Digitized Radar (Optimization)

Training Manager: AMA-450 Course Length: 120 hour(s)

This course provides training for technicians and engineers who are regularly and actively involved with optimization efforts on radar beacon systems. The course is 60 hours lecture and 60 hours laboratory. Lecture subjects include optimization methodologies, use of software analysis tools for radar/beacon performance evaluation, flight, and commissioning inspections, and optimization procedures for ASR-9 and Mode-S. Laboratory subjects include use of PC's to run software analysis tools to record and analyze live radar and beacon data. Course 44325 serves as the first part of this course and therefore is an absolute, mandatory prerequisite.

**Prerequisites:** 44320, 44325  
**And one of the following:** 40337, 40398

## 40313 Terminal Doppler Weather Radar (TDWR) System

Training Manager: AMA-440 Course Length: 136 hour(s)

This course provides training for technicians on the TDWR System equipment and software interfaces to the RMM. The course is 68 hours Academy lecture and 68 hours Academy laboratory. Lecture subjects include functional analysis of the TDWR System and Subsystems. Laboratory subjects include system performance analysis, fault analysis, and alignment.

**Prerequisites: None**  
**And one of the following: 40392, 42058, 88360**

## 40328 Solid-State Video Mapper

Training Manager: AMA-450 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the Video Mapper, Type FA-8970. The course is 22 hours Academy lecture and 18 hours Academy laboratory. Lecture subjects include familiarization, trigger, sweep, video-generator circuits, and ACP converter circuit. Laboratory subjects include system alignment, system performance, and fault diagnosis.

**Prerequisites: None**  
**And one of the following: 42058, 40392, 88346, 88360**

## 40333 Airport Surveillance Radar (ASR)-8

Training Manager: AMA-450 Course Length: 280 hour(s)

This course provides training for technicians and engineers on the Airport Surveillance Radar (ASR)-8, Type FA-9335. The course is 140 hours Academy lecture and 140 hours Academy laboratory. Lecture subjects include controls, timing, transmitter, normal video, MTI, STC, and RAG. Laboratory subjects include align radar system, fault isolate, and use corrective procedures to restore operation.

**Prerequisites: None**  
**And one of the following: 42058, 40392, 88346, 88360**

## 40335 Air Traffic Control Beacon Interrogator (ATCBI)-4

Training Manager: AMA-440 Course Length: 80 hour(s)

This course provides training for technicians on the Air Traffic Control Beacon Interrogator (ATCBI)-4. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include system concepts, pulse-mode generator, stagger, SLS/ISLS, transmitter, receiver monitors, control circuits, and beacon test set. Laboratory subjects include system alignment, system performance analysis, fault diagnosis, and use of test equipment.

**Prerequisites: None**  
**And one of the following: 40392, 42058, 88360**

## 40337 Airport Surveillance Radar (ASR)-9

Training Manager: AMA-450 Course Length: 360 hour(s)

This course provides training for technicians and engineers on the Airport Surveillance Radar (ASR)-9, Type FA-10064. The course is 160 hours Academy lecture and 200 hours Academy laboratory. Lecture and laboratory subjects include introduction, RMS/system control, synchronizer, transmitter, receiver, post processor, SCIP, and modems/antenna.

**Prerequisites: None**  
**And one of the following: 42058, 40392, 88346, 88360**

## 40340 Radio Communication Link (RCL) Terminal Equipment

Training Manager: AMA-440 Course Length: 80 hour(s)

This course provides training for technicians and engineers on the RCL system equipment located at high-density terminal area control facilities (ACF's) only. The course is 44 hours Academy lecture and 36 hours Academy laboratory. Lectures include introduction, Granger DTL 7300 Multiplexing System, Coastcom channel bank, Fairchild M505M microwave MODEM, and RCL Automated Network Management System. Laboratory includes RCL terminal equipment introduction, Granger DTL 7300 multiplexing system, Coastcom channel bank, Fairfield M505M microwave MODEM, ANMS basic commands, software installation, database construction, and skills.

**Prerequisites: 40600**  
**And one of the following: None**

## 40373 DBRITE

Training Manager: AMA-460 Course Length: 64 hour(s)

This course provides training for technicians on the Digital Bright Radar Indicator Tower Equipment (DBRITE), Type FA-10220. The course is 32 hours Academy lecture and 32 hours Academy laboratory. Lecture subjects include functional theory of DSC equipment, PS&J, RCU, the display, and fault identification and isolation using system diagnostic procedures. Laboratory subjects include DSC equipment, PS&J, RCU, the display, fault identification and isolation, and system alignments.

**Prerequisites: 44020, 88440**  
**And one of the following: 44300, 40392, 42058**

## 40383 ARSR-1/2 En Route Radar System With SSR/DMTI Mod

Training Manager: AMA-440 Course Length: 120 hour(s)

This course provides training for technicians and system performance specialists on the en route radar ARSR-1/2. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Lecture subjects include system concepts, system timing, transmitter operation, and SSR/DMTI monitor and control. Laboratory subjects include orientation, configuration, alignment, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 40388 ARSR-3 and RMM

Training Manager: AMA-440 Course Length: 520 hour(s)

This course provides training for technicians and engineers on the Air Route Surveillance Radar, Model 3 (ARSR-3). The course is 50% Academy lecture and 50% Academy laboratory. Lecture subjects include system overview, subsystem theory, test equipment, BITE, and lab preparation. Laboratory subjects include orientation, configuration, alignment, fault isolation including PATS testing, and Prolab practice.

**Prerequisites:** 42058  
**And one of the following:** 40339, 47706

## 40391 Airport Surveillance Radar (ASR)-9 SCIP

Training Manager: AMA-450 Course Length: 56 hour(s)

This course provides training for technicians and engineers on the indicator-site equipment of the ASR-9 System, consisting of the remote surveillance communications interface processor (SCIP), modems, and Remote Monitoring Subsystem (RMS) terminal. The course is 26 hours Academy lecture and 30 hours Academy laboratory. Lecture subjects include operational procedures for the radar system and its computer control and evaluation system, the RMS laboratory subjects include fault isolation, testing, and alignment procedures. This course is for locations where maintenance is required only for the indicator site equipment.

**Prerequisites:** None  
**And one of the following:** 42058, 40392, 88346, 88360

## 40395 Airport Surveillance Radar (ASR)-7E

Training Manager: AMA-450 Course Length: 200 hour(s)

This course provides training for technicians and engineers on radar, Type FA-8200E. The course is 126 hours Academy lecture and 74 hours Academy laboratory. Lecture subjects include controls, timing, transmitter, normal video, MTI, STC, and RAG. Laboratory subjects include performance evaluation, fault diagnosis, test procedures, and routine checks and adjustments.

**Prerequisites:** None  
**And one of the following:** 42058, 40392, 88346, 88360

## 40398 Mode-S Sensor Maintenance

Training Manager: AMA-450 Course Length: 200 hour(s)

This course provides training for technicians and engineers on the Mode-S System, Type FA-10201. The course consists of 80 hours Academy lecture with CBI simulations and 120 hours of Academy lab. Lecture subjects include monopulse detection theory, equipment operation and block diagram, radar and communication interfaces, and application of the built-in test facilities. CBI subjects include software applications, data processing and auxiliary equipment theory and operation, and use of automated documentation. A graded practical exam verifies students have obtained minimum operational skills. The practical exam grade is weighted equal to a written exam.

**Prerequisites:** 88440, 44320  
**And one of the following:** 42058, 40392, 88346, 88360

## 40399 FPS Series Radar

Training Manager: AMA-440 Course Length: 120 hour(s)

This course provides training for technicians and system performance specialists on the en route radar system AN/FPS series radar without SSR/DMTI. The course is 58 hours Academy lecture and 62 hours Academy laboratory. Lecture subjects include power distribution and control, transmitter RF and power amplifiers, and SSR/DMTI receiver. Laboratory subjects include orientation, alignment, and operation.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 40408 Air Route Surveillance Radar 4 (ARSR-4) Hardware

Training Manager: AMA-440 Course Length: 240 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center personnel on the ARSR-4 long-range radar system. The course is 96 hours Academy lecture and 144 hours Academy laboratory. Lecture subjects include system overview, subsystem theory, and lab preparations. Laboratory subjects include orientation, configuration, fault isolation, and alignment procedures.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 40409 Advanced MPS Network Management

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for personnel who will be managing the MPS Tandem System. The course is 28 hours Academy lecture and

52 hours Academy laboratory. Subjects include Tandem LAN overview, TIM software overview, outside view, subsystem communications facility (SCF) operation, ethernet protocols and TCP/IP, remote/server calls/Piccolo configuration, expand and x.25 networks, Tandem configuration file analysis, and monitoring and troubleshooting the MPS LAN System. Equivalent Tandem training can substitute for courses 43048 and 43049. Equivalent Tandem training includes 43045, 43046, 43047, 43016, 43017, 43018, 43525, and 43522.

**Prerequisites:** 40412, 43048, 43049  
**And one of the following:** None

## 40410 'C' Language Programming

Training Manager: AMA-480 Course Length: 160 hour(s)

This course provides training for AOS programmers in 'C' language programs. The course is 80 hours Academy lecture and 80 hours Academy laboratory. Lecture subjects include overview of 'C' language; input/output in 'C'; variables; program structure; sequential, conditional, and interactive statements; and bitwise operators' pointers. Laboratory subjects include writing programs that pertain to each of the above areas. This course is designed for personnel who have previous high-level programming experience and develop or maintain programs written in 'C' language.

**Prerequisites:** None  
**And one of the following:** None

## 40412 Fundamentals of MCC/MPS Network Management

Training Manager: AMA-480 Course Length: 120 hour(s)

This course provides training for personnel who will be maintaining the software and hardware platform used to provide connectivity from the SOC/OCC to the MPS. The course is 42 hours Academy lecture and 78 hours Academy laboratory. Lecture subjects include LAN theory, Windows NT workstation server configuration, component troubleshooting, and configuration of the software tools i.e.; outside view (MMS), MASS, the event manager program, and the callback program from the point of view of networking. Lab subjects include Windows NT workstation and Windows NT server configuration, troubleshooting of each component, hands on outside view (MMS), MASS, the event manager and callback programs.

**Prerequisites:** 88440  
**And one of the following:** None

## 40417 Automated Surface Observing System (ASOS) Maintenance

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for technicians on the ASOS equipment. The course is 32 hours Academy lecture and 48 hours Academy

laboratory. Lecture subjects include system operations, diagnosis, repair, and restoration to the lowest replaceable unit (LRU). Laboratory subjects include operation, preventive maintenance, remote maintenance monitoring, and troubleshooting.

**Prerequisites:** 47504, 88440  
**And one of the following:** None

## 40418 Fundamentals of Internetworking

Training Manager: AMA-480 Course Length: 160 hour(s)

This course provides training for techs, engs, SPS, and ATSS's on networking using PC's in a local area network (LAN). The course is 80 hours lecture and 80 hours lab. Lectures include network terminology; LAN/WAN topology, components and architecture; network protocols and standards; IP address classes and subnets; and Windows NT server, workstation, configuration and management. Lab includes capture/analyze ethernet management traffic; isolate, decode/analyze, TCP/IP, UDP, RUP, ARP headers; troubleshoot connectivity problems; examine/configure a basic router; troubleshoot network connectivity w/protocol analyzer and the domain reflectometer. Proficiency with Windows is required.

**Prerequisites:** None  
**And one of the following:** None

## 40420 HOST Concepts

Training Manager: AMA-470 Course Length: 128 hour(s)

This course provides hardware and software overview training for computer operators, technicians, and NAS/NOM personnel involved with the HOST Oceanic Computer System Replacement (HOCSR) and NAS operational program. The course is 77 hours Academy lecture and 51 hours Academy laboratory. Subjects include introduction to the IBM 9672 RA-4 Generation 3 (G3) processor, use and operation of controls and indicators of peripheral devices, system operation (initial program load, startup, startover, switchover and reconfiguration), virtual machine and conversational monitoring system concepts, messages, and operation.

**Prerequisites:** 88440  
**And one of the following:** None

## 40421 MVS/VM/DSR Operations for Computer Operators

Training Manager: AMA-470 Course Length: 80 hour(s)

This course provides training for computer operators on Virtual Machine (VM), Multiple Virtual Storage (MVS) commands and messages, utility programs and interactive system productivity facility/program development (ISPF/PDF) panels. The course is 48 hours Academy lecture and 32 hours Academy laboratory. Subjects include problem determination, isolation of software problems, recognizing program and system errors, reconfiguration of system

programs, DSR System overview, tape management, tape drives, printers, terminals, and flight strip printer control unit.

**Prerequisites:** 40420  
**And one of the following:** None

## 40422 Tower Data Link Services (TDLS)

Training Manager: AMA-480 Course Length: 64 hour(s)

This course provides training for technicians and engineers on the TDLS equipment. The course is 32 hours Academy lecture and 32 hours Academy laboratory. Lecture subjects include overview, load the operating system, identify various commands and protocols, maintain software/hardware, and troubleshooting, including disaster recovery. Lab subjects include load the system, use common commands, perform SCO administration, use TCP/IP, configure, maintain software/hardware, and troubleshoot including disaster recovery. This course is intended for students who will maintain the new TDLS system, not the legacy system. This course does not replace 47401.

**Prerequisites:** 40423  
**And one of the following:** None

## 40423 UNIX

Training Manager: AMA-480 Course Length: 112 hour(s)

This course provides training for technicians, engineers, SPS's, NAS managers, and computer operators on the UNIX Operating System used on various PC's. The course is 56 hours Academy lecture and 56 hours Academy laboratory. Lecture subjects include UNIX concepts, processing utilities, power user utilities, Shell programming, user admin utilities, and dialects. Laboratory subjects include using basic UNIX commands, using network utilities, exploring advanced command functionality, using complex regular expressions, and identifying important syntax for dialects.

**Prerequisites:** None  
**And one of the following:** None

## 40424 HID/NAS/LAN Configuration and Maintenance

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the HID/NAS/LAN equipment. The course is 20 hours Academy lecture and 20 hours Academy laboratory. Lecture subjects include components, configuration, flow, operations, and maintenance philosophy. Laboratory subjects include maintenance procedures and troubleshooting procedures.

**Prerequisites:** 40423, 88440, 88441  
**And one of the following:** None

## 40426 HOST Peripheral Devices and Diagnostics

Training Manager: AMA-470 Course Length: 104 hour(s)

This course provides training for technicians, engineers, NAS managers, SPS's, and FAA Technical Center personnel on the Host and Oceanic Computer Replacement (HOCSR) equipment, Model IBM Host 9672-RA4 G3 processors and all attached peripheral devices. The course is 64 hours Academy lecture and 40 hours Academy laboratory. Subjects include peripheral device operations and diagnostics and processor system diagnostics.

**Prerequisites:** 40420  
**And one of the following:** None

## 40428 Stand-Alone Weather Sensors (SAWS) Maintenance

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides training for technicians on the SAWS equipment. The course is 8 hours Academy lecture and 16 hours Academy laboratory. Lecture subjects include system operations, diagnosis, and connecting the laptop to the system. Laboratory subjects include operation, preventive maintenance, and troubleshooting.

**Prerequisites:** 47504, 88440  
**And one of the following:** None

## 40429 Automated Weather Sensor System (AWSS) Maintenance

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for technicians on the Automated Weather Sensor System (AWSS) equipment. The course is 32 hours Academy lecture and 48 hours Academy laboratory. Lecture subjects include system operations, diagnosis, and remote maintenance monitor (RMM). Laboratory subjects include operation, preventive maintenance, and troubleshooting.

**Prerequisites:** 47504, 88440, 88441  
**And one of the following:** None

## 40430 NADIN Network Control Center (NCC) Operations and Mtnce

Training Manager: AMA-480 Course Length: 120 hour(s)

This course provides training for air traffic systems specialists (network control center (NCC) engineers, operations specialists, and technicians) located at NADIN NCC's responsible for operation and maintenance of the NADIN Packet Switch Network (PSN) and NCC. The course is 48 hours Academy lecture and 72 hours Academy laboratory. Lecture subjects include Wide Area Network (WAN) operations and controls, parameters, indications, configurations, and troubleshooting procedures. Laboratory subjects include hands-on

operations and monitoring of the network, local and remote analyzing, diagnosing and troubleshooting, and preventive and corrective maintenance.

**Prerequisites:** 43542  
**And one of the following:** None

## 40431 Automated Weather Observing System (AWOS) Maintenance 133

Training Manager: AMA-480 Course Length: 56 hour(s)

This course provides training for AF technicians on the Automated Weather Observing System (AWOS) equipment. The course is 17 hours Academy lecture and 39 hours Academy laboratory. Lecture subjects include system operations, diagnosis, repair, and remote maintenance monitor (RMM). Laboratory subjects include operation, preventive maintenance, RMM, and troubleshooting. The AWOS Model 300 was modified (ECP 133) to look like an AWOS 900. Modification number PEMEEM 133.

**Prerequisites:** 47504, 88440  
**And one of the following:** None

## 40432 CTAS for System Administrators

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides training for airway facilities technicians and engineers who are system administrators for the Center Traccon Automation System (CTAS). This course is 20 hours Academy lecture and 20 hours Academy laboratory. Lecture subjects include Solaris administration, CTAS TMA software administration and maintenance, Jumpstart server, CTAS TMA security. Lab subjects include system administration, maintenance, and security.

**Prerequisites:** None  
**And one of the following:** 40423, 88433

## 40437 DSR Software Administration and Maintenance

Training Manager: AMA-470 Course Length: 136 hour(s)

This course provides training for AF system performance specialists on DSR software administration and maintenance. This course is 68 hours Academy lecture and 68 hours Academy laboratory. Lecture subjects include system overview, air traffic and software design, maintenance and control (M&C) console operation, system configuration/reconfiguration, AIX commands and system administration, DSR adaptation, software release installation management, problem recovery/resolution, DSR SAR data reduction/analysis, and system hardware/software problem determination. Lab subjects include installation, operation, and configuration of the above subjects.

**Prerequisites:** 40423  
**And one of the following:** 40440, 43556, 43557

## 40439 ACE-IDS Hardware Maintenance

Training Manager: AMA-480 Course Length: 64 hour(s)

This course provides training for technicians on the ASOS Controller Equipment Information Display System (ACE-IDS). Topics covered in the lecture and lab include system introduction, data flow and software, system operations, troubleshooting, preventive maintenance, and field removal and replacement procedures.

**Prerequisites:** 88440, 88441  
**And one of the following:** None

## 40440 DSR Overview

Training Manager: AMA-470 Course Length: 80 hour(s)

This course provides introductory training on the Display System Replacement (DSR). This course is 48 hours Academy lecture and 32 hours Academy laboratory. Lecture and lab subjects include overview of DSR hardware, software, and air traffic operations, operation of the maintenance and control console for system monitoring, and problem recovery and resolution. This course is intended as an introduction to the DSR system and is a prerequisite to course 40441.

**Prerequisites:** 40423, 88440, 88441  
**And one of the following:** None

## 40441 DSR Hardware Maintenance

Training Manager: AMA-470 Course Length: 280 hour(s)

This course provides training for Air Route Traffic Control Center (ARTCC) hardware maintenance personnel who will perform corrective and periodic maintenance on the DSR System. This course is 130 hours Academy lecture and 150 hours Academy lab. Lecture subjects include main display monitor alignment and problem isolation and repair of all DSR hardware to the LRU. Laboratory subjects include console operation, main display monitor alignment, and problem isolation and repair of the hardware to the LRU.

**Prerequisites:** 40423, 40440, 88441  
**And one of the following:** None

## 40442 ACE-IDS Remote Workstation

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides training for AF system specialists on the ASOS Controller Equipment Information Display System (ACE-IDS) remote workstations. This course is 10 hours Academy lecture and 14 hours Academy laboratory. Subjects covered in the lecture and lab include

system introduction, data flow and software, system operations, troubleshooting, preventive maintenance, and field removal and replacement procedures.

**Prerequisites:** None  
**And one of the following:** None

## 40443 Standardized AFCC Operations

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides training for airway transportation system specialists on the Enhanced Maintenance Control Center (MCC) Platform. The course is 8 hours Academy lecture and 16 hours Academy laboratory. Lecture subjects include overview of the enhanced MCC platform environment, using the event manager, using SOPs with the enhanced MCC platform, and applications using the enhanced MCC platform. Laboratory subjects include components of the enhanced MCC platform, using the event manager, call-back and site information, SOPs, web-based applications, remote maintenance monitor system applications, and other applications.

**Prerequisites:** None  
**And one of the following:** None

## 40444 EFSTS Hardware Maintenance Training

Training Manager: AMA-480 Course Length: 32 hour(s)

This course is for technicians and engineers on the EFSTS. The course is 16 hours Academy lecture and 16 hours Academy lab. Lecture subjects include theory and configuration of the EFSTS, preventive/corrective maintenance, and fault isolation procedures. Laboratory hands-on subjects exercises include performance checks, troubleshooting and corrective, and preventative maintenance tasks. There will be a final exam at the end of the course that covers the entire course.

**Prerequisites:** None  
**And one of the following:** None

## 40445 URET System Maintenance

Training Manager: AMA-470 Course Length: 96 hour(s)

This course is intended for all ATSS responsible for maintaining the URET System. Subjects covered in this course are control room floor hardware periodic and corrective maintenance and rack mounted hardware periodic and corrective maintenance, and site support.

**Prerequisites:** 40441, 49304, 47437  
**And one of the following:** None

## 40446 URET System Builds and Release

Training Manager: AMA-470 Course Length: 120 hour(s)

This course is intended for all ATSS software specialists who service the URET System. The course covers knowledge required for first level software support, local system release architectural and support concepts, building a local system release, problem determination procedures, simulation support, and simulation testing.

**Prerequisites:** 40437, 47437  
**And one of the following:** None

## 40447 ECG Overview for NAS/NOM

Training Manager: AMA-470 Course Length: 24 hour(s)

This course provides system-oriented training that addresses the operational aspects of the ECG hardware and software configurations. This course is 24 hours Academy laboratory. Subjects include an ECG overview, PAMRI/ECG differences, ECG equipment and software, Host Computer System (HCS)/ECG System interfaces, and an ECG transition module. The transition module includes tasks that address the switch forward and fallback between PAMRI and ECG.

**Prerequisites:** 47438  
**And one of the following:** None

## 40448 ECG Hardware Maintenance

Training Manager: AMA-470 Course Length: 88 hour(s)

This course provides training for system specialists on the new ECG. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include the operation and monitoring of the ECG System, maintenance of the ECG System to the lowest replaceable unit (LRU) level and the administration of the ECG System. Laboratory subjects include logging in/out of the ECG System, isolating and reintroducing devices, system diagnostics and troubleshooting, controlling device power, monitoring the ECG System, and administering the ECG file and drive systems.

**Prerequisites:** 40423, 40426, 47438, 88440  
**And one of the following:** 40418, 88441

## 40449 ECG Software Maintenance

Training Manager: AMA-470 Course Length: 112 hour(s)

This course provides training for the system specialists on the new ECG. Lecture subjects include the operation and monitoring of the ECG System, maintenance of the ECG System to the lowest replacement unit (LRU) level, maintenance of the ECG software and adaptation, and the administration of the ECG System and system security. Laboratory subjects include logging in/out of the ECG System, isolating and reintroducing devices, system diagnostics and troubleshooting, controlling device power, monitoring the ECG System, managing release cutover and administering the ECG System including the file and drive systems, and system security.

**Prerequisites:** 40423, 47438, 88440, 88441  
**And one of the following:** 40437, 43021, 43520

## 40450 ACE IDS Hardware Maintenance

Training Manager: AMA-480 Course Length: 48 hour(s)

This course provides training for AF system specialists on the ASOS Controller Equipment Information Display System (ACE-IDS). The course is 24 hours Academy lecture and 24 hours Academy laboratory. Subjects covered in the lecture and lab include system introduction, data flow and software, system operations, troubleshooting, preventive maintenance, and field removal and replacement procedures.

**Prerequisites:** 88440, 88441  
**And one of the following:** None

## 40451 Fundamentals of TCP/IP/Routers/Switches

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for techs, engrs, SPS, & ATSS's on configuration and management of LAN/WAN devices. The course is 40 hours lecture and 40 hours lab. Lecture includes networking terminology, LAN/WAN fundamentals, LAN/WAN topology, components and architecture, network protocols and standards, fundamentals of TCP/IP, IP address classes and subnets, configuration and management of basic routers, and configuration and management of switches. Lab includes configuration and management of routers and switches, troubleshooting network/router connectivity with a protocol analyzer, and troubleshooting the switch configuration in a local area network. Proficiency with Windows is required.

**Prerequisites:** None  
**And one of the following:** None

## 40452 ECG/DARC for NOM/NAS Specialist

Training Manager: AMA-470 Course Length: 24 hour(s)

This course is for NAS managers on the ECG/DARC equipment/eBUS software. The course is 4 hours Academy lecture and 20 hours Academy laboratory. Lecture includes a review of ECG/DARC overview course, radar data processing functions, and problem determination. Laboratory covers practical application of tasks associated with each of the aforementioned ECG/DARC overview course and system security, and problem determination. Final exam covers entire course.

**Prerequisites:** 40447  
**And one of the following:** None

## 40453 ECG/DARC for Software Specialist

Training Manager: AMA-470 Course Length: 120 hour(s)

Course for SPSS on ECG equip/eBUS software. The course is 60 hrs Acad lecture & 60 hrs Acad lab. Lecture includes radar data processing functions; hardware changes to ECG & DSR to implement DARC replacement; connection of WARP to backup channel; Windows interface to ECG; procedures to control & operate DARC replacement FM messages, software, & DARC M&C; SMC display format & functionality to include RTQC, eqars, status, error message analysis, & message graphical user screen changes; software system releases & build procedures including DSR & ECG install/cutover/distribution. CDR includes file structure & functions, recording & transferring CDR files, user of CDR editor tools to review & analyze recorded data. DSR off & on line problem determination including software changes, dr&a reports added, deleted, & modified &

**Prerequisites:** 40449  
**And one of the following:** None

## 40454 ECG/DARC Overview for ATSS Hardware Maintenance

Training Manager: AMA-470 Course Length: 40 hour(s)

This course is for techs & SPSS on ECG/DARC equipment/eBUS software. The course is 20 hrs acad lecture & 20 hrs acad lab. Lecture covers radar data processing functions, hardware changes to ECG & DSR to implement DARC replacement, new connection of WARP to backup channel, Windows interface to ECG, procedures to control & operate DARC replacement FM messages, software & DARC M&C, SMC display format & functionality to include RTQC & eqars messages, & message graphical user screen changes, operation of RAID-1 & ZIP250 storage devices. Lab covers practical application of all the above lecture topics, system security, & problem determination within the backup channel. Final exam covers entire course.

**Prerequisites:** 40448  
**And one of the following:** None

## 40455 Solaris for NAS

Training Manager: AMA-480 Course Length: 112 hour(s)

This course provides training for technicians, engineers, SPSS, NAS Mgrs and computer operators on the Solaris operating system used on various NAS systems. The course is 56 hours Academy lecture and 56 hours Academy laboratory. Lecture and laboratory subjects include managing file systems, managing system processes, user and security administration, configuring network interfaces, maintaining virtual file systems, core and crash dumps, file access control, naming services, configuring system logging, performing backups and restores, and performing system and package installations. Final exam covers entire course.

**Prerequisites:** 40423  
**And one of the following:** None

## 40456 A+ Operating System Technologies

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for those who need to install and configure computer hardware devices on Windows 9X/ME, Windows NT 4.0, Windows 2000, or Windows XP operating systems. The course is 40 hours Academy lecture and 40 hours Academy lab. Lecture and lab subjects include OS fundamentals, installing and upgrading Windows, maintaining and optimizing and troubleshooting Windows 9X, ME, and XP operating systems, networking technologies including install and configure wire/wireless networks, troubleshooting networks, and understanding Internet concepts. Final exam at end of course covers entire course.

**Prerequisites:** None  
**And one of the following:** None

## 40457 A+ Hardware Maintenance

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for AF techs who need to maintain personal computers and/or prepare to take Comp/TIA A+ core hardware exam. The course is 40 hours Academy lecture and 40 hours Academy lab. Lecture subjects include personal computer installation, configuring & updates, diagnosis & troubleshooting, preventative maintenance, motherboard, CPUs memory, printers & basic networking. Lab subjects include cabling, power supplies, expansion slots, ports, BIOS, CMOs, BUSs, architecture, hardware installation, configuration, upgrading, diagnosis, troubleshooting, preventative maintenance, motherboards, cpus, memory, printers & basic networking. Final exam covers entire course.

**Prerequisites:** None  
**And one of the following:** None

## 40600 Common Equipment for Radio Communications Link (CE-RCL) Sys

Training Manager: AMA-440 Course Length: 120 hour(s)

This course provides training for technicians and engineers on the radio communication link (RCL) equipment common to the terminal and repeater equipment. The course is 59 hours Academy lecture and 61 hours Academy lab. Lecture subjects include system overview, RCL power plant, DTL-7300 Multiplexing System, FR8 Radio System, orderwire/ANS service channel equipment and ANMS satellite unit. Laboratory subjects include troubleshooting and maintenance of RCL terminal and repeater common equipment, AT&T RCL power plant, Granger DTL-7300 multiplexing systems, AT&T FR8 radio system, and AT&T ANMS satellite telemetry unit.

**Prerequisites:** 44321  
**And one of the following:** None

## 40601 Low-Density RCL (LDRCL) UHF Analog System

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the microwave communications link equipment LDRCL UHF analog system. The course is 26 hours Academy lecture and 14 hours Academy laboratory. Lecture and laboratory subjects include introduction, Microtel analog system multiplexing equipment, microwave data systems (MDS) 960a series 900 Mhz analog point-to-point radios, power conversion products DC power system, and Westronics WS2000 general telemetry processor. Laboratory subjects include location, annual maintenance, alignment, and operation.

**Prerequisites:** 44321  
**And one of the following:** None

## 40603 Low-Density RCL (LDRCL) 1.8 GHz Digital System

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the microwave communications link equipment LDRCL 1.8 GHz and 8 GHz digital system. The course is 65% Academy lecture and 35% Academy laboratory. Lecture subjects include introduction, Wescom 360-22 D4 digital carrier terminal, Alcatel MDR-5000 series microwave digital radio, power conversion products DC power system, and Westronics WS2000 general telemetry processor. Laboratory subjects include location, annual maintenance, alignment, and operation.

**Prerequisites:** 44321  
**And one of the following:** None

## 40605 DBRITE Display (Remote Tower Equipment)

Training Manager: AMA-460 Course Length: 32 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center personnel on the DBRITE tower equipment, Type FA-10225. The course is 50% lecture and 50% laboratory. Lecture subjects include overall system, PS&J, RCU, display video and sync, deflection and focus, and power supplier and bit card. Laboratory subjects include equipment introduction, module replacement, PS&J and aural alarm, vertical and horizontal deflection, video sync, power supplies, and bit and troubleshooting. This course does not contain DSC material (personnel requiring DSC training should take course 40373).

**Prerequisites:** None  
**And one of the following:** None

## 40606 Radiation Hazard Measurement Procedures

Training Manager: AMA-450 Course Length: 24 hour(s)

This course provides training for technicians and engineers on radiation hazard measurement procedures for air traffic control radar and communications equipment. The course covers performing

ionizing and non-ionizing measurements on pulsed systems; calculation of power density levels from the results of measurements; and writing a report documenting the measurement results for the ATC Spectrum Engineering Services. The attendees will be selected by the director of ATC Spectrum Engineering Services.

**Prerequisites:** [44516](#)  
**And one of the following:** **None**

#### **40609 ASDE 3A Hardware/AMASS/TAIU**

Training Manager: AMA-440 Course Length: 128 hour(s)

This course provides training for technicians, engineers, FAATC personnel, and developmental technicians on the Airports Surface Detection Equipment (ASDE)-3 Radar System with Airport Movement Area Safety System (AMASS) and Terminal ARTS Interface Unit (taiu). The course is 54 hours Academy lecture and 74 hours Academy laboratory. Lecture subjects include system operation, transmitter, receiver, antenna, display equipment, and system troubleshooting and analysis. Laboratory subjects include location, operation, maintenance, and troubleshooting, including analysis of visual indicators and use of the remote monitoring subsystem and external personal computer.

**Prerequisites:** **None**  
**And one of the following:** [40392](#), [42058](#), [88360](#)

#### **40611 Weather System Processor (WSP)**

Training Manager: AMA-450 Course Length: 80 hour(s)

This course provides training for technicians and engineers who are responsible for the Weather System Processor (WSP) at selected ASR-9 sites. This course is 40 hours Academy lecture and 40 hours Academy lab. Lecture and lab subjects include operation, preventive maintenance, corrective maintenance, hardware alignment, system alignment, and calibration.

**Prerequisites:** [40337](#), [40423](#), [88440](#), [88441](#)  
**And one of the following:** **None**

#### **40612 Terminal Automation Interface Unit (TAIU) Stand Alone**

Training Manager: AMA-440 Course Length: 16 hour(s)

This course provides training for technicians on the TAIU. The course is 4 hours Academy lecture and 12 hours Academy laboratory (approximately 2 hours per student). Lecture subjects include theory of operation and interface between ARTS III, SCIP, and the ASDE-3. Laboratory subjects include operational and functional checks, periodic preventive maintenance, monitoring, troubleshooting, fault isolation to the LRU, and returning the TAIU to normal operations.

**Prerequisites:** **None**  
**And one of the following:** **None**

#### **40615 Sony/UNIX Introduction**

Training Manager: AMA-490 Course Length: 40 hour(s)

This course provides training for DOD personnel on the Sony Digital Display Monitor, DDM2800. The course is 12 hours Academy lecture, 12 hours Academy laboratory, and 16 hours computer-based exercises (CBE). Lecture subjects include introduction, system operation, UNIX, and display alignment. Laboratory subjects include alignment, using the digital remote controller; diagnostics, and repair. CBE subjects include training on Sun Solaris.

**Prerequisites:** **None**  
**And one of the following:** **None**

#### **40616 STARS Systems Specialists**

Training Manager: AMA-490 Course Length: 200 hour(s)

This course provides the STARS system specialist with a thorough understanding of the concepts necessary to perform STARS system and security administration. This includes: Solaris, VI editor, and networking for SS; file systems; disk structure/partitions; startup and shutdown; backup and restore procedures; crash management; account management; security administration and policy; Solaris security, BSM and auditing; NIS+, SecureShell; STARS-specific security; and STARS System software installation. The STARS security administrator will be able to perform all of the STARS security processes and procedures necessary for continued operation of the STARS operational site within the NAS.

**Prerequisites:** [42071](#)  
**And one of the following:** **None**

#### **40617 ARTS Color Display Complete (ACD, RGW, and Sony DDM)**

Training Manager: AMA-460 Course Length: 80 hour(s)

This course provides training for technicians on the ARTS color display monitor (ACD, RGW, and Sony DDM). The course is 40 hours Academy lecture/40 hours Academy lab. Lecture subjects include VME, PCI, and SCSI buses; Motorola 2700 single board computer; interface modules, converters, and adapters; controllers; digital I/O card; peripheral devices; Sony DDM components; and system troubleshooting. Lab subjects include installation/operation of application software; setup of configuration and environment values; installation of firmware; Sony DDM alignment; RGW monitor graphical user interface operation; RM-10 Sony remote controller operation, CA-100 color analyzer, convergence gauge and AS-10 software package; and system

**Prerequisites:** 42052  
**And one of the following:** None

## 40618 PowerPC Delta

Training Manager: AMA-460 Course Length: 40 hour(s)

This course provides delta training for AF personnel on the PowerPC CP for ARTS III-E. The course is 16 hours Academy lecture and 24 hours Academy lab. Lecture includes theory and operation of the PowerPC CP, TP, and SMC subsystems, the VME chassis, Motorola MVME2700 single board computer, digital input/output card, serial interface card, four port ethernet card, SCSI devices, transition modules, network switches, system software, and system graphical user interfaces on SMC PC. Lab subjects include software downloads to the CP, TP, and SMC, extended diagnostics on all chassis, initializing the MVME2700 single-board computer, preventative maintenance, system performance monitoring, and troubleshooting.

**Prerequisites:** 42052  
**And one of the following:** None

## 40621 Integrated Terminal Weather System (ITWS) Production Model

Training Manager: AMA-440 Course Length: 64 hour(s)

This course provides training for technicians and engineers on the Integrated Terminal Weather System (ITWS) hardware system and its interfaces. This course is 32 hours Academy lecture and 32 hours Academy laboratory. Subjects include equipment theory, site-level maintenance procedures, automated test tools, system-level control and monitoring, board-level fault isolation and replacement, and troubleshooting input/output devices.

**Prerequisites:** 88440, 88441  
**And one of the following:** 12762, 40423

## 40625 STARS Remote Tower Maintenance

Training Manager: AMA-490 Course Length: 40 hour(s)

This course provides training for qualified airway transportation systems specialists on the STARS Automation System used in remote towers. This course is tentatively scheduled for 18 hours Academy lecture and 22 hours Academy lab. Lecture subjects include system introduction, theory and operations. Lab exercises include hands-on learning with the focus on the maintenance and repair of the STARS remote tower equipment.

**Prerequisites:** 88440, 88441  
**And one of the following:** 12751, 40423

## 40626 Micro-EARTS Hardware Maintenance

Training Manager: AMA-460 Course Length: 120 hour(s)

This course provides training for technicians, engineers, SPS's, FAA TC personnel, and AOS on terminal/en route automation equipment. The course is 66 hours Academy lecture and 94 hours Academy laboratory. Lecture includes system theory; functional analysis of radar data acquisition, remote display driver, communications data acquisition, data entry and display, and central processing; keyboard entries; LRU remove/replace; analysis of various printouts; and hardware diagnostics. Lab includes initialization and shutdown, running diagnostics, remove/replace LRUs, system troubleshooting analysis, CDR maintenance and extraction, alignment of data display monitors, and recent hardware changes include

**Prerequisites:** 12762, 44320  
**And one of the following:** None

## 40627 ARTS-III-E Mosaic for AF

Training Manager: AMA-460 Course Length: 32 hour(s)

This course provides training to AF technicians, engineers, and specialists on the ARTS-III-E Mosaic. The course is 8 hours Academy lecture and 24 hours Academy laboratory. Lecture subjects include characteristics of Mosaic, performance monitoring, CQARs analysis, and SCAP functionality. Laboratory subjects include operation of the ACD/SMC, performance monitoring, CQARs operation, and SCAP operation.

**Prerequisites:** 42052  
**And one of the following:** 40608, 40617

## 40638 RCL Terminal Equipment - Delta

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training for airway facilities technicians and engineers on the Unicorn Automated Network Management System. This course is 19 hours Academy lecture and 5 hours Academy laboratory. Lecture subjects include AT&T ACORN Network Control System review, Unicorn Automated Network Management System, hardware description, installation, and alignment, Windows, Metago manager lite, and Metago monitor. Laboratory subjects include hardware alignment, software, and configuration.

**Prerequisites:** None  
**And one of the following:** 40340, 40390, 48161, 48165

## 40643 ASDE-X Core Maintenance

Training Manager: AMA-440 Course Length: 64 hour(s)

This course provides training for technicians on the baseline Airport Surface Detection Equipment Model X (ASDE-X), but does not include the radar subsystem. The course is 31 hours lecture and 33 hours laboratory. Lecture subjects include system operation; multilateration, remote monitoring, tower display and processing subsystems;

maintenance; and troubleshooting. Laboratory subjects include LRU removal and replacement, maintenance and troubleshooting.

**Prerequisites:** 40423, 42058, 44320, 88440, 88441  
**And one of the following:** None

## 40644 Airport Surveillance Radar Model 9 (ASR-9) Resident Lab

Training Manager: AMA-450 Course Length: 200 hour(s)

This ASR-9 lab is for technicians and engineers and includes system operations, performance checks, alignments, fault isolation, and corrective and preventive maintenance. There will be an end-of-course performance examination that covers the entire course. Students are requested to bring the ASR-9 correspondence study materials to be used as reference materials during this lab course.

**Prerequisites:** 44334  
**And one of the following:** None

## 40662 Raytheon SMR for ASDE-X

Training Manager: AMA-440 Course Length: 32 hour(s)

This course provides training for the technician on the Raytheon Surface Movement Radar (SMR) subsystem portion of the ASDE-X. Training is 13 hours lecture and 19 hours laboratory. Lecture subjects include the transmitter/receiver, antenna, and radar processor theory and operation. Labs include LRU removal and replacement, maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40643, 48373

## 40663 SMRI for ASDE-X

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training for the technician on the Sensis Surface Movement Radar Improved (SMRI) Subsystem portion of the ASDE-X. Training is 9 hours lecture and 15 hours laboratory. Lecture subjects include transmitter/receiver, antenna, and radar processor theory and operation. Labs include LRU removal and replacement, maintenance, and troubleshooting.

**Prerequisites:** 40643, 48373  
**And one of the following:** None

## 41705 (CBI/MM) ODAPS for NAS/NOMS and Technicians

Training Manager: AMA-470 Course Length: 44 hour(s)

This course provides training for technicians and NAS managers on the Oceanic Display and Planning System (ODAPS) equipment. The

course is 48% correspondence study, 48% advanced training aids (ATA's), and 4% computer-based instruction (CBI). Correspondence subjects include system overview, power-on/off procedures, software initialization, shutdown procedures, commands and responses, changing operational mode, monitoring system operations and diagnostic tools. ATA subjects include overview and interfaces, power-on/off, startup/shutdown, changing operational mode, commands and messages, and diagnostics. The end-of-course exam is on CBI.

**Prerequisites:** None  
**And one of the following:** None

## 41706 (CBI/MM) ODAPS for Computer Operators

Training Manager: AMA-470 Course Length: 33 hour(s)

This course provides training for computer operators on Oceanic Display and Planning System (ODAPS) equipment. The course is 48% correspondence study, 48% advanced training aids, and 4% computer-based instruction (CBI). Correspondence subjects include system overview, power-on/off procedures, software initialization, shutdown procedures, commands and responses, VM/MVS commands and utilities, changing operational mode, and monitoring system operations. ATA subjects include overview and interfaces, power-on/off, startup/shutdown, changing mode, and commands and messages. The end-of-course exam is on CBI.

**Prerequisites:** None  
**And one of the following:** None

## 42010 Sensor, Receiver, and Processor (SRAP)

Training Manager: AMA-460 Course Length: 160 hour(s)

This course provides training for technicians on the SRAP. The course is 80 hours Academy lecture and 80 hours Academy laboratory. Lecture subjects include RMC, REX (RDAS), and BDAS. Laboratory subjects include lecture support and a graded performance exam. Course not required at ASR-9 sites.

**Prerequisites:** 42027  
**And one of the following:** None

## 42035 ARTS IIIA Data Entry and Display Subsystem (DEDS)

Training Manager: AMA-460 Course Length: 120 hour(s)

This course provides training for technicians on the ARTS IIIA DEDS, Type I and Type II consoles. The course is 72 hours Academy lecture and 48 hours Academy laboratory. Lecture subjects include DEDS theory of operation, alignment, and corrective maintenance; MDBM theory of operation, configuration and corrective maintenance; and DEDS/MDBM diagnostic operation and analysis. Laboratory subjects include DEDS alignment and troubleshooting, MDBM operation through problem operation and troubleshooting using the MDBM diagnostic, and

verification of DEDS operation using the DEDS diagnostic.

**Prerequisites:** 42027  
**And one of the following:** None

## 42039 ARTS IIE for Technicians

Training Manager: AMA-460 Course Length: 240 hour(s)

This course provides training on the Automated Radar Terminal System (ARTS) IIE, Type FA-9020 for technicians and engineers not previously certified on the ARTS IIA equipment. The course is 120 hours Academy lecture and 120 hours Academy laboratory. Lecture and laboratory subjects include introduction, initialization, system maintenance console (SMC), system administration, system processor, diagnostics, Decoding Data Acquisition Subsystem (DDAS), Radar Alphanumeric Display Subsystems (RADS), and keyboard (KBD).

**Prerequisites:** 88440  
**And one of the following:** 40392, 42058, 88360

## 42051 Full Digital ARTS Display (FDAD) Hardware Maintenance

Training Manager: AMA-460 Course Length: 64 hour(s)

This course provides training for technicians on ARTS IIIA/ARTS IIIE FDAD, Type FA-10173. The course is 35 hours Academy lecture and 29 hours Academy laboratory. Lecture subjects include FDAD theory of operation and corrective, periodic maintenance, with EMS precautions. Laboratory subjects include FDAD alignment, operation verification, and troubleshooting analysis.

**Prerequisites:** None  
**And one of the following:** 42004, 42014, 42027, 42036, 42052

## 42052 ARTS IIIE Hardware Maintenance (LRU)

Training Manager: AMA-460 Course Length: 160 hour(s)

This course provides hardware maintenance and limited software maintenance training for technicians on ARTS IIIE system, A6.05 version. The course is 80 hours Academy lecture and 80 hours Academy laboratory. Lecture subjects include system introduction, TP theory of operation, CP theory of operation, SMC theory of operation, chassis mechanical description, computer software configuration item descriptions, local area network (LAN), and VME BUS. Laboratory subjects include system initialization and operation; TP, CP, DP, and SMC subsystem maintenance, and chassis repair; CDR editor, software downloader, troubleshooting, and performance using actual equipment.

**Prerequisites:** 88440, 88441  
**And one of the following:** 40392, 42058, 88360

## 42054 ARTS IIIE (A6.05) NAS/NOM

Training Manager: AMA-460 Course Length: 80 hour(s)

This course provides training for NAS area specialists and operations managers on the ARTS IIIE system. The course is 40 hours Academy lecture and 40 hours Academy laboratory. Lecture subjects include system hardware overview, system initialization, system operations, performance monitoring, and diagnostic outputs. Laboratory subjects include performing analysis of various monitoring activities, operational printouts, and diagnostic outputs for system status and capabilities.

**Prerequisites:** None  
**And one of the following:** None

## 42055 ARTS-IIIE Software Maintenance for SPS's

Training Manager: AMA-460 Course Length: 160 hour(s)

This course provides training for system performance specialists and AUS on ARTS IIIE, A6.05 version. The course is 80 hours Academy lecture and 80 hours Academy laboratory. Lecture subjects include system operation, network concepts, CSCI, operating software, SSIS, and SMCS. Laboratory subjects include troubleshooting software items and network message analysis.

**Prerequisites:** None  
**And one of the following:** None

## 42056 STARS Operational Support Facility Specialist

Training Manager: AMA-490 Course Length: 280 hour(s)

The STARS OSF specialist courses teach OSF adaptation specialists how to create, maintain, update, and test site adaptation for the Standard Terminal Automation Replacement System (STARS). It gives the specialist the background information and theory necessary to investigate system problems, and evaluate and resolve national AOS requests (NAR) for STARS. It also teaches STARS adaptation/software testing procedures and methodology, and the STARS OSF security procedures.

**Prerequisites:** None  
**And one of the following:** None

## 42057 Sony Display Maintenance

Training Manager: AMA-460 Course Length: 32 hour(s)

This course provides training for technicians on the Sony digital display monitor DDM2800 as it is used in the Standard Terminal Automation System (STARS), MicroEARTS, ARTS color display (ACD), and similar automation systems. The course is 10 hours Academy lecture and 22 hours Academy laboratory. Subjects include introduction, system operation, display alignment using the digital remote controller, diagnostics, and repair.

**Prerequisites:** None  
**And one of the following:** None

## 42058 Modern Radar Concepts

Training Manager: AMA-450 Course Length: 200 hour(s)

This course provides basic radar concepts training for technicians placed in a radar discipline. The course is 70 hours Academy lecture and 130 hours Academy lab. Subjects include basic radar system, transmission lines, waveguide components, antenna systems, radar performance, synchronization and testing methods, high-voltage transmitters, solid-state transmitter, radar receivers, MTI, MTD, interfacing types and methods, display systems, and basic beacon systems. Note: Student must be proficient in using a scientific calculator, be proficient in basic algebra & trigonometry. Knowledge of basic electronics theory & devices expected.

**Prerequisites:** None  
**And one of the following:** None

## 42059 MDR-6000 8 GHz Series Microwave Digital Radio LDRCL System

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians, engineers, and SPS's on the MDR-6000 8 GHz series microwave digital radio, LDRCL System and associated equipment. The course is 26 hours Academy lecture and 14 hours Academy laboratory. Subjects include system overview, Wescom channel bank, microwave digital radio and user system interface (USI) program, Ferro and switchmode power supplies, and TSM-2500 RMMS System.

**Prerequisites:** 44321  
**And one of the following:** None

## 42060 TSM-2500 Monitoring and Control LDRCL RMMS System

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians who will be responsible for maintaining the TSM-2500 (transmission system monitor) program and creating new database (i.e., adding additional sites, creating new configuration, and setting up user passwords). The course is 24 hours of Academy lecture and 16 hours of laboratory. Subjects include TSM-2500 System overview and set up, system program operation, MCS-11 database configuration management, polling engine operation and setup, TTY remote user interface, system troubleshooting, and back-up procedures.

**Prerequisites:** None  
**And one of the following:** None

## 42062 Common ARTS Software for OSF Personnel

Training Manager: AMA-460 Course Length: 160 hour(s)

This course provides training for operational support facility (OSF) personnel on common ARTS (A6.05) system software. The course is 80 hours lecture and 80 hours laboratory. Lecture subjects include an overview of the ARTS-II/III hardware are initialization and operation, modification and distribution of the ARTS-II/III software, details of computer software are configuration items (CSCI's), and site adaptation concepts. Laboratory exercises use actual system equipment and include system operation, network concepts, CSCI operating software and building a site adaptation file. Laboratory exercises also include troubleshooting software items.

**Prerequisites:** None  
**And one of the following:** None

## 42063 ATCBI-6 Hardware Maintenance

Training Manager: AMA-450 Course Length: 56 hour(s)

This course provides hardware maintenance training for technicians and engineers on the ATCBI-6. This course is 8 hours lecture and 32 hours Academy laboratory. Lecture subjects include system operation, alignment, configuration, preventive maintenance, troubleshooting, and corrective maintenance. Laboratory subjects include application of system operation, alignment, configuration, preventive maintenance, troubleshooting, and corrective maintenance. Course 44330 serves as the first part of this course and therefore is an absolute, mandatory prerequisite.

**Prerequisites:** 42058, 44330  
**And one of the following:** None

## 42064 TDX 2000 Digitizer

Training Manager: AMA-440 Course Length: 48 hour(s)

This course provides training for airway facilities technicians, engineers, specialists, and Technical Center personnel on the TDX 2000 Digitizer. This course is 22 hours Academy lecture and 26 hours Academy laboratory. Lecture subjects include equipment theory, operations, configurations, preventive maintenance, and other hardware information. Laboratory subjects include operations, preventive maintenance, corrective maintenance, and troubleshooting.

**Prerequisites:** 42058  
**And one of the following:** None

## 42065 RACD Maintenance

Training Manager: AMA-460 Course Length: 80 hour(s)

This course provides training for airway facilities technicians, engineers, specialists, and computer operators on the remote ARTS color display (racd) maintenance. The course is 40 hours Academy lecture and 40 hours laboratory. Lecture subjects include a basic

introduction to RACD, system theory and operation, system components, and system software. Lab subjects include software downloading to an RACD, alignment and repair of a general digital flat screen monitor, initializing the MVME 2700 single-board computer, preventive maintenance, and the system troubleshooting.

**Prerequisites:** 44320  
**And one of the following:** None

## 42066 Automation Interface Unit-II (AIU-II)

Training Manager: AMA-460 Course Length: 16 hour(s)

This course provides training for airway facilities technicians, engineers, and Technical Center personnel on the Automation Interface Unit-II (AIU-II). This course is 4 hours Academy lecture and 12 hours Academy laboratory. Lecture covers AIU-II theory of operation. Laboratory subjects include system operation, preventive maintenance, corrective maintenance, removal and replacement, and system certification.

**Prerequisites:** None  
**And one of the following:** None

## 42069 Airport Surveillance Radar-11 (ASR-11)

Training Manager: AMA-450 Course Length: 120 hour(s)

This course provides training for airway facilities technicians, engineers, and specialists on the Airport Surveillance Radar-11 (ASR-11). This course is 16 hours Academy lecture and 104 hours Academy laboratory. Lecture subjects include system review and pre- and post-lab briefings. Laboratory subjects include periodic maintenance, system configuration, fault diagnosis, and repair. Course 44329 serves as the first part of this course and therefore is an absolute, mandatory prerequisite.

**Prerequisites:** 44329, 88440, 88441  
**And one of the following:** 12758, 40423

## 42070 Micro-EARTS Software Maintenance

Training Manager: AMA-460 Course Length: 120 hour(s)

This course provides training for system performance specialists, FAA Technical Center personnel, and AOS field specialists on Micro-EARTS software maintenance. This course is 56 hours Academy lecture and 64 hours Academy laboratory. Lecture subjects include system theory of operation, system software installation and configuration, site adaptation functions, system analysis, and troubleshooting. Laboratory subjects include system operation, software installation and setup, software functionality, and system analysis.

**Prerequisites:** 12758  
**And one of the following:** 40607, 40626

## 42071 Full STARS Maintenance

Training Manager: AMA-490 Course Length: 200 hour(s)

This course provides training for qualified system specialists on the STARS Automation System used in terminal radar approach control facilities. This course is 82 hours Academy lecture, 94 hours Academy lab, and 24 hours testing. Lecture subjects include an introduction to the system, system operation, Sony monitor, and system components. Lab exercises include hands-on learning and detailed component/system troubleshooting.

**Prerequisites:** 44340, 88440, 88441  
**And one of the following:** 12751, 40423

## 42072 ATCBI-6 Technical On-Site Representative (TOR)

Training Manager: AMA-450 Course Length: 40 hour(s)

This course provides training for technicians and engineers who will accept the ATCBI-6 System for their site. This course is 40 hours Academy lecture. Lecture subjects include integration and acceptance activities which include knowledge and skills necessary to monitor and report status and discrepancies.

**Prerequisites:** None  
**And one of the following:** None

## 42075 ITWS Remote Situation Display

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training for airway facilities technicians, who are located at remote ATCTS and ARTCCS, on the ITWS remote situation display. This course is 10 hours Academy lecture and 14 hours Academy laboratory. Subjects include the ITWS functional description and situation display overview, startup/shutdown procedures, operation, software loading, router configuration, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** None

## 43002 FSAS System Analysis Course

Training Manager: AMA-480 Course Length: 304 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center personnel on the Flight Service Automation System (FSAS). The course is 152 hours Academy lecture and 152 hours Academy laboratory. Lecture and laboratory subjects include Tandem B40 software/utility components, Tandem TXP hardware components, Tandem peripherals, diagnostics, system messages, error messages, FSAS application software modules, FSAS protocols, system tape loading procedures, system start-up and loading procedures, and system analysis hardware and software tools.

**Prerequisites:** None  
**And one of the following:** None

## **43003 AWOS Data Acquisition System (ADAS) Hardware Maintenance**

Training Manager: AMA-480 Course Length: 48 hour(s)

This course provides training for technicians on Automated Weather Observation System (AWOS) ADAS hardware. The course is 24 hours Academy lecture and 24 hours Academy laboratory. Lecture subjects include the system theory of operation, fault diagnosis and isolation, and performance analysis. Laboratory subjects include fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments.

**Prerequisites:** 88440  
**And one of the following:** None

## **43005 AFSS Model 1 Full Capacity (M1FC) Hardware**

Training Manager: AMA-480 Course Length: 120 hour(s)

This course provides training for technicians and engineers on the M1FC automated flight service station (AFSS) DEC LSI 11/23. The course is 60 hours Academy lecture and 60 hours Academy laboratory. Lecture subjects include the functional analysis of the overall system interface/data flow, an operational analysis of each individual device and module, and detailed explanation of required maintenance procedures. Laboratory subjects include operating the equipment and performing preventive and corrective maintenance procedures.

**Prerequisites:** None  
**And one of the following:** None

## **43006 Direct Access Radar Channel (DARC) Operations**

Training Manager: AMA-470 Course Length: 48 hour(s)

This course provides training for NAS managers who have had no previous DARC training. The course is 28 hours Academy lecture and 20 hours Academy laboratory. Lecture subjects include prime DARC interfaces, unit identifications and functions, data and control paths, system start-ups, IOT commands, requests and analyses of RTQC reports, and overview of adaptations and M and D. Laboratory subjects include system familiarization and startup, HCS startup of DARC, unit reconfigurations, R-controls procedures, and error and status message analysis.

**Prerequisites:** None  
**And one of the following:** None

## **43010 High Capacity Voice Recorder (HCVR) Maintenance (60 Channel)**

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on the magnasync HCVR. The course is 16 hours Academy lecture and 24 hours Academy laboratory. Lecture subjects include theory of operation, system operation and evaluation, preventive maintenance procedures, and fault analysis. Laboratory subjects include system operating procedures, system evaluation, routine test procedures, adjustments, and isolation of faults.

**Prerequisites:** 44006  
**And one of the following:** None

## **43012 PAMRI System Maintenance Support**

Training Manager: AMA-470 Course Length: 80 hour(s)

This course provides training for system performance specialists on the Peripheral Adapter Module Replacement Item (PAMRI), including the hardware and software. The course is 48 hours Academy lecture and 32 hours Academy laboratory. Lecture subjects include data flow, formats and messages, data and power distribution, and problem determination/isolation. Laboratory subjects include modem splitter, AU, RDDU, remote RAPPI, MDM, I/O check report, RAPPI PAMRI NAS messages, batch files, and performance examination AU, RDDU, and remote RAPPI.

**Prerequisites:** 88440  
**And one of the following:** None

## **43021 HOST NAS Monitor and FDP for Systems Specialists**

Training Manager: AMA-470 Course Length: 440 hour(s)

This course provides training for systems specialists on the HOST NAS Monitor and FDP. The course is 320 hours Academy lecture and 120 hours Academy laboratory. Lecture subjects include National Airspace System (NAS) monitor, NAS system build procedures, Adaptation-Controlled Environment System (ACES), maintenance diagnostic monitor (MDM) build and execution, on-line certification (OLC) and SIM, and flight data processing (FDP). Laboratory sessions include NAS startup/startover, monitor input messages and output responses, FDP, NAS system builds, MDM, and OLC.

**Prerequisites:** None  
**And one of the following:** 43020, 40420

## **43022 HOST Abort Analysis for Systems Specialists.**

Training Manager: AMA-470 Course Length: 80 hour(s)

This course provides training for systems specialists on the HOST National Airspace System (NAS) software diagnostics and recovery. The course is 65% Academy lecture and 35% Academy laboratory.

Lecture subjects include problem resolution by analysis of NAS software aborts and dumps and monitor off-line programs. Laboratory subjects include NASCOR, DART, NTAP panels, and analyzing program aborts from NASCOR generated dumps.

**Prerequisites:** 43021  
**And one of the following:** None

## 43023 HOST Radar Data Processing for Systems Specialists.

Training Manager: AMA-470 Course Length: 160 hour(s)

This course provides training for system specialists on the HOST Radar Data Processing (RDP) software. The course is 60% Academy lecture, 40% Academy laboratory. Lecture subjects include radar processing and tracking (RPAT), real time quality control (RTQC), display channel outputs (DCO), and off-line radar analysis programs. Laboratory subjects include RPAT, RTQC, and off-line radar analysis programs BFTA, BCST, COMDIG, RARRE, ORRE, QARS, TEARS, AND RSCANS.

**Prerequisites:** 43021  
**And one of the following:** 47207, 43054, 43009

## 43031 En Route Adaptation

Training Manager: AMA-470 Course Length: 200 hour(s)

This course provides training for air traffic control specialists on maintaining, updating, and testing the NAS adaptation database. The course is 60% Academy lecture and 40% Academy laboratory. Lecture subjects include support software products, airspace and air traffic control operations adaptation records, NAS documentation simulation, adaptation controlled environment system, and data analysis and reduction tools. Laboratory subjects include adapting approach control airspace, and building an operational NAS System and testing it.

**Prerequisites:** None  
**And one of the following:** None

## 43033 DAS/RSD Operation and Maintenance

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the ARTCC maintenance control center (AMCC) DAS/RSD equipment. The course is 24 hours Academy lecture and 16 hours Academy laboratory. Lecture subjects include NAS/DAS overview, DAS/MDT operations, real-time status display (RSD), and corrective maintenance. Laboratory subjects include location, operations, field replaceable units, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 47404, 44012

## 43048 MPS Tandem Himalayas K2008 Hardware and Utilities

Training Manager: AMA-480 Course Length: 240 hour(s)

This course provides training for technicians and engineers at ARTCC's on maintaining the Tandem Himalayas K2008 MPS. The course consists of 125 hours Academy lecture and 115 hours Academy laboratory. Subjects include introduction to the MPS, system hardware, SCP operations, TS530 terminal, KC17 System terminal, TACL as a command interpreter, non-stop Kernel concepts, edit program, peruse, Syshealth, View point, TMDS (TMDS, EMS log, CPU and IPB, MDS, COMMFC, tape, CSS, and disk), RCP, system troubleshooting, disk files/FUP, 5126/5170 tape drives and controllers, tapecom; backup and restore, 5518 and 5515 printers, 36xx CSS equipment and utilities (CMI/CMP/CSM/CAP's), and MT224 modems.

**Prerequisites:** 88440  
**And one of the following:** None

## 43049 MPS Tandem Himalaya K2008 Software and Administration

Training Manager: AMA-480 Course Length: 216 hour(s)

This course provides training for technicians and engineers at ARTCC's on maintaining the Tandem Himalaya K2008 Maintenance Processor Subsystem (MPS). The course consists of 113 hours Academy lecture and 103 hours Academy laboratory. Subjects include TACL as a language, introduction to databases, DDL; enform, sql; pathway, enable, MMS/IMCS process and file distribution, TMF, Spoolcom (spooler configuration), DSAP/DCOM, safeguard; introduction to system configuration, context files, install, and system troubleshooting.

**Prerequisites:** 43048  
**And one of the following:** None

## 43485 NADIN Concentrator/Modem Subsystem Hardware, ARTCC

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for technicians on National Airspace Data Interchange Network (NADIN IA) Concentrator/Modem Subsystem. The course consists of 40 hours Academy lecture and 40 hours Academy laboratory. Lecture and laboratory subjects include diagnose concentrator, modem, NADIN Interface Adapter (nia), and the remote user monitor system faults.

**Prerequisites:** 88440  
**And one of the following:** None

## 43519 Direct Access Radar Channel (DARC) for Technicians

Training Manager: AMA-470 Course Length: 312 hour(s)

This course provides training for technicians, engineers, and system performance specialists on DARC. The course is 162 hours Academy lecture and 150 hours Academy laboratory. Lecture subjects include EDARC and National Airspace System/prime channel comparability, system operation, and maintenance procedures on all EDARC equipment. Laboratory subjects include troubleshooting, executing diagnostics, preventive maintenance, system input and output messages, and system certification. Student should be proficient in binary, octal, hexadecimal arithmetic, and digital logic.

**Prerequisites:** 88441  
**And one of the following:** None

## 43520 Enhanced Direct Access Radar Channel (EDARC) Software

Training Manager: AMA-470 Course Length: 280 hour(s)

This course provides training for technicians on EDARC software. The course consists of 140 hours Academy lecture and 140 hours Academy laboratory. Lecture and laboratory subjects include utilities, procedures for program and file maintenance, system operations, system data management, program operations, adaptation procedures, and error analysis.

**Prerequisites:** None  
**And one of the following:** None

## 43535 HOST NAS Operational Software for NAS/NOMS

Training Manager: AMA-470 Course Length: 208 hour(s)

This course provides training for NAS managers on the HOST NAS software. The course is 60% Academy lecture and 40% Academy laboratory. Lecture subjects include NAS monitor, radar data processing (RDP), flight data processing (FDP), input and output messages, adaptation, on-line certification (OLC), aborts, monitor and radar off-line tools, system problems, and system interface. Laboratory subjects include NAS startup/startover, monitor input messages and output responses, RDP, FDP, OLC, and test NAS.

**Prerequisites:** 40420, 47207  
**And one of the following:** None

## 43542 NADIN PSN Hardware Maintenance Course

Training Manager: AMA-480 Course Length: 72 hour(s)

This course provides training for technicians and engineers on the packet switching network (PSN) hardware. The course consists of 36 hours Academy lecture and 36 hours Academy laboratory. Lecture subjects include purpose, operational parameters and indications, and configuration and troubleshooting procedures. Laboratory subjects include location, configuring, analyzing and troubleshooting, and preventive and corrective maintenance.

**Prerequisites:** 88440  
**And one of the following:** None

## 43549 Common Digitizer (CD), Model 2A/B/C/D

Training Manager: AMA-440 Course Length: 160 hour(s)

This course provides training for technicians on the CD Model 2A/B/C/D. The course is 80 hours Academy lecture and 80 hours Academy laboratory. Lecture subjects include a block-diagram analysis, IEEE-488 BUS structure, operating procedures, remote control interface unit as it pertains to the initial remote maintenance monitor equipment, CD-2C equipment used at Air Force/FAA joint-use sites for data tie, and GPA-12A. Laboratory subjects include use of the keyboard, display, trackball, and printer to isolate faults and change operating parameters.

**Prerequisites:** 42058, 88440  
**And one of the following:** None

## 43557 Display System Replacement for NAS Managers

Training Manager: AMA-470 Course Length: 168 hour(s)

This course provides training for NAS managers on the display system replacement. The course is 46% Academy lecture and 54% Academy laboratory. Lecture subjects include DSR overview, console operation, software design overview, system monitoring, system reconfiguration, problem recovery and resolution, processing new software releases, system verification and control room equipment replacement. Laboratory subjects include console operation, system monitoring, system reconfiguration, problem recovery and resolution, processing new software releases, system verification and control room equipment replacement.

**Prerequisites:** None  
**And one of the following:** None

## 44001 Single Sideband Communications

Training Manager: AMA-410 Course Length: 25 hour(s)

This course provides training for technicians on single sideband communications. The course is 100% correspondence study with eight lessons. Subjects include modulated waves and their components, balanced modulators, sideband filters, methods of SSB generation, heterodyning, linear amplifiers, generation considerations, and application of SSB transmission and reception.

**Prerequisites:** None  
**And one of the following:** None

## 44006 Basic Multichannel Recorder Theory

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on the basic multichannel recorder. The course is 100% correspondence study with four lessons. Subjects include general concepts associated with analog and digital magnetic recording, recording heads, tape drive, and transport systems.

**Prerequisites:** None  
**And one of the following:** None

## 44007 Telrad Administrative Telephone Systems (ATS)

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on the Telrad Administrative Telephone System (ATS). The course is 100% correspondence study. Subjects include theory of operation instruction, laboratory equipment performance checks, and troubleshooting procedures.

**Prerequisites:** 47504, 88440  
**And one of the following:** None

## 44009 DAS/RSD Operations

Training Manager: AMA-480 Course Length: 16 hour(s)

This course provides training for NAS managers on Data Acquisition Subsystem (DAS)/Real-time Status Display (RSD) operations. The course is 2 hours correspondence study and 14 hours automated training aids. Subjects include complete functional overview, data flow, alarm acknowledge procedures, and the loading and reloading of operational software.

**Prerequisites:** 88440  
**And one of the following:** None

## 44014 Snow Depth Monitor (SDM) System.

Training Manager: AMA-420 Course Length: 35 hour(s)

This course provides training for technicians on the DME Corporation SDM System, Type FA-10330. The course is 100% correspondence study with field-conducted lab. Subjects include system overview, operation, and maintenance at the line replaceable unit level. Credit for the course requires successful completion of field-conducted lab and end-of-course exam.

**Prerequisites:** None  
**And one of the following:** 40233, 40283

## 44015 Digital Altimeter Setting Indicator (DASI)

Training Manager: AMA-410 Course Length: 24 hour(s)

This course provides training for technicians on the DASI System. The course is 100% correspondence study. Subjects include functional and operational analysis of the overall operation of computer controlled circuits.

**Prerequisites:** None  
**And one of the following:** None

## 44017 Motorola Linear Power Amplifier

Training Manager: AMA-410 Course Length: 16 hour(s)

This course provides training for technicians on the Motorola 50 watt linear power amplifier. The course is 100% correspondence study. Subjects include overview, installation and integration, operation, theory of operation, periodic maintenance, and warranty repair.

**Prerequisites:** 47504  
**And one of the following:** None

## 44019 Motorola CM-200 Overview

Training Manager: AMA-410 Course Length: 2 hour(s)

This course provides training for technicians and NAS managers on VHF and UHF transmitters and receivers, Model CM-200. The course is 100% video tape with student guide. Subjects include overview, installation, operation, maintenance, and warranty repair.

**Prerequisites:** None  
**And one of the following:** None

## 44020 Introduction to Computers

Training Manager: AMA-470 Course Length: 80 hour(s)

This course provides training for technicians and engineers on basic computer operations. The course is 100% correspondence study. Subjects include data processing, computer components and devices, interactive processing, input and output techniques, interfacing systems, processor unit functions, auxiliary storage, data manipulation, various communication protocols and techniques, software applications, programming languages and their uses, operating systems and their software, designed analysis of computer systems, computer systems projects, their coding and implementation, programming techniques, using the Internet and basic network operations.

**Prerequisites:** None  
**And one of the following:** None

## 44021 VTABS Power Subsystem

Training Manager: AMA-410 Course Length: 24 hour(s)

This course provides training for technicians on the power subsystem

for the VSCS Training and Backup System (VTABS) manufactured by Peco II, Incorporated. The course is 100% correspondence study. Subjects include introduction, physical and technical description, controls and indicators, power up and power down procedures, maintenance procedures, removal and replacement LRUs, and preventive maintenance for batteries used in the system.

**Prerequisites: None**  
**And one of the following: None**

## **44023 VSCS Emergency Access Radio System (VEARS)**

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians and NAS managers involved in the operation or maintenance of VSCS and VEARS. The course is 100% correspondence study. Subjects include purpose, overview, configuration and features; technical description, operation, controls and indicators; maintenance procedures and performance checks; installation, integration, and checkout procedures.

**Prerequisites: None**  
**And one of the following: None**

## **44024 PET-2000 Radio Transceiver**

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for AF and at personnel on the operation and maintenance of the Portable Emergency Transceiver-2000 (PET-2000). The course is 100% correspondence study. Subjects include overview of the frequencies, range, power, and modes of operation; installation procedures; detailed adjustment procedures; and performance check procedures, fault isolation, and removal of faulty line replaceable units (LRU).

**Prerequisites: None**  
**And one of the following: None**

## **44025 Recovery Communications (RCOM) Operator**

Training Manager: AMA-410 Course Length: 20 hour(s)

This course provides training for personnel who will operate the Recovery Communications (RCOM) System. The course is 16 hours self-study text and 4 hours computer-based exercises (CBE). Self-study subjects include RCOM purpose and function, equipment and component identification and purpose, system software identification and operation, and system startup/shutdown procedures. CBE subjects include system operation procedures, startup/shutdown, and alarm and alert notifications.

**Prerequisites: None**  
**And one of the following: None**

## **44026 Recovery Communications (RCOM) Maintenance**

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for field maintenance technicians, technical support specialists, and system specialists who are responsible for maintaining the Recovery Communications (RCOM) System. The course is 36 hours self-study text and 4 hours computer-based exercises (CBE) with a paper-based exam. Self-study subjects include RCOM purpose and function, equipment and component identification and purpose, system software identification and operation, startup/shutdown procedures, and troubleshooting. CBE subjects include system operation procedures, fault isolation, and bit testing.

**Prerequisites: None**  
**And one of the following: None**

## **44027 Back-Up Emergency Communications (BUEC) - Remote Site**

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on BUEC Transceivers and Control Systems, Types FA-8190 and FA-8191. The course is 56 hours computer-based instruction (CBI) and 8 hours of field-conducted laboratory. CBI subjects include introduction, control equipment, BUEC transmitter, and BUEC receiver. Lab subjects include coordination of maintenance activities with ATC, BUEC transmitter alignment and performance checks, and buec receiver alignment and performance checks.

**Prerequisites: None**  
**And one of the following: None**

## **44028 Back-Up Emergency Communications (BUEC) - ARTCC**

Training Manager: AMA-410 Course Length: 32 hour(s)

This course provides training for technicians on the BUEC transmitter and receiver, Remote Control Group, Types FA-8192, FA-8193, and FA-8194. This course is 24 hours correspondence study and 8 hours of field-conducted laboratory. Correspondence study subjects include an introduction to the equipment and remote control group. Lab subjects include coordination of maintenance activities with ATC, select command and transmitter keying checks, power supplies check, transmit audio and audio keying level adjustments, and maintenance panel operation.

**Prerequisites: None**  
**And one of the following: None**

## **44029 C3 VHF/FM Handheld Radio End User**

Training Manager: AMA-410 Course Length: 4 hour(s)

This course provides handheld radio users with the required familiarity and basic maintenance instruction to successfully operate the Motorola XTS-3000. The course is 2 hours correspondence study and 2 hours computer-based instruction (CBI).

**Prerequisites:** None  
**And one of the following:** None

## 44100 Engines

Training Manager: AMA-430 Course Length: 80 hour(s)

This course provides training for technicians on engine generator sets. The course is 100% correspondence study. Subjects include theory of internal combustion engines, valve systems, carburetion, ignition, cooling, lubrication, fuels, combustion, engine auxiliaries, and control panels.

**Prerequisites:** None  
**And one of the following:** None

## 44102 Diesel Engine Generators

Training Manager: AMA-430 Course Length: 45 hour(s)

This course provides training for technicians on engine generator sets. The course is 100% correspondence study. Subjects include theory of diesel engines, basic principles, concepts, terminology, and definitions of diesel engine generators and associated control panels, including basic diesel engine operation, fuel systems, governors, and control panels.

**Prerequisites:** None  
**And one of the following:** None

## 44112 Flasher System FA-9989

Training Manager: AMA-430 Course Length: 64 hour(s)

This course provides training for technicians and engineers on the MALSR/REIL Master Timer, Type B, I, II, and III flashers. The course is 100% correspondence study with seven lessons. Subjects include system and circuit analysis, evaluation, repair, and preventive maintenance.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 44113 MALSR/RAIL/REIL

Training Manager: AMA-430 Course Length: 120 hour(s)

This course provides training for technicians and engineers on the runway end identifier lighting (REIL) systems and medium-intensity approach lighting systems (MALS) with runway alignment indicator lights (RAIL) visual landing aid systems. The course is 100%

correspondence study with 11 lessons. Subjects include theory, preventive, and corrective maintenance on the following systems: MALSR's and REIL's, Model/Type REIS, Sylvania REIL-2, Sylvania REIL FA-9437, Godfrey REIL FA-9628, MALS/RAIL Multi-Electric MALSR FA-8767, Sylvania MALSR FA-8982, and SEPCO MALSR FA-9629.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 44114 High Intensity Approach Lighting Systems (ALS)

Training Manager: AMA-430 Course Length: 128 hour(s)

This course provides training for technicians and engineers on ALS substations and sequenced flashers. The course is 100% correspondence study with five lessons. Subjects include theory, preventive, and corrective maintenance on the Westinghouse FA-1772, General Electric GEI-89310, single phase heavy-duty 3CRSBA, and Sylvania sequenced flasher systems.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 44115 Precision Approach Path Indicator (PAPI) Maintenance

Training Manager: AMA-430 Course Length: 64 hour(s)

This course provides training for technicians and engineers on the soncraft PAPI, Type FA-10147. The course is 100% correspondence study with 12 lessons. Subjects include system configuration, adjustments for initial installation, circuit analysis, evaluation, preventive maintenance, performing alignments, and routine performance checks.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 44116 CCMS Maintenance

Training Manager: AMA-430 Course Length: 100 hour(s)

Course provides training for technicians and engineers on the Central Control and Monitoring System (CCMS). The course is 70% correspondence study and 30% field-conducted lab. Correspondence study subjects include: system architecture and operations; DGP/BCC communications; DGP operations; and workstation operation and maintenance. Field conducted laboratory subjects include: system components; workstation operation; system operations; utilities and diagnostics; and PCL programming. Satisfactory completion requires two exams and a certificate from the system tutorial.

**Prerequisites:** None  
**And one of the following:** None

## 44117 Environmental Electrical Concepts

Training Manager: AMA-430 Course Length: 120 hour(s)

This course provides training for technicians on environmental electrical concepts. The course is 100% correspondence study. Subjects include safety, concepts of electricity/magnetism, batteries, electrical conductors, alternating current and vector analysis, basic electrical indicating instruments, transformers, generators, motors, control devices and circuit diagrams, and magnetic amplifiers.

**Prerequisites:** None  
**And one of the following:** None

## 44118 Visual Approach Slope Indicator (VASI)

Training Manager: AMA-430 Course Length: 64 hour(s)

This course provides training for technicians and engineers on VASI West Tech FA-9330, DISAN FA-9873, SEPCO FA-9458, SEPCO FA-9458B, and West Tech FA-9458A. The course is 56 hours correspondence study and 8 hours field-conducted lab with a supervised final exam. Correspondence study subjects include operational characteristics, assemblies, subassemblies, performance checks, maintenance, alignment, adjustments, and troubleshooting. Field-conducted lab is conducted on the equipment at the field facility. This course includes a supervised final examination.

**Prerequisites:** None  
**And one of the following:** 44111, 44117, 47600

## 44202 Vacuum Tube Circuits

Training Manager: AMA-410 Course Length: 30 hour(s)

This course provides training for technicians on vacuum tubes and their circuit application. The course is 100% correspondence study with three lessons. Subjects include vacuum tube circuit analysis, graphical analysis of vacuum tube circuits, equivalent circuits, basic amplifier types, and circuit operation.

**Prerequisites:** None  
**And one of the following:** None

## 44208 Runway Visual Range (RVR) Equipment, FA-7861

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for technicians on the RVR (SSR), Type FA-7861. The course is 100% correspondence study. Subjects include transmissometer system, introduction to RVR computer, and printed circuit modules.

**Prerequisites:** 47504  
**And one of the following:** None

## 44212 Remoting Equipment for VHF/UHF Direction Finder (DF)

Training Manager: AMA-410 Course Length: 23 hour(s)

This course provides training for technicians on basic remoting system. The course is 100% correspondence study with two lessons. Subjects include overall block diagram approach, requirements for control lines and hybrid units necessary to transmit the digital information over phone lines from the control station to the Remote site, frequency shift operation concepts, logic principles and circuitry applicable to the remoting equipment.

**Prerequisites:** 47504  
**And one of the following:** None

## 44215 Distance Measuring Equipment (DME) Principles

Training Manager: AMA-420 Course Length: 24 hour(s)

This course provides training on distance measuring equipment in general. The course is 100% correspondence study. Subjects include DME concepts, terminology, theory of operation, familiarization of the various units of the DME system consisting of the transponder, monitor, test unit, and the control unit, and an analysis of the system functional block diagram. This course has two lessons and a supervised final. The course is a prerequisite for all stand-alone DME equipment courses.

**Prerequisites:** None  
**And one of the following:** None

## 44216 LORAN-C Monitor (FA-10232)

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for technicians on the LORAN-C monitor/receiver, FA-10232. The course is 100% correspondence study with four modules. Subjects include operation, software/hardware overview, troubleshooting, and periodic maintenance. OJT practical exercises, exam, and the four modules are required for successful completion.

**Prerequisites:** None  
**And one of the following:** None

## 44217 Direction Finder 5530 and Remoting Equipment 5571/5572

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on the 5530 direction finder (DF) and the 5571/5572 direction finder remoting equipment (RDF). The course is 100% correspondence study with seven lessons. Subjects for DF equipment include doppler theory, Antenna System, receiver, data extractor, local and remote indicators, time

domain filter, bearing evaluator monitor, and air ground adapter. Subjects for the remoting equipment include FSK theory, control, and data systems. A basic understanding of vacuum tubes and transistor operations is helpful.

**Prerequisites:** None  
**And one of the following:** None

## 44218 Non-Directional Beacon (NDB) System

Training Manager: AMA-420 Course Length: 80 hour(s)

This course provides training for technicians on the Scientific Radio System NDB, FA-9589. The course is 100% correspondence study with 13 lessons. Subjects include the remote monitor receiver, station transmitter, use of the facility input/output terminals (IOT), the antenna tuning unit, and antenna. Graded practical sessions are used to develop skills in performing alignment, fault diagnosis, and routine checks on the NDB System.

**Prerequisites:** 47504  
**And one of the following:** None

## 44219 VORTAC Enhancements, FA-9996

Training Manager: AMA-420 Course Length: 20 hour(s)

This course provides training for technicians on the VHF Omni-range Tactical Air Navigation (VORTAC) enhancement kit for the Type FA-9996 VORTAC System. The course is 100% correspondence study. Subjects include technical description and purpose of enhancements, enhancement operations and data screen changes, and periodic and corrective maintenance.

**Prerequisites:** 44216, 47701  
**And one of the following:** None

## 44220 RMVC/2nd Gen VORTAC Overview for MCC Specialists

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for system performance specialists and computer operators on monitoring the 2nd Gen VORTAC using the Interim Monitor Control System (IMCS) through the Remote Maintenance VORTAC concentrator (RMVC). The course is 50% correspondence study and 50% field-conducted lab training. Correspondence study subjects include the IMCS application to remotely monitor and control 2nd Generation VORTAC facilities, as part of the Remote Maintenance Monitoring System. Field-conducted lab subjects include exercises at the MCC terminals.

**Prerequisites:** None  
**And one of the following:** None

## 44221 GPS Concepts

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for personnel on Global Positioning System (GPS) concepts. The course is 100% correspondence study and includes a supervised open-book final exam. Subjects include GPS overview, ranging, navigation data message, satellite signal structure and receiver processing, GPS errors, and differential GPS.

**Prerequisites:** None  
**And one of the following:** None

## 44222 Teledyne RVR, Type 10268/1-6

Training Manager: AMA-420 Course Length: 12 hour(s)

This course provides theory training for airway facilities personnel on the Runway Visual Range, Type 10268/1-6. This course is 12 hours correspondence study. Subjects include a system overview, visibility sensor (VS), ambient light sensor (ALS), current sensors (CS), sensor interface electronics (SIE), data processing unit (DPU), controller display (CD) operations, standards, and tolerances, and periodic maintenance procedures. Course requires TI 6560.17, 6560.31, and 6990.2 for reference.

**Prerequisites:** None  
**And one of the following:** None

## 44223 WAAS O&M Equipment (Theory)

Training Manager: AMA-420 Course Length: 60 hour(s)

This course provides theory training for airway facilities technicians and engineers on the WAAS operations and maintenance (O&M) equipment. This course is 60 hours correspondence study. Subjects include an introduction to WAAS, use of the interactive electronic technical manual (IETM), a description of WAAS components at all sites including interfaces and purpose of all line replaceable units (LRUs), and an emphasis on corrective maintenance procedures for the O&M subsystem.

**Prerequisites:** 44221, 88440, 88441  
**And one of the following:** None

## 44224 WAAS Operator (Theory)

Training Manager: AMA-420 Course Length: 120 hour(s)

This course provides theory training for airway facilities technicians and engineers that are WAAS operators. This course is 120 hours correspondence study. Subjects include an introduction to WAAS, use of the interactive electronic technical manual (IETM), a description of WAAS components at all sites including interfaces and purpose of all line replaceable units (LRUs), corrective maintenance procedures for the WRS, WMS, and O&M Subsystem, GEO Uplink Subsystem, and all WAAS System operations. This course requires a final supervised exam for completion.

**Prerequisites:** 44221, 88440, 88441  
**And one of the following:** None

## 44225 WAAS WRS Equipment (Theory)

Training Manager: AMA-420 Course Length: 60 hour(s)

This course provides theory training for airway facilities technicians and engineers that maintain the WAAS wide area reference station (WRS) equipment. This course is 60 hours correspondence study. Subjects include an introduction to WAAS, use of the interactive electronic technical manual (ietm), a description of WAAS components at all sites including interfaces and purpose of all line replaceable units (LRUs), and an emphasis on corrective maintenance procedures for the WRS. This course requires a final supervised exam for completion.

**Prerequisites:** 44221, 88440, 88441  
**And one of the following:** None

## 44226 WAAS WRS/WMS Equipment (Theory)

Training Manager: AMA-420 Course Length: 80 hour(s)

This course provides theory training for airway facilities technicians and engineers that maintain the WAAS wide-area reference station/wide-area master station (WRS/WMS) equipment. This course is 80 hours correspondence study. Subjects include an introduction to WAAS, use of the interactive electronic technical manual (ietm), a description of WAAS components at all sites including interfaces and purpose of all line replaceable units (LRUs), and an emphasis on corrective maintenance procedures for the WRS and WMS. This course requires a final supervised exam for completion.

**Prerequisites:** 44221, 88440, 88441  
**And one of the following:** None

## 44300 Introduction to Radar Techniques

Training Manager: AMA-450 Course Length: 100 hour(s)

The course provides review, preparation, or supplemental training for technicians and engineers on radar. The course is 100% correspondence study with a supervised final exam. Subjects include introduction to NAS, brief history of radar, block diagram of a typical radar, pulse terminology, the ideal pulse, limitations to transmitting the ideal pulse, the radar range equation, factors that limit minimum or maximum range waveguides, auxiliary waveguide components, crystal mixers, secondary radar systems. This course is not equivalent to courses 40392 or 42058.

**Prerequisites:** None  
**And one of the following:** None

## 44317 Digital Defruiter

Training Manager: AMA-450 Course Length: 32 hour(s)

This course provides training for technicians on the Digital Defruiter, Type MX 8757. The course is 100% correspondence study with a final exam. Subjects include functional analysis, including overall system operation, detailed analysis of data flow, schematics, logic diagrams, system alignment, maintenance techniques, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40335, 45309, 45310

## 44320 Secondary Radar Principles

Training Manager: AMA-450 Course Length: 40 hour(s)

This course provides training for technicians (who plan to attend ATCBI or Mode S training) on beacon systems. The course is 100% correspondence study with six chapters and a supervised final exam. Subjects include radar beacon systems, transmitters and receivers, antennas, transponders, ATCBI problems, and Mode S Beacon System.

**Prerequisites:** None  
**And one of the following:** None

## 44321 Microwave Communications Link Principles

Training Manager: AMA-440 Course Length: 120 hour(s)

This course provides training for technicians and engineers on microwave communications link equipment. The course is 100% correspondence study with a final exam. Subjects include an overview of FAA microwave communications link systems; general system concepts and basic block-diagram analysis; principles of microwave communications link operation common to both terminal and repeater facilities, such as amplitude and frequency modulation, single-sideband communications, multiplexing techniques and modulation plans, frequency translation techniques, system performance analysis, and mathematics for microwave communications.

**Prerequisites:** None  
**And one of the following:** None

## 44323 Radar Beacon Performance Integral System Monitor

Training Manager: AMA-440 Course Length: 64 hour(s)

This course provides training for technicians on the Radar Beacon Performance Integral System Monitor. The course is 100% correspondence study with a final exam. Subjects include system concepts, interface with beacon systems, system tolerances, control circuits, monitor circuits, system alignment, and performance analysis.

**Prerequisites:** None  
**And one of the following:** 40339, 45309, 45310

## 44325 Introduction to Radar Optimization

Training Manager: AMA-450 Course Length: 120 hour(s)

This course provides training for technicians, engineers, and system performance specialists on primary and secondary radar systems. The course is 100% correspondence study. Subjects include optimization fundamentals related to terminal and en route primary and secondary radar, antenna systems, transponders, and flight check and commissioning inspections. FAA Order 6300.13, Radar System Optimization and Flight Inspection Handbook is used as a primary study manual. Completion of this course is required prior to enrollment in course 40310 as this course serves as the first part of 40310.

**Prerequisites:** 44320  
**And one of the following:** None

## 44326 Digital Video Mapper

Training Manager: AMA-450 Course Length: 8 hour(s)

This course provides training for technicians and engineers on the digital video mapper equipment. The course is 100% correspondence study. Subjects include description, components, basic and detailed circuit operation, corrective and preventive maintenance activities, alignments, and system installation.

**Prerequisites:** None  
**And one of the following:** None

## 44327 Rms/MPS Interface Computer (Rmic)

Training Manager: AMA-440 Course Length: 8 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center Personnel on the RMIC equipment. The course is 100% correspondence study. Subjects include operation, corrective maintenance procedures, and maintenance procedures.

**Prerequisites:** 40381  
**And one of the following:** None

## 44328 Mode S BVR Hardware Maintenance

Training Manager: AMA-450 Course Length: 16 hour(s)

This course provides training for technicians on the Mode S Beacon Video Reconstitutor (BVR). The course is 3 hours self-study with 13 hours of computer exercises. Subjects include system operation, functional overview, functional description of site adaptation parameters (SAP), routine check (monitoring system operations), troubleshooting, reacting to failures, restoration after failures, preventive maintenance, diagnostic checks, definitions of messages,

fault isolation, verifying program logic devices on boards, changing into and out of the interim beacon interrogator mode (Mode S backup), and ARTS IIA/modes s interface.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 44329 ASR-11 Hardware Maintenance

Training Manager: AMA-450 Course Length: 60 hour(s)

This course provides training for technicians, engineers, system performance specialists, FAA Technical Center personnel, and developmental technicians on ASR-11 primary surveillance radar (PSR) and monopulse secondary surveillance radar (MSSR). This course is 100% correspondence study with a computer simulation training aid (shipped with course materials) and two written exams. Subjects include PSR and MSSR theory of operation, block diagram signal flow, monopulse, false target elimination, MTD process, tracking, and troubleshooting. Completion of this course is required prior to enrollment in course 42069 as this course serves as the first part of 42069.

**Prerequisites:** 42058  
**And one of the following:** None

## 44330 Air Traffic Control Beacon Interrogator-6 (ATCBI-6)

Training Manager: AMA-450 Course Length: 24 hour(s)

This course provides training for technicians and engineers who maintain and repair the ATCBI-6 System. This course is 24 hours correspondence study with a computer simulation that is packaged with the materials. The course covers basic radar theory, monopulse theory, CMS terminal operation, equipment description, system operation, configuration, and preventive maintenance. Completion of this course is required prior to enrollment in course 42063 as this course serves as the first part of 42063.

**Prerequisites:** 42058  
**And one of the following:** None

## 44331 Motorola FT100S Data Service Unit/Channel Service Unit

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training for installation and maintenance personnel on the Motorola FT100S Data Service Unit/Channel Service Unit (DSU/CSU). The course is 100% correspondence study with a final exam. It provides guidelines for implementing a national interface standard that connects the TDWR to the ITWS, using the Motorola FT100S DSU/CSU in conjunction with the Microwave Communications, Inc. (MCI) Lincs T1 Transmission Network. Subjects include functional/physical descriptions of the DSU/CSU, installation procedures, hardware configuration, option selection,

maintenance/troubleshooting procedures, specifications, and a T1 overview on the North America T1 Digital T-Carrier System.

**Prerequisites:** None  
**And one of the following:** None

## 44332 Motorola 3261FAST V.34 Modem

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training for installation and maintenance personnel on the Motorola 3261FAST V.34 MODEM. The course is 100% correspondence study with a final exam. It provides guidelines for implementing a national interface standard connecting the ANWSR-88 NEXRAD to the ITWS, using the Motorola 3261FAST V.34 Modem in conjunction with the Microwave Communications, Inc. (MCI) Lincs Transmission Network. Subjects include functional/physical descriptions of the Modem, installation/configuration procedures, testing/troubleshooting procedures, interface and cabling pinouts, and specifications.

**Prerequisites:** None  
**And one of the following:** None

## 44333 WSP for TRACONS

Training Manager: AMA-450 Course Length: 24 hour(s)

This course provides training for AF technicians, engineers, and technical center personnel on WSP for TRACONS. This course is 24 hours correspondence study with on-site labs and a supervised end-of-course exam. Subjects include system theory of operation, preventive and corrective maintenance actions, and operation of the maintenance display screens.

**Prerequisites:** 88440, 88441  
**And one of the following:** None

## 44334 Airport Surveillance Radar Model 9 (ASR-9)

Training Manager: AMA-450 Course Length: 240 hour(s)

This course provides training for technicians and engineers on the Airport Surveillance Radar Model 9 (ASR-9). The course is 100% correspondence study with a computer simulator. The correspondence study portion consists of the ASR-9 theory of operation, which includes signal flow and fault analysis. An ASR-9 simulator is included that will be installed on the student's PC, with which the student will complete various exercises. The student's supervisor will administer four written open-book exams requiring an overall average grade of 70% or better for satisfactory completion.

**Prerequisites:** 42058  
**And one of the following:** None

## 44335 Remote Monitoring and Control (RMC)

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training on the remote monitoring and control (RMC) equipment. Subjects include a functional description of the equipment, remote monitoring and control (RMC) hardware functions, uninterruptible power supply (UPS) hardware and operations, maintenance data terminal (MDT) operations, and RMC corrective maintenance.

**Prerequisites:** None  
**And one of the following:** None

## 44336 TDX 2000 Digitizer

Training Manager: AMA-440 Course Length: 48 hour(s)

This course provides training for airway facilities technicians, engineers, system performance specialists, and Technical Center personnel on the TDX 2000 Sensis Digitizer. The course is 30 hours correspondence study with 18 hours of field conducted laboratory. Correspondence study subjects include equipment theory, operations, configuration, preventive maintenance, corrective maintenance, and other hardware information. Lab subjects include operations, preventive maintenance, corrective maintenance, and troubleshooting.

**Prerequisites:** 42058  
**And one of the following:** None

## 44338 NAV Canada - FAA Pseudo Radar Site Equip. Phase 2

Training Manager: AMA-440 Course Length: 6 hour(s)

This course provides an overall description of the equipment, its components, and functions. This course is 100% correspondence study with a final exam at the end of the course that covers the entire course. The course will prepare the AF systems specialist to maintain, troubleshoot and restore the PRP2 remote site equipment to service; as well as to follow the removal and replacement procedures established between NAV Canada and the FAA.

**Prerequisites:** None  
**And one of the following:** None

## 44339 STARS for Supervisors

Training Manager: AMA-490 Course Length: 8 hour(s)

This course provides training for NAS managers and supervisors on the STARS. This course is 8 hours correspondence study. Subjects include an introduction to STARS, SOS operation, and support functions. This course includes a final examination. Course materials will be shipped on a CD-ROM.

**Prerequisites:** None  
**And one of the following:** None

## **44340 Sony Data Display Monitor (DDM) Maintenance**

Training Manager: AMA-490 Course Length: 24 hour(s)

This course is taught as a prerequisite of the STARS maintenance course. This course is 100% correspondence study with a final exam at the end of the course that covers the entire course. This course provides training for airway transportation systems specialists, electronic technicians, engineers, NAS managers, SPS's, FAA Technical Center personnel, and developmental technicians on the Sony DDM.

**Prerequisites:** None  
**And one of the following:** None

## **44423 Maintenance Automation System Software (MASS)**

Training Manager: AMA-480 Course Length: 32 hour(s)

This course provides training for air transportation systems specialists, engineers, and NAS/NOM personnel who are responsible for monitoring and controlling the National Airspace System hardware through the monitor and control function (MCF) of MASS. The course is 100% correspondence study with practice exercises that use the fielded MASS/MCF software on an MC workstation/MDT connected to an OKC MPS System. Subjects include the MASS environment, monitoring subsystem status, subsystem parameters, remote control actions, and customizing features. Students must have knowledge of Windows 95 to complete the training. They should review the Windows 95 tapes on file at their site.

**Prerequisites:** None  
**And one of the following:** None

## **44436 PAMRI Overview for Computer Operators**

Training Manager: AMA-470 Course Length: 3 hour(s)

This course provides training for technicians on the Peripheral Adapter Module Replacement Item (PAMRI) system. The course is 100% correspondence study with an open book final exam. Subjects include hardware, software, and functional characteristics. This course is a prerequisite for all PAMRI training courses.

**Prerequisites:** None  
**And one of the following:** None

## **44438 Radar Data Acquisition Subsystem (RDAS)**

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides training for technicians and engineers on Radar Data Acquisition Subsystem principles (primary radar, secondary radar, Mode S, and digitizers). The course is 100% correspondence study. Subjects include flow of radar data from the radar facility to the ARTCC, including reports from various analysis programs (QARS, EQARS, BFTA, and TDR).

**Prerequisites:** 47207  
**And one of the following:** None

## **44439 IBM 6400 Line Matrix Printer**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians, engineers, SPS's, FAA Technical Center personnel, and developmental technicians on the IBM 6400-05P line matrix printer. The course is 100% correspondence study. Subjects include theory of operation, maintenance procedures, diagnostics, and replacement and repair procedures. Students are required to perform exercises in printer setup, adjustment, and replacement/repair. Additional information is given in an addendum for the IBM 6400 P50, and 6400 050 printers.

**Prerequisites:** None  
**And one of the following:** None

## **44440 DARC for Technicians, Delta Phase 1**

Training Manager: AMA-470 Course Length: 24 hour(s)

This course provides Delta training for technicians on the DARC System, Type FA-9665, Phase 1 Display Processor (DP) replacement. The course is 100% correspondence study. Subjects include DP configuration changes, support console, and maintenance and diagnostic (M&D) changes.

**Prerequisites:** 43519  
**And one of the following:** None

## **44441 DARC Software Specialists, Delta Phase 1**

Training Manager: AMA-470 Course Length: 24 hour(s)

This course provides Delta training for system performance specialists on the DARC System, Type FA-9665, Phase 1 Display Processor (DP) replacement. The course is 100% correspondence study. Subjects include DP configuration changes, support console, and maintenance and diagnostic (M&D) changes.

**Prerequisites:** 43520  
**And one of the following:** None

## **44442 DARC Operations, Delta Phase 1**

Training Manager: AMA-470 Course Length: 8 hour(s)

This course provides Delta training for NAS managers on the DARC System, Type FA-9665, Phase 1 display processor (DP) replacement. The course is 100% correspondence study. Subjects include DP configuration changes and support console messages.

**Prerequisites:** [43006](#)  
**And one of the following:** None

## 44443 Maintenance Management System for Users

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the Maintenance Management System (MMS). The course is 100% correspondence study. Subjects include using the maintenance terminal and all MMS functions. This course will be available the second quarter of FY-2001.

**Prerequisites:** None  
**And one of the following:** None

## 44444 NAS Overview for Control Center Specialists

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides overview training for control center specialists on the equipment and services comprising the National Airspace System (NAS). The course is 100% correspondence study. Subjects include overview of equipment located at FAA sites, services, NAS Infrastructure Management System (NIMS), role of control center specialist in NIMS and NAS, typical flight pattern, and future projections for NAS.

**Prerequisites:** None  
**And one of the following:** None

## 44445 Integrated Term Weather Sys (ITWS) OPS for AFCC Spec

Training Manager: AMA-480 Course Length: 24 hour(s)

This course is intended for trained AF control center specialists who remotely monitor the National Airspace System (NAS). This 100% correspondence study course trains the specialist to evaluate ongoing Integrated Terminal Weather System (ITWS) operations through remote monitoring and minimize NAS impact in the event of ITWS equipment failure. Subjects include system description, system operations, and remote maintenance monitoring information.

**Prerequisites:** [44423](#)  
**And one of the following:** None

## 44446 AFCC Website Familiarization

Training Manager: AMA-480 Course Length: 16 hour(s)

The course is for supervisory personnel who will be using the AFCC website to perform callback and site information maintenance procedures. This course is a self-paced correspondence study, consisting of lessons in the student guide and demonstrations on an accompanying CD-ROM. Students will perform hands on lab exercises at an AFCC website console.

**Prerequisites:** None  
**And one of the following:** None

## 44447 MDM Re-HOST Delta

Training Manager: AMA-470 Course Length: 16 hour(s)

This course provides delta training for technicians, NAS managers, system performance specialists, and FAA technical personnel on the multiprogramming diagnostic monitor (MDM) and the new DIAG, QARS, and POMM on-line test tools (OLTT) now re-hosted to run under NAS. This course is 16 hours correspondence study with a final examination.

**Prerequisites:** None  
**And one of the following:** [40426](#), [43535](#)

## 44448 HOST M&C Operations for System Personnel

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for AF NAS managers/NOMS and computer operators who have a working knowledge of the current HOST storage subsystem. This course is 40 hours correspondence study with field exercises to provide hands-on familiarity. Subjects include an overview of the disk monitor and control (M&C), operations for M&C, and subsystem management. Satisfactory grade on final examination is required for course completion.

**Prerequisites:** None  
**And one of the following:** [40420](#), [43014](#), [43035](#), [43037](#), [43040](#)

## 44449 HOST M&C for Hardware and SPS Personnel

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for AF technicians (hardware maintenance) who have a working knowledge of the current HOST storage subsystem. This course is 40 hours correspondence study with field exercises to provide hands-on familiarity. Subjects include an overview of the disk monitor and control (M&C) subsystem, operations for M&C, subsystem management, hardware management, fault detection, analysis, and device group isolation. Satisfactory grade on final examination is required for course completion.

**Prerequisites:** [44448](#)  
**And one of the following:** [43014](#), [40420](#), [43035](#), [43040](#)

## 44450 HOST M&C for SPS (Software) & AOS-370

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for AF system specialists and AOS-370 personnel who have a working knowledge of the current HOST storage subsystem. This course is 40 hours correspondence study with field exercises to provide hands-on familiarity. Subjects include an overview of monitor and control (M&C), operations for M&C, subsystem management, hardware management, and system administration. Satisfactory grade on final examination is required for course completion.

**Prerequisites:** 44449  
**And one of the following:** 40420, 43014, 43035, 43040

## 44451 HOST KVDT Replacement

Training Manager: AMA-470 Course Length: 8 hour(s)

This course is intended for FAA personnel who have a background in the Host Computer System. This course is 100% correspondence study with separate module tests. The replacement for the 3180 KVDT console is a Visara 1883, Visara keyboard and NEC monitor (KVDT). This course is the components, functions, and maintenance of the replacement Visara KVDT.

**Prerequisites:** None  
**And one of the following:** None

## 44506 General Maintenance Handbook

Training Manager: AMA-450 Course Length: 40 hour(s)

This course provides proficiency training for developmental technicians on maintenance concepts of the NAS in the FAA. The course is 100% correspondence study with six lessons and no final exam. Subjects include definitions, technical documentation, technical requirements and procedures, use of facility maintenance forms, inspection programs, joint acceptance, flight inspections, service interruptions and restoration, and certification of all FAA facilities and services. There are reading assignments in FAA Order 6000.15C, General Maintenance Handbook for Airway Facilities.

**Prerequisites:** None  
**And one of the following:** None

## 44511 Electronic Test Equipment

Training Manager: AMA-420 Course Length: 85 hour(s)

This course provides training for developmental technicians on a wide variety of test equipment. The course is 100% correspondence study with six units and a final exam. Subjects include theory and application of analog and digital meters, oscilloscopes, frequency generation, frequency measurements, and special measuring instruments.

**Prerequisites:** None  
**And one of the following:** None

## 44516 Radiation Hazard Theory and Measurement

Training Manager: AMA-450 Course Length: 40 hour(s)

This course provides training for technicians and engineers on radiation measurement procedures. The course is 100% correspondence study. Subjects include electromagnetic radiation characteristics; radiation theory, instrumentation, agency policy and standards; units of measure; ionizing radiation measurements and procedures; hydrogen thyratron operating hazards; pulsed non-ionizing measurements, calculations and procedures; continuous wave (CW) non-ionizing measurement, calculations, and procedures; routine and non-routine measurements; measurement of a radar; and high frequency CW source measurements.

**Prerequisites:** None  
**And one of the following:** None

## 44714 Substitute for Knowledge of ESS Concepts/PVE-1000

Training Manager: AMA-430 Course Length: 0 hour(s)

This prerequisite validation examination provides training for technicians on basic knowledge of environmental system support (ESS) concepts. Subjects include DC circuits, batteries, switches, controls, AC circuits, transformers, motors, generators, and rectifiers.

**Prerequisites:** None  
**And one of the following:** None

## 44715 ILS Basic Theory

Training Manager: AMA-420 Course Length: 65 hour(s)

This course material prepares technicians for for Course 40283, Theory of ILS. Subjects include Instrument Landing System (ILS) principles, components of a complete ILS, waveforms peculiar to the ILS, and amplitude modulation.

**Prerequisites:** None  
**And one of the following:** None

## 44716 Study Material for ILS Markers/PVE-1203

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material prepares technicians for prerequisite validation examination (PVE)-1203, which is the prerequisite to all resident Instrument Landing System (ILS) marker courses. Subjects include the ILS marker station, marker antenna arrays, and measurements and adjustments.

**Prerequisites: None**  
**And one of the following: None**

**44717 Study Material for ILS Localizers/PVE-1204/1205**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material prepares technicians for prerequisite validation examination (PVE)-1204/1205. The material is presented in two sections. Subjects include localizer radiation patterns, types of localizer antennas, radiated modulation components, Manual FV108, and antennas and radiation patterns.

**Prerequisites: None**  
**And one of the following: None**

**44718 Study Material for ILS Glide Slope/PVE-1206/1207**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material prepares technicians for prerequisite validation examination (PVE)-1206/1207. The material is presented in two sections. Subjects include Instrument Landing System (ILS) glideslope radiation patterns and radiated modulation components.

**Prerequisites: None**  
**And one of the following: None**

**44719 Study Material for Mark 1D Antenna System/PVE-1301**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material prepares technicians for prerequisite validation examination (PVE)-1301. Subjects include introduction to the LOG periodic antenna and theoretical calculations associated with it.

**Prerequisites: None**  
**And one of the following: None**

**44720 Null Reference Glideslope Antenna System, PVE-1302**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material prepares technicians for prerequisite validation examination (PVE)-1302. Subjects include introduction to capture effect radiation patterns, amplitude and phase control units, transmitting antennas, and monitoring.

**Prerequisites: None**  
**And one of the following: None**

**44721 Study Material for Capture Effect Glideslope/PVE-1303**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material prepares technicians for prerequisite validation examination (PVE)-1303. Subjects include an introduction to capture effect radiation patterns, amplitude and phase control unit, transmitting antennas, and monitoring.

**Prerequisites: None**  
**And one of the following: None**

**44722 Sideband Reference Glideslope**

Training Manager: AMA-420 Course Length: 35 hour(s)

This field study material provides training on the sideband reference glideslope. Subjects include an introduction to the sideband reference amplitude and phase control unit, transmitting antennas, and monitoring.

**Prerequisites: None**  
**And one of the following: None**

**44723 Study Material for Localizer With APC-TWA/PVE-1305**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material is an introduction to the Localizer Traveling Wave Antenna System, FA-9323 RF network, recombining and monitoring circuitry, and some theoretical calculations for the array. It prepares the student for the prerequisite validation examination (PVE)-1305.

**Prerequisites: None**  
**And one of the following: None**

**44724 Study Material for Localizer With V-Ring/PVE-1306**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material is an introduction to the V-Ring Antenna System. It discusses power distribution, monitoring, and calculations peculiar to the V-Ring Antenna System. It prepares the student for the prerequisite validation examination (PVE)-1306.

**Prerequisites: None**  
**And one of the following: None**

**44725 Study Material for Localizer With ALF 8-Loop/PVE-1307**

Training Manager: AMA-420 Course Length: 0 hour(s)

This field study material is an introduction to the Alford 8-loop Antenna System, the amplitude and phase control unit, radiation patterns, proximity effects of the 8-loop array, and system adjustments. It prepares the student for the prerequisite validation examination (PVE)-1307.

**Prerequisites:** None  
**And one of the following:** None

**45011 Radiation Hazard**

Training Manager: AMA-405 Course Length: 32 hour(s)

The purpose of this training is to cover the requirements of FAA policy for radiation measurements and reporting as outlined in Order 3910.3A. The Office of Spectrum Policy and Management (ASR) and the regional Frequency Management Officers measure radiation levels for existing and newly commissioned radar. This course provides information about various types of radar used in the National Airspace System and equipment required to perform radiation hazard measurements.

**Prerequisites:** None  
**And one of the following:** None

**45012 ATIS/HIWAAS Digital Recorder System**

Training Manager: AMA-480 Course Length: 28 hour(s)

This course provides training for technicians on Airport Terminal Information Services (ATIS)/Hazardous In-flight Weather Advisory Service (HIWAAS) Digital Recorder System, Type FA-10146. The course is 100% field-conducted training. Subjects include analysis of the channel digital recorders (CDR), monitor and alarm panel (MAP), and remote control unit to the input/output level. Performance exercises are included to develop skills in adjustment procedures, preventive maintenance procedures, and trouble analysis.

**Prerequisites:** 88440  
**And one of the following:** None

**45014 AN/GRT-21/22 and AN/GRR-23/24**

Training Manager: AMA-410 Course Length: 50 hour(s)

This course provides training for technicians on VHF and UHF Communications Equipment, Models AN/GRR-23/24 and AN/GRT-21/22. The course is 100% field-conducted training. Subjects include theory of operation, alignment, and performance checks.

**Prerequisites:** 47504  
**And one of the following:** None

**45015 Remote Readout Hygrothermometer, Model 94F/50**

Training Manager: AMA-410 Course Length: 80 hour(s)

This course provides training for technicians on the remote readout Hygrothermometer, Type FA-9638. The course is 100% field-conducted lab. Subjects include functional operation, voltage measurements, alignment, and calibration.

**Prerequisites:** 44416  
**And one of the following:** None

**45016 Runway Visual Range (RVR) Eqmt Type FA-7861, Fld-Cdt Lab**

Training Manager: AMA-420 Course Length: 16 hour(s)

This course provides training for technicians on the RVR (SSR), Type FA-7861. The course is 100% field-conducted lab. Subject areas include transmissometer, signal data converter, and remote data distribution.

**Prerequisites:** 40213  
**And one of the following:** None

**45017 Direction Finder 5530 and Remoting Equipment 5571/5572**

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on Direction Finder 5530 and Remoting Equipment 5571/5572. The course is 100% field-conducted lab. Subjects include evaluation of the system operation, performing routine maintenance, and troubleshooting. For facilities requiring remoting cables.

**Prerequisites:** None  
**And one of the following:** None

**45018 Radio Frequency Interference (RFI) Resolution**

Training Manager: AMA-410 Course Length: 48 hour(s)

This course provides training for technicians on identifying, analyzing, locating, and resolving radio frequency interference (RFI) that could affect the safe operation of communication, navigation, and surveillance facilities in the NAS. The course is 29 hours field lecture and 19 hours field laboratory. Lectures include types of RFI including brute force, intermodulation, image, broadcast TV and radio, and RFI locating techniques. Laboratory includes direction-finding exercises (held outdoors at the Technical Center and surrounding areas) and spectrum analyzer and intermodulation demonstrations. Candidates selected from nominees submitted to and travel/per diem funded by ASR-1.

**Prerequisites:** None  
**And one of the following:** None

## 45019 Teledyne Runway Visual Range (RVR)

Training Manager: AMA-420 Course Length: 32 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center personnel on the runway visual range type 10268/1-6. The course is 12 hours correspondence study and 20 hours on-the-job training (OJT). Subjects include system overview, visibility sensor (VS), ambient light sensor (ALS), current sensors (CS), sensor interface electronics (SIE), data processing unit (DPU), controller display (CD) operations, standards and tolerances, and periodic maintenance procedures. Course requires station copy of TI 6560.17 for reference and access to the Teledyne RVR System for the OJT portion of the course.

**Prerequisites:** None  
**And one of the following:** None

## 45020 Teledyne RVR Field Conducted Lab

Training Manager: AMA-420 Course Length: 24 hour(s)

This course provides training for airway facilities personnel on the Runway Visual Range, Type 10268/1-6. This course is 24 hours field conducted lab. Subjects include a system overview, visibility sensor (VS), ambient light sensor (ALS), current sensors (CS), sensor interface electronics (SIE), data processing unit (DPU), controller display (CD) operations, standards, and tolerances, and periodic maintenance procedures. Course requires TI 6560.17, 6560.31, and 6990.2 for reference and access to the Teledyne RVR System.

**Prerequisites:** 44222  
**And one of the following:** None

## 45021 NEXCOM Multimode Digital Radio (MDR) (Analog) OJT

Training Manager: AMA-410 Course Length: 78 hour(s)

The NEXCOM Multimode Digital Radio (analog) OJT course is currently estimated to be 78 hours in duration, 45 hours of study time and 33 hours of instructional time. The course will be used to acquire proficiency in overall equipment maintenance, operation, adjustment and evaluation, and general issues, safety, and coordination.

**Prerequisites:** 47020  
**And one of the following:** None

## 45022 VHF and UHF Transmitters and Receivers OJT

Training Manager: AMA-410 Course Length: 70 hour(s)

This course provides proficiency training on the VHF and UHF communication equipment and facility wiring. Subjects include VHF/UHF receiver and transmitter operations and adjustments, coordination of maintenance activities, certification requirements, radio control equipment (RCE) interfaces, antennas and transmission line measurement procedures and tracing the voice and signal paths using facility wiring drawings. The total course length is 70 hours. This includes 24 hours of student time and 46 hours instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 47504  
**And one of the following:** None

## 45023 Digital Voice Recording System (DVRS) OJT

Training Manager: AMA-410 Course Length: 34 hour(s)

This course provides proficiency training for AF technicians and engineers on the Digital Voice Recording System (DVRS). The course is 24 hours of OJT. Subjects include system configuration, system operation, and technical procedures in addition to all required procedures on the DVRS performance exam.

**Prerequisites:** None  
**And one of the following:** 47014, 48241

## 45024 Small Tower Voice Switch (STVS) OJT

Training Manager: AMA-410 Course Length: 33 hour(s)

This course provides proficiency training for engineers and technicians on the Small Tower Voice Switch (STVS). The course is 33 hours of OJT, which includes 19 hours student and 14 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 47507  
**And one of the following:** None

## 45025 Altimeter Setting Indicator (ASI) OJT

Training Manager: AMA-410 Course Length: 10 hour(s)

This course provides proficiency training for engineers and AF technicians on the ASI. The course is 10 hours of OJT, this includes 6 hours of student plus 4 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 44015  
**And one of the following:** None

## 45026 Digital Voice Recorder, Type II (DVR2) OJT

Training Manager: AMA-410 Course Length: 54 hour(s)

This course provides proficiency training for engineers and AF technicians on the Digital Voice Recorder, Type II (DVR2). The course is 53 hours of OJT, this includes 30 hours of student plus 24 hours of instructor time. Subjects include recorder systems checks and reproducer systems checks, to include a description of the power feeds and power distribution throughout the equipment.

**Prerequisites:** 40045  
**And one of the following:** None

## 45027 Terminal Voice Switch (TVS), RDVS 3080C, E, F and H OJT

Training Manager: AMA-410 Course Length: 35 hour(s)

This course provides proficiency training for engineers and technicians on the Terminal Voice Switch RDVS 3080C, E, F and H. The course is 35 hours of OJT that includes 20 hours of student plus 15 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40029, 40042

## 45029 VSCS Hardware Maintenance OJT

Training Manager: AMA-410 Course Length: 70 hour(s)

This course provides proficiency training for engineers and AF technicians in VSCS hardware maintenance including the VSCS Control System Upgrade (VSCU). The course is 70 hours of OJT, this includes 26 hours of student plus 44 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, prevention maintenance, and troubleshooting.

**Prerequisites:** 40051, 47506  
**And one of the following:** None

## 45030 CM-300 Series UHF Radio System OJT

Training Manager: AMA-410 Course Length: 38 hour(s)

This course provides proficiency training for engineers and AF technicians in CM-300 series UHF radio system hardware maintenance. The course is 38 hours of OJT, this includes 22 hours of student plus 16 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 47023, 47504, 47506  
**And one of the following:** None

## 45031 Enhanced Terminal Voice Switch (ETVS) OJT

Training Manager: AMA-410 Course Length: 35 hour(s)

This course provides proficiency training for engineers and AF technicians in ETVS hardware maintenance. The course is 35 hours OJT, this includes 19 hours of student plus 16 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 40041  
**And one of the following:** None

## 45032 Doppler Direction Finder Equipment (DF/DFI) FA-9964 OJT

Training Manager: AMA-410 Course Length: 20 hour(s)

This course provides proficiency training for engineers and AF technicians on the Doppler Direction Finder (DF/DFI) Model FA-9964. The course includes 7 hours of study time and 13 hours of instructional time. Subjects include equipment maintenance, operation, adjustments, evaluation, flight inspection, and all required procedures for the Doppler Direction Finder Equipment (DF/DFI) examination.

**Prerequisites:** 40257  
**And one of the following:** None

## 45103 Lightning and Transient Protection Theory

Training Manager: ANS-600 Course Length: 16 hour(s)

This course provides training for technicians, engineers, and NAS managers on the principles used in designing and installing lightning protection, transient protection, surge protection, and grounding systems for FAA facilities. The course is 100% field-conducted lecture. Subjects include installation and maintenance of appropriate protection systems and resolving problems with existing systems.

**Prerequisites:** None  
**And one of the following:** None

## 45108 Static Switch Removal and Replacement

Training Manager: AMA-430 Course Length: 4 hour(s)

This course provides training for technicians, engineers, and developmental technicians on the STS-SP-208Y-150/150, Series STS-HD, Static Transfer Switch. The course is 10% videotape and 90% field-conducted lab. The videotape demonstrates removal and replacement of a PSCS Series STS-HD, static switch in an ASCO-940 enclosure and removal and replacement of cooling/exhaust fans and filters. Lab subjects include removal and replacement of fans and filters, demonstration of removal/replacement of static switch, and demonstration of static switch operation and diagnostic functions. Required tools include the designated PSCS static switch lifting device, torque wrench, and VCR.

**Prerequisites:** None  
**And one of the following:** None

## 45110 ARTCC Critical and Essential Power System (ACEPS)

Training Manager: AMA-430 Course Length: 96 hour(s)

This course provides training for airway facilities technicians, engineers, specialists, and FAA Technical Center personnel on the ARTCC Critical and Essential Power System (ACEPS). This course is 96 hours field-conducted laboratory. Subjects include fundamental knowledge and location of ACEPS equipment and components.

**Prerequisites:** 47112  
**And one of the following:** None

## 45112 Exide UPS System OJT

Training Manager: AMA-430 Course Length: 58 hour(s)

This course provides proficiency training for AF technicians on the Exide PCS System. The course is 58 hours formal OJT. Subjects include equipment maintenance performance check, operation and adjustment, and description of the power feed, and power distribution throughout the equipment.

**Prerequisites:** 40149  
**And one of the following:** None

## 45113 ACEPS OJT

Training Manager: AMA-430 Course Length: 80 hour(s)

This course provides proficiency training for AF technicians on the ACEPS equipment. The course is 80 hours OJT. Subjects include equipment maintenance performance check, operation and adjustment, description of the power feed and power distribution throughout the equipment.

**Prerequisites:** 40160, 40161, 45110, 47112  
**And one of the following:** None

## 45114 Critical Redundant Power Distribution System (CRPDS)

Training Manager: AMA-430 Course Length: 232 hour(s)

This course provides training for technicians on how to troubleshoot, maintain, and repair the equipment comprising the Critical Redundant Power Distribution System (CRPDS). Subjects include CRPDS system overview, Kohler engine generators and controls, DEC340 controller, Square D switchgear, Exide BPIII UPS, static automatic transfer switch (SATS), power distribution unit (PDU), Power Monitor and Control System (PMCS) and auxiliary equipment. This training will be

approximately 116 hours field lecture and 116 hours field laboratory.

**Prerequisites:** 88440, 88441  
**And one of the following:** 44111, 44117

## 45115 PAPI FA-10265, FA-10620, and FA-10147 OJT

Training Manager: AMA-430 Course Length: 37 hour(s)

This course provides proficiency training for AF technicians on the precision approach path indicator (PAPI). The course includes 15 hours of study time and 22 hours of instructional time. Subjects include equipment maintenance, operation, adjustments, evaluation, flight inspection, facility drawings, and all required procedures for the PAPI performance examination.

**Prerequisites:** None  
**And one of the following:** 44115, 47107

## 45116 Approach Lighting System W/Flashers (ALSF-2) NBP OJT

Training Manager: AMA-430 Course Length: 85 hour(s)

This course provides proficiency training for AF technicians on the ALSF-2 (NBP) equipment. The course is 85 hours OJT. Subjects include equipment maintenance performance check, operation and adjustment, description of the power feed and power distribution throughout the equipment.

**Prerequisites:** 40148  
**And one of the following:** None

## 45117 Approach Lighting System w/Flashers (ALSF-2) Godfrey OJT

Training Manager: AMA-430 Course Length: 78 hour(s)

This course provides proficiency training for AF technicians on the ALSF-2 (Godfrey) equipment. The course is 78 hours OJT. Subjects include equipment maintenance performance check, operation and adjustment, description of the power feed and power distribution throughout the equipment.

**Prerequisites:** 40135  
**And one of the following:** None

## 45118 Approach Lighting System w/Flashers (ALSF-2) Airflo OJT

Training Manager: AMA-430 Course Length: 78 hour(s)

This course provides proficiency training for AF technicians on the ALSF-2 (Airflo) equipment. The course is 78 hours OJT. Subjects include equipment maintenance performance check, operation and

adjustment, description of the power feed and power distribution throughout the equipment.

**Prerequisites:** 40136  
**And one of the following:** None

## 45205 Model 1118 DME Enhanced Remote Maintenance Monitoring

Training Manager: AMA-420 Course Length: 20 hour(s)

This course provides bridge training for technicians and engineers on the ASII Model 1118 Distance Measuring Equipment (DME) with enhanced remote maintenance monitoring. The course is 12 hours correspondence study and 8 hours field laboratory. Correspondence study subjects include circuit card overview; technical description; ERMM computer and interface; installation and checkout; data screens; tests; power supply alert limits; and data collection. Field laboratory subjects include adjustments and maintenance procedures. Students who have not taken 40278 should enroll in 43800.

**Prerequisites:** 40278  
**And one of the following:** None

## 45206 ILS Maintenance Requirements and Procedures

Training Manager: AMA-420 Course Length: 27 hour(s)

This course provides training for personnel on procedures for maintaining and certifying Instrument Landing System (ILS) facilities. The course is 100% field lecture. Subjects include the user's perspective of the ILS, localizer and glideslope requirements and arrays, ILS recordkeeping and maintenance issues, certification concepts and policy, non-directional beacon flight inspection issues, navigation-related test equipment, flight inspection techniques, NASE program, litigation and tort law as related to AF experiences.

**Prerequisites:** None  
**And one of the following:** None

## 45207 Mark 20 ILS OJT

Training Manager: AMA-420 Course Length: 120 hour(s)

This course provides proficiency training for AF technicians on the Mark 20 ILS. The course is 120 hours of OJT. Subjects include maintenance and flight inspection requirements and procedures, in addition to all required procedures on the Mark 20 ILS performance exam.

**Prerequisites:** 40283  
**And one of the following:** None

## 45208 LLWAS Relocation and Sustainment (LLWAS-RS) OJT

Training Manager: AMA-420 Course Length: 16 hour(s)

This course provides proficiency training for AF technicians on the Low Level Windshear Alert System-Relocation and Sustainment (LLWAS-RS). The course is 16 hours of OJT which includes 8 hours of student study time plus 8 hours of instructor time. Subjects include the radio MODEM procedures, remote station procedures, master station procedures, and removal and replacement procedures.

**Prerequisites:** 40291  
**And one of the following:** None

## 45209 VHF Omnidirectional Range Transmitter (VOT), Fld Cdt Lab

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for technicians and engineers on Very High Frequency Omnidirectional Range (VOR) Systems (Marconi VOT Type FA-10235). The course is 100% field-conducted lab. Subjects include operations and alignment.

**Prerequisites:** None  
**And one of the following:** 40276, 40284, 47701

## 45210 Mk-1F ILS OJT

Training Manager: AMA-420 Course Length: 210 hour(s)

This course provides proficiency training for AF technicians on the mk-1F Instrument Landing System (ILS). The course is 210 hours of on-the-job training (OJT) representing 108 hours of study time and 102 hours of instructional time. Subjects include system/equipment operation and performance, troubleshooting/diagnostic tools/test equipment, equipment maintenance and restoration activities, flight inspection, and facility drawings.

**Prerequisites:** 47716  
**And one of the following:** 40233, 40283

## 45211 Second Generation VOR/DME Maintenance OJT

Training Manager: AMA-420 Course Length: 109 hour(s)

This course provides proficiency training for engineers and AF technicians on the second generation VOR/DME maintenance. The course is 20 hours of OJT, this includes 66 hours of student plus 43 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 44020, 47701  
**And one of the following:** 40276, 40284, 44215

**45212 Non-Directional Beacon (NDB) System OJT**

Training Manager: AMA-420 Course Length: 54 hour(s)

This course provides proficiency training for engineers and AF technicians Non-Directional Beacon (NDB) System. The course is 54 hours of OJT, this includes 31 hours of student plus 23 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting. The prerequisite for the FA 9589 NDB is course 44218. All other NDB's the prerequisite is course 47504.

**Prerequisites:** None  
**And one of the following:** 44218, 47504

**45213 VHF Omni-Range Test Facility (VOT) OJT**

Training Manager: AMA-420 Course Length: 35 hour(s)

This course provides proficiency training for engineers and AF technicians on VHF Omni-range Test (VOT) facility. The course is 35 hours of OJT, this includes 17 hours of student plus 18 hours of instructor time. Subjects include include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 45209  
**And one of the following:** 40276, 40284, 47701

**45215 Third Generation VOR/DME OJT**

Training Manager: AMA-420 Course Length: 65 hour(s)

This course provides proficiency training for AF technicians on the third generation VOR/DME. The course includes 38 hours of study time and 27 hours of instructional time. Subjects include equipment maintenance, operation, adjustments, evaluation, restoration, flight inspection, facility drawings, and all required procedures for the third generation VOR/DME performance examination.

**Prerequisites:** 40286, 40284  
**And one of the following:** None

**45217 2nd Gen VORTAC, VOR, VOR/DME and DVOR Type FA-9996 OJT**

Training Manager: AMA-420 Course Length: 114 hour(s)

This course provides proficiency training for engineers and AF technicians on the Second Generation VORTAC, VOR, VOR/DME and Doppler VOR (DVOR). The course is 114 hours of OJT, this includes 68 hours of student plus 46 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, troubleshooting and flight inspection. This course replaces course 45211.

**Prerequisites:** None  
**And one of the following:** 47701, 40261

**45218 Runway Visual Range (RVR) System Teledyne Type FA-10268 OJT**

Training Manager: AMA-420 Course Length: 29 hour(s)

This course provides proficiency training for engineers and AF technicians on the Teledyne Runway Visual Range (RVR) System type FA-10268. The course is 29 hours of OJT, this includes 17 hours of student plus 12 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance and troubleshooting.

**Prerequisites:** 44222, 45020  
**And one of the following:** None

**45219 Wide Area Augmentation System (WAAS) OJT**

Training Manager: AMA-420 Course Length: 30 hour(s)

This course provides theory training for airway facilities technicians and engineers on the WAAS System. This course is 30 hours. Subjects include an introduction to WAAS, the use of the Interactive Electronic Technical Manual (IETM), a description of WAAS components at all sites including interfaces and purpose of all line replacement units (LRU), and an emphasis on verification, performance, and corrective maintenance procedures for the WAAS System.

**Prerequisites:** 88440, 88441, 44221  
**And one of the following:** 40293, 40294, 40295, 40296

**45220 Distance Measuring Equipment (DME) ASII Model 1118 OJT**

Training Manager: AMA-420 Course Length: 39 hour(s)

This course provides proficiency training for engineers and technicians on the Distance Measuring Equipment Model ASII 1118. The course is 39 hours of OJT; this includes 24 hours of student plus 15 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, periodic maintenance, and troubleshooting.

**Prerequisites:** 44215  
**And one of the following:** None

**45221 Low Level Windshear Alert System Type FA10239 & FA10240 OJT**

Training Manager: AMA-420 Course Length: 37 hour(s)

This course provides proficiency training for engineers and AF technicians on the FA-10239 and FA-10240 Low Level Windshear Alert Systems (LLWAS). The course is 37 hours of OJT; this includes 21 hours of student plus 16 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 47711, 47713

## 45313 Remote Tower Alphanumeric Display System (RTADS) Hardware

Training Manager: AMA-460 Course Length: 120 hour(s)

This course provides training for technicians on the ARTS IIIA Remote Display Buffer Memory (RDBM). The course is 60 hours field lecture and 60 hours field laboratory with a supervised final. Lecture subjects include RDBM theory of operation and interface. Laboratory subjects include diagnostics, operation, and troubleshooting.

**Prerequisites:** 42027  
**And one of the following:** None

## 45314 Remote Tower Alphanumeric Display System (RTADS) Software

Training Manager: AMA-460 Course Length: 120 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center personnel on remote display buffer memory (RDBM) software. The course is 72 hours field lecture and 48 hours field laboratory. Lecture subjects include system data flow overview, flow diagram analysis of specific RDBM program tasks, interpretation of status and error message processing and printouts, programming techniques for the communications multiplex controller (CMC) and the RDBM, ultra review and interrupt handling, and programming the differences between multiplexed display buffer memory (MDBM), and the RDBM. Laboratory subjects include programming the RDBM via CMC. The laboratory is optional.

**Prerequisites:** None  
**And one of the following:** 41328, 42037

## 45328 Low Density Radio Communications Link (23GHz)

Training Manager: AMA-440 Course Length: 32 hour(s)

This course provides training for technicians and engineers on the Micronet 23 GHz Radio Model 4248 Low Density Radio Communications Link. The course is 100% field-conducted training. Subjects include Wescom 360-22 D4 digital carrier terminal; microwave networks Micronet 23 GHz digital radio; switchmode and Ferro power supplies; and annual maintenance, alignment, and operation.

**Prerequisites:** 44321  
**And one of the following:** None

## 45331 Airport Surveillance Radar-9 (ASR-9) OJT

Training Manager: AMA-450 Course Length: 167 hour(s)

This course provides proficiency training for AF technicians on the Airport Surveillance Radar-9 (ASR-9). The course is 167 hours OJT. Subjects include the ASR-9 System, Type FA10064, ASR-9 antenna tower, ASR-9 computer console, and other required procedures on the ASR-9 performance exam.

**Prerequisites:** None  
**And one of the following:** 40337, 40391

## 45332 Automated Radar Terminal System (ARTS) IIE OJT

Training Manager: AMA-460 Course Length: 133 hour(s)

This course provides proficiency training for airway facilities technicians on the Automated Radar Terminal System (ARTS) IIE. This course is 133 hours OJT. Subjects include acquisition processing cabinet, aural alarm control unit, decoding data acquisition system, code select box, remote control box, interfacility data set, Radar Alphanumeric Display System (RADS), display control processor, and keyboard.

**Prerequisites:** 42039  
**And one of the following:** None

## 45334 Terminal Doppler Weather Radar (TDWR) OJT

Training Manager: AMA-440 Course Length: 70 hour(s)

This course provides proficiency training for AF technicians on the Terminal Doppler Weather Radar (TDWR). The course is 70 hours of on-the-job training (OJT). Subjects include system/equipment operation/performance, MDT logon/logoff procedures, system diagnostics, Radar Product Generator, remote maintenance, power distribution and emergency power procedures, and periodic maintenance.

**Prerequisites:** 40313  
**And one of the following:** None

## 45335 ARSR-3 OJT

Training Manager: AMA-440 Course Length: 85 hour(s)

This course provides proficiency training for AF technicians on the Air Route Surveillance Radar (ARSR)-3. The course is 85 hours of on-the-job training (OJT). Subjects include equipment maintenance,

operation, adjustment, and evaluation.

**Prerequisites:** 40388  
**And one of the following:** None

## 45336 Mode-S OJT

Training Manager: AMA-450 Course Length: 137 hour(s)

This course provides proficiency training for AF technicians on the Mode Select Beacon System (Mode-S). The course is 137 hours of on-the-job training (OJT). Subjects include equipment performance check, operation, and adjustment.

**Prerequisites:** 40398  
**And one of the following:** None

## 45337 ASR-8 OJT

Training Manager: AMA-450 Course Length: 87 hour(s)

This course provides proficiency training for AF technicians on the Airport Surveillance Radar-8 (ASR-8). The course is 87 hours of on-the-job training. Subjects include equipment performance check, operation, and adjustment.

**Prerequisites:** 40333  
**And one of the following:** None

## 45340 Common Digitizer CD-2A/B/C/D OJT

Training Manager: AMA-440 Course Length: 28 hour(s)

This course provides proficiency training for AF technicians on the Common Digitizer Models CD-A/B/C/D. This course is 28 hours of on-the-job training (OJT). There will be approximately 15 hours of study time and approximately 13 hours of instructional time. Subjects include system/equipment operation and performance.

**Prerequisites:** 43549  
**And one of the following:** None

## 45341 ATCBI-6 OJT

Training Manager: AMA-450 Course Length: 30 hour(s)

This course provides proficiency training for airway facilities technicians on the ATCBI-6. This course is 30 hours of on-the-job training (OJT). Subjects include: technical documentation and general requirements; general operations; performance checks (transmitter, receiver, antenna, signal processor, control and monitor system, and the monopulse remote site monitor); troubleshooting and removal/replacement procedures; and appropriate test equipment.

**Prerequisites:** 42063, 44330  
**And one of the following:** None

## 45342 ARSR-4 OJT

Training Manager: AMA-440 Course Length: 135 hour(s)

This course provides proficiency training for AF technicians on the Air Route Surveillance Radar-4 (ARSR-4). The course includes 82 hours of study time and 53 hours of instructional time. Subjects include equipment maintenance, operation, adjustments, evaluation and all required procedures for the ARSR-4 performance examination.

**Prerequisites:** 40408  
**And one of the following:** None

## 45343 Direct Access Radar Channel (DARC) OJT

Training Manager: AMA-470 Course Length: 37 hour(s)

This course provides proficiency training for AF technicians on the Direct Access Radar Channel (DARC). The course is 37 hours of OJT which includes 20 hours of student study time plus 17 hours of instructor time. Subjects include system familiarization, IOT/LP PC operational maintenance procedures, magnetic tape unit, functional system checkout, and system operations.

**Prerequisites:** 43519  
**And one of the following:** None

## 45344 ARTS-III A OJT

Training Manager: AMA-460 Course Length: 199 hour(s)

This course provides proficiency training for AF technicians on the Automated Radar Terminal System, ARTS-III A. The course includes 81 hours of study time and 118 hours of instructional time. Subjects include equipment maintenance, operation, adjustments, evaluation and all required procedures for the ARTS-III A performance examination.

**Prerequisites:** 42027  
**And one of the following:** 42035, 42051

## 45345 Micro-EARTS Remote Display Maintenance

Training Manager: AMA-460 Course Length: 40 hour(s)

This course provides training on Micro-EARTS remote display maintenance for airway facilities technicians, engineers, and FAA Technical Center personnel. This course is 27 hours field lecture and 13 hours field lab. Lecture includes an introduction to the MEARTS, principles and modes of operation, hardware interfaces, inputs/outputs, system documentation, RCW hardware, display presentation, keyboard entries, RCS software structure and scripts, maintenance routines, certification, and removal and replacement. Lab

includes system introduction and familiarization, X-Window s/Solaris and script usage, RCW maintenance and certification routines, and RCW LRU removal, replacement and configuration.

**Prerequisites:** None  
**And one of the following:** None

## 45346 Full Service STARS ATSS Maintenance

Training Manager: AMA-490 Course Length: 56 hour(s)

This course provides training for qualified system specialists on the STARS Automation System used in terminal radar approach control facilities. The course is 88 hours field conducted lecture. Lecture subjects include an introduction to the system, system operation, Sony monitor, and system components.

**Prerequisites:** 88440, 88441  
**And one of the following:** 12751, 40423

## 45347 Full Service STARS ATSS Maintenance (Lab)

Training Manager: AMA-490 Course Length: 144 hour(s)

This course provides training for qualified system specialists on the STARS Automation System. This course is 152 hours of field-conducted laboratory and is to be taken following course 45346. Laboratory subjects include hands-on learning and detailed component and system troubleshooting.

**Prerequisites:** 45346  
**And one of the following:** None

## 45348 Air Traffic Control Beacon Interrogator-5 (ATCBI-5) OJT

Training Manager: AMA-440 Course Length: 56 hour(s)

This course provides proficiency training for engineers and AF technicians on the air traffic control beacon interrogator ATCBI-5. The course is 56 hours of OJT, this includes 34 hours of student plus 22 hours of instructor time. Subjects include transmitter alignment and performance, receiver alignment and performance, operation and alignment of control and transfer unit and remote control head, line driver unit and line compensator unit, digital defruiter alignment and performance, antenna performance checks, power/signal distribution, and emergency power procedures.

**Prerequisites:** 47706  
**And one of the following:** None

## 45350 TDWR System With RPG Upgrade OJT

Training Manager: AMA-440 Course Length: 70 hour(s)

This course provides proficiency training for AF technicians on the

Terminal Doppler Weather Radar (TDWR). The course is 70 hours of on-the-job training (OJT). Subjects include system/equipment operation/performance, MDT logon/logoff procedures, system diagnostics, radar product generator, remote maintenance, power distribution and emergency power procedures, and periodic maintenance.

**Prerequisites:** 40313  
**And one of the following:** None

## 45351 Weather System Processor (WSP) OJT

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides proficiency training for engineers and AF technicians on the Weather System Processor (WSP). The course is 24 hours of OJT, which includes 13 hours of student study time plus 11 hours of instruction time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 40611  
**And one of the following:** None

## 45352 DBRITE OJT

Training Manager: AMA-460 Course Length: 33 hour(s)

This course provides proficiency training for technicians and engineers on the DBRITE System. The course is 33 hours, this includes 18 hours of student plus 15 hours of instruction time. Subjects include safety, system operation, test equipment set up, system interface, facility coordination, and periodic maintenance.

**Prerequisites:** 40373  
**And one of the following:** None

## 45356 Radio Communications Link (RCL) System OJT

Training Manager: AMA-440 Course Length: 50 hour(s)

This course provides proficiency training on the RCL System. This course is 50 hours of on-the-job training (OJT) representing 30 hours of study time and 20 hours of instructional time. Subjects include equipment maintenance, operation, adjustment, and evaluation on power plant, microwave radio system, multiplexing system, channel bank procedures, microwave modem, and ACORN System.

**Prerequisites:** 40340  
**And one of the following:** None

## 45357 Asde-3 Collocated With AMASS OJT

Training Manager: AMA-440 Course Length: 120 hour(s)

This course provides proficiency training for engineers and AF technicians on the Airport Surface Detection Equipment (ASDE)-3 with Airport Movement Area Safety System (AMASS) and Terminal ARTS Interface Unit (TAIU). There are 120 hours OJT and includes 50 hours student plus 70 hours instructor time. Subjects include ASDE-3 System status, transmitter/receiver and display subsystem alignment and performance, RMIC and antenna system checks, as well as, AMASS/TAIU System status, system operation, performance checks, and power/signal distribution.

**Prerequisites:** 40609  
**And one of the following:** None

## 45358 Airport Surface Detection Equipment (ASDE) Model X OJT

Training Manager: AMA-440 Course Length: 43 hour(s)

This course provides proficiency training for engineers and AF technicians on the Airport Surface Detection Equipment (ASDE) Model X. The course is 43 hours of OJT and includes 16 hours of student plus 27 hours of instructor time. Subjects include ASDE-X System health, troubleshooting, software verification, primary detection (SMR) and secondary detection (MLAT) maintenance, SMR fixed target and MLAT fixed target verification and display subsystem performance.

**Prerequisites:** 48356  
**And one of the following:** None

## 45359 Micro-EARTS NEXIS Hardware/Software Delta

Training Manager: AMA-460 Course Length: 24 hour(s)

This course provides on-site training for techs, engineers, SPSS, and AOS personnel on the MEARTS NEXIS hardware equipment and software function. The course is 12 hours lecture and 12 hours laboratory. Lecture includes MEARTS DAS and NEXIS overviews including system interface cabling; system theory of operation and functional capabilities; NEXIS OP system and OP software; installation and configuration of System hardware and software; NEXIS and APUP initialization and shutdown; creating and editing .ini files; use of operational, status, and configuration graphical user interfaces (GUI) to view status, products, and log data; use of support and configuration tools; perform radar/client disconnect and troubleshooting.

**Prerequisites:** 40607  
**And one of the following:** None

## 45360 Airport Surveillance Radar (ASR)-11 OJT

Training Manager: AMA-450 Course Length: 120 hour(s)

This course provides proficiency training for AF technicians on Airport Surveillance Radar (ASR)-11. The course is 120 hours of OJT which includes 50 hours of study time and 70 hours of instructional time.

Subjects include safety and system operations, test equipment setup, system interface, facility coordination, periodic maintenance, and all required procedures for the ASR-11 examination.

**Prerequisites:** 42069  
**And one of the following:** None

## 45411 Weather Message Switching Center Replacement (WMSCR)

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides training for technicians on the operational software program for the WMSCR System. The course consists of 12 hours field lecture and 12 hours field laboratory. Lecture and laboratory subjects include writing, debugging and executing programs, updating and modifying adaptation parameters, and executing maintenance and diagnostic programs.

**Prerequisites:** 88440, 44415  
**And one of the following:** None

## 45412 Weather Message Switching Center Replacement(WMSCR) Hardware

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides training for technicians on the WMSCR System. The course consists of 20 hours field lecture and 20 hours field laboratory. Lecture subjects include system theory of operation, fault diagnosis and isolation, and system performance analysis. Laboratory subjects include system analysis, fault diagnosis, troubleshooting procedures, and routine checks and adjustments.

**Prerequisites:** 88440  
**And one of the following:** None

## 45413 WMSCR for Operators

Training Manager: AMA-480 Course Length: 120 hour(s)

This course provides training for network operations personnel assigned to monitor and control the network for the WMSCR System. The course is 60 hours field lecture and 60 hours field laboratory. Subjects include network interconnections between WMSCR, NADIN 1 MSN, NADIN II PSN (packet switching network), AWP (aviation weather processor), and end-user equipment; system menus and network control functions; network monitoring tools; system troubleshooting (network control, not physical equipment); system control (shutdown/startup, application loading, database structures); and weather data collection, breakdown, storage, assembly, and distribution.

**Prerequisites:** None  
**And one of the following:** None

## 45415 Simplified Automated Logging (SAL) Field-Conducted Lab

Training Manager: AMA-480 Course Length: 36 hour(s)

This course provides training for technicians, engineers, system performance specialists, NAS managers, and air traffic control specialists on SAL, used with the Tandem Himalaya RISC processor and maintenance diagnostic terminal (MDT). SAL is a Windows-based automated logging tool for recording and reviewing maintenance activities, which uses data from the Maintenance Management Software (MMS) Databases stored on the Maintenance Processing System (MPS). The course is 100% field-conducted lab. Subjects include introduction to SAL, SAL basics, recording SAL entries, using SAL entry tools and reviewing SAL entries and tools for advanced users.

**Prerequisites:** None  
**And one of the following:** None

## 45419 FDIO 3 PC-RCU Maintenance, Field Conducted Lab

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides training for technicians on the FDIO 3 PC-RCU equipment. The course is 100% field-conducted lab. Subjects include operation, configuration, performance check, and fault isolation.

**Prerequisites:** None  
**And one of the following:** 44013, 44020

## 45420 NADIN PSN Network Control Center (NCC) Operator, FldCdt Lab

Training Manager: AMA-480 Course Length: 48 hour(s)

This course provides training for technicians and computer operators on the NADIN Packet Switch Network. The course is 100% field-conducted lab. Subjects include simulated operations, control, and configuration and reconfiguration of network components.

**Prerequisites:** 43027  
**And one of the following:** None

## 45421 FDIO ATCT Hardware Maintenance Field-Conducted Lab

Training Manager: AMA-480 Course Length: 32 hour(s)

This course provides training for technicians on FDIO ATCT equipment manufactured by Wespercorp. The course is 100% field-conducted lab. Subjects include basic concepts, configuration, block diagram level data flow, diagnostics, and troubleshooting. A 386 personal computer with Windows 3.1 or higher is required to take this course.

**Prerequisites:** None  
**And one of the following:** None

## 45425 Aviation Weather Processor (AWP)

Training Manager: AMA-480 Course Length: 80 hour(s)

This course provides training for system performance specialists on the Aviation Weather Processor System. The course is 40 hours field lecture and 40 hours field lab. Lecture subjects include procedures to operate and maintain the AWP system in support of the Flight Service Automation System and its Model-1 full capacity systems. Laboratory subjects include operation, maintenance, performing software loads, and starting/stopping the AWP system.

**Prerequisites:** None  
**And one of the following:** None

## 45426 DSR Computer Operator

Training Manager: AMA-470 Course Length: 32 hour(s)

This course provides training for computer operators on the Display System Replacement (DSR). The course is 16 hours correspondence study and 16 hours field-conducted lab. Correspondence study subjects include system overview, tape management, RISC-6000 processor startup and operation, tape drives, printers, terminals, and flight strip printer control unit. OJT subjects include hands-on activities with a Lockheed Martin site support team at the ARTCC. A graded exam ends the course.

**Prerequisites:** None  
**And one of the following:** None

## 45429 FDIO for ARTCC's Field-Conducted Lab

Training Manager: AMA-480 Course Length: 20 hour(s)

This course provides training for technicians and engineers on the Flight Data Input/Output (FDIO) for Air Route Traffic Control Centers (ARTCC's). The course is 100% field-conducted lab. Subjects include system overview, CCU, power distribution, power up, front panel operation, GPI/GPO, MBCC assembly, LAN assembly, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** None

## 45432 Display System Replacement (DSR) OJT

Training Manager: AMA-470 Course Length: 192 hour(s)

This course provides proficiency training for AF technicians on the Display System Replacement (DSR). The course is 192 hours OJT. Subjects include the console test bench (CTB), printer control unit (PCU), DSR support equipment, DSR rack mounted support

processors, DSR control room hardware, DSR local communications network (LCN), DSR LCN rack-mounted processors, DSR backup communication network (bcn), and DSR BCN rack-mounted processors in addition to all required procedures on the DSR performance exam.

**Prerequisites:** None  
**And one of the following:** 40441, 43556, 48244

## 45433 Aviation Weather Processor (AWP) Field Conducted Lab

Training Manager: AMA-480 Course Length: 57 hour(s)

This course provides proficiency training for AF technicians on the Aviation Weather Processor (AWP). The course is 57 hours of field conducted lab. Subjects include AWP System familiarization, AWP weather edits, and AWP System control.

**Prerequisites:** None  
**And one of the following:** None

## 45435 Stand Alone Weather Sensors (SAWS) System OJT

Training Manager: AMA-480 Course Length: 22 hour(s)

This course provides proficiency training for AF technicians on the Stand Alone Weather Sensors (SAWS) System. The course is 22 hours of OJT. Subjects include system configuration, system operation, technical procedures, system malfunctions, and troubleshooting, in addition to all required procedures on the SAWS performance exam.

**Prerequisites:** 40428  
**And one of the following:** None

## 45436 Integrated Terminal Weather System (ITWS) OJT

Training Manager: AMA-480 Course Length: 16 hour(s)

This course provides proficiency training for AF technicians in the Integrated Terminal Weather System (ITWS). The course is 16 hours OJT which includes 8 hours of student study time and 8 hours of instructor time. Subjects include the product generator (PG), situation display (SD), and the test tool (TT).

**Prerequisites:** 40621  
**And one of the following:** None

## 45438 CCCH System, FAA HOCSR-Only OJT

Training Manager: AMA-470 Course Length: 16 hour(s)

This course provides on-the-job training (OJT) for technicians, NAS/NOM personnel, systems performance specialists, and developmental technicians on the Central Computer Complex HOST (CCCH) System, FAA HOST and Oceanic Computer System Replacement (HOCSR) Phase 3 - only. This training will prepare the student to operate HOCSR Phase 3 equipment, to run server diagnostics, to isolate, checkout, reintroduce, configure/reconfigure the equipment, and system administration. This OJT course is 16 hours which includes 8 hours of study time and 8 hours of instructional time.

**Prerequisites:** 40420, 40426, 40434, 40435, 40436  
**And one of the following:** None

## 45440 ATIS/TWEB/HIWA/AAIU (FA-10012 and FA-10146) OJT

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides proficiency training for engineers and technicians on ATIS/TWEB/HIWA/AAIU (FA-10012 and FA-10146). The course is 24 hours of OJT, this includes 12 hours of student plus 12 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 44024, 47504

## 45441 Automated Weather Observing System (AWOS) OJT

Training Manager: AMA-480 Course Length: 35 hour(s)

This course provides proficiency training for engineers and AF technicians on the Automated Weather Observing System (AWOS) facility. The course is 35 hours of OJT, this includes 17 hours of student plus 18 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40431, 88439

## 45442 Operational & Supportability Implementation Sys (OASIS) OJT

Training Manager: AMA-480 Course Length: 49 hour(s)

This course provides proficiency training for engineers and AF technicians on the AFSS OASIS facility. The course is 49 hours, which includes 29 hours of student plus 20 hours of instructor time. Subjects include OASIS FDS, VW, LCN, AFSSWS and OAWS interface, preventive maintenance, and troubleshooting.

**Prerequisites:** 48274  
**And one of the following:** None

## 45445 Automated Weather Sensor System (AWSS) OJT

Training Manager: AMA-480 Course Length: 18 hour(s)

This course provides proficiency training for engineers and AF technicians in AWSS hardware maintenance. The course is 18 hours of OJT, this includes 6 hours of student plus 12 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, and troubleshooting.

**Prerequisites:** 40429  
**And one of the following:** None

## 45446 HOST Oceanic Computer System Replacement (HOCSR) OJT

Training Manager: AMA-470 Course Length: 125 hour(s)

This course provides proficiency training for specialist on the HOCSR. The course includes 84 hours of study time and 41 hours of instructional time. Subjects include equipment maintenance, operation, evaluation, facility drawings, and all required procedures for the HOCSR performance examination.

**Prerequisites:** 40420, 40426  
**And one of the following:** None

## 45447 User Request Evaluation Tool (URET) OJT

Training Manager: AMA-470 Course Length: 66 hour(s)

This course provides proficiency training for engineers and technicians on the user request evaluation tool (URET). This course is 66 hours of OJT; this includes 34 hours of student plus 32 hours of instructor time. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, periodic maintenance, and troubleshooting.

**Prerequisites:** 40445  
**And one of the following:** None

## 45510 Orientation and Safety

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for technicians on orientation and safety. The course is 100% field-conducted training. Subjects include fire and personnel safety, emergency first aid, basic maintenance procedures, common facility records and forms, parts procurement, directives system, certification program, training and

career development, and accident notification procedures.

**Prerequisites:** None  
**And one of the following:** None

## 45515 Increasing NAS Knowledge (INK), FAA Order 6000.15

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for all AF personnel on the General Maintenance Handbook for Airway Facilities, FAA Order 6000.15. Subject areas include: general maintenance philosophy; organizational information; certification procedures (Tort law and litigation); maintenance requirements (technical documentation and logging practices); coordination requirements (periodic maintenance, scheduling, aircraft accident, and inspections); and protection of government property and personnel. The primary purpose is to increase NAS knowledge by covering topics in the general maintenance handbook for AF, which will provide employees with an understanding of their roles and responsibilities as defined.

**Prerequisites:** None  
**And one of the following:** None

## 45516 Instructor Training (TTT) Increasing NAS Knowledge

Training Manager: AMA-405 Course Length: 80 hour(s)

This train-the-trainer course is for potential FAA Ink instructors who will be delivering this training at various field sites. The course consists of formal classroom instruction, workshop sessions, and practice teaching exercises. Content includes a complete overview of the teaching materials for the Ink course, instructor techniques for effective communications, facilitating discussions, using media, and how to use course lesson plans for effective training sessions. Emphasis is placed upon each student's effectiveness in performing the final practice teaching exercise, which will be critiqued by the instructors. Upon completion, instructors will be qualified to conduct course 45515.

**Prerequisites:** 44506  
**And one of the following:** 10501, 10520

## 45518 Associate Certified Electronics Technician (AST)

Training Manager: AMA-405 Course Length: 2 hour(s)

This course number has been established to document satisfactory completion of the associate certified electronics technician (AST) examination.

**Prerequisites:** None  
**And one of the following:** None

## 46045 AN/GRN-29 ILS

Training Manager: AMA-405 Course Length: 216 hour(s)

This course is for personnel responsible for the organization and intermediate maintenance of the Solid-State Instrument Landing System II (SSILS II), AN/GRN-29(V).

**Prerequisites:** None  
**And one of the following:** 40233, 40283

## 46048 Model 40 ARTS II Teletype-Tempest

Training Manager: AMA-405 Course Length: 160 hour(s)

This course provides training for technicians on the Model 40 Data Terminal. Subjects include application of teletypewriter transmission principles and signaling techniques, circuit and machine function characteristics, use of technical publications, equipment testing, troubleshooting, and maintenance procedures; use of maintenance tools and test equipment; and operation of a CPU, maintenance of CRT display monitor, printers, cassette drive storage units, and external interfacing.

**Prerequisites:** None  
**And one of the following:** None

## 46049 Tempest Design Engineer

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training for design and engineering personnel covering requirements of the NCAIM 5203. Subjects include methods for engineering systems to prevent negating the Tempest feature of any communication type equipment, and general Tempest information.

**Prerequisites:** None  
**And one of the following:** None

## 46060 AN/FRN-45 Tactical Air Navigation (TACAN)

Training Manager: AMA-405 Course Length: 152 hour(s)

This course provides training for technicians on AN/FRN-45 TACAN. Lectures and laboratory exercises cover functional TACAN/DME (Distance Measuring Equipment) operations; station block diagrams; analysis of digital computers, radio frequency amplifiers, transponders, monitors, power supplies, antennas, DME receivers, and control indicators (RCU); and system troubleshooting.

**Prerequisites:** 40276  
**And one of the following:** None

## 46071 Open Radar Product Generator (WSR-88D)

Training Manager: AMA-405 Course Length: 48 hour(s)

The course objective is to provide the skills required to perform operation and maintenance of the ORPG system. This includes familiarization with the Sun microsystems Ultra SPARC 5 & 10 workstations, Cisco switches and routers, APC UPS, and PTI communications server. Students will learn to 'boot up' the stations, sign on and initiate all software applications necessary for the proper operation of the system. The course will explain the interconnections of the system as well as the maintenance philosophy. Students will learn how to load all software on the systems and perform software backup tasks utilizing the available backup media. Fault isolation will be practiced along with configuration.

**Prerequisites:** 46068  
**And one of the following:** None

## 46072 Radar Evaluation for Optimization

Training Manager: AMA-405 Course Length: 168 hour(s)

This course is for ATSS who are responsible for optimizing long-range radar systems. Test and evaluation principles of modern long-range surveillance systems including optimization and performance analysis, prefield activities, infield performance analysis and postfield debrief and quick look. Basic math includes scientific and engineering notation, logarithms, quadratic equations, pythagorean theorem, sine and cosine, hexadecimal numbering system, and constructing a DBM conversion chart. Basic radar includes concepts, elements of beacon, target position, radiation patterns, detection range, coverage prediction, and radiation hazards.

**Prerequisites:** None  
**And one of the following:** 40383, 40388, 40398, 40399, 40408

## 46073 AN/FRN-45 TACAN

Training Manager: AMA-405 Course Length: 64 hour(s)

This course covers system analysis to include radiation pattern development, system block diagrams, performance measurements, circuit assembly alignments, and a concentration on system operational evaluations in making value judgements associated with certifications responsibilities. This course is 25 percent lecture and 75 percent laboratory,

**Prerequisites:** None  
**And one of the following:** None

## 46504 DOD - TSEC/KG-84(A)(C) Limited Maintenance

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for technicians on the KG-84 equipment to provide the national security agency certification. Subjects include identification and replacement of malfunctioning plug-in components, equipment operation checks, adjustments, COMSEC, Tempest, and safety.

**Prerequisites:** 44416  
**And one of the following:** None

## 46505 FAA/Air Force Radar Replacement CI-13 Remote Rekey System

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for radar personnel responsible for maintenance of the Department of Defense (DOD) CI-13 Rekeying System. Subjects covered include purpose and function of the master control unit, remote control unit, ancillary equipment, system-level troubleshooting and restoring procedures, and individual equipment troubleshooting and restoring procedures.

**Prerequisites:** 40408  
**And one of the following:** None

## 47008 (CBI) Second Generation VORTAC System Overview

Training Manager: AMA-420 Course Length: 20 hour(s)

This course provides training for technicians on the VOR/DME/TACAN, Type FA-9996. The course is 100% computer-based instruction (CBI). Subjects include purpose of VOR/TACAN, interface to NAS, block diagram analysis, location and function of VORTAC subsystems, assemblies, and subassemblies, RMM interface to RMC-F to AF work center.

**Prerequisites:** 40276  
**And one of the following:** None

## 47011 (CBI) Solid State Radar Beacon Decoder (SSRBD)

Training Manager: AMA-440 Course Length: 16 hour(s)

This course provides training for technicians on the SSRBD equipment. The course is 100% computer-based instruction (CBI). Subjects include system concepts, control circuits, and line replaceable units.

**Prerequisites:** 88440  
**And one of the following:** 40335, 47706, 45310, 40398, 44320

## 47012 (CBI) Introduction to Telecommunication

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians and engineers on FAA-owned and vendor-provided telecommunication facilities and equipment. The course is 100% computer-based instruction (CBI). Subjects include central office operations, T1 transmission concepts, accessing networks, types of networks, transmission facilities,

termination, line testing equipment, and future telecommunications. The course emphasizes industry terminology needed to communicate and coordinate with outside vendors.

**Prerequisites:** None  
**And one of the following:** None

## 47014 (CBI) Digital Voice Recording System (DVRS)

Training Manager: AMA-410 Course Length: 24 hour(s)

This course provides training for technicians on the DVRS to the LRU level. The course is 9 hours correspondence study, 15 hours computer-based exercises (CBE), and a computer-based final exam. Subjects include overview and operation, system configuration, preventive and corrective maintenance procedures, diagnostic error codes, and use of program documentation.

**Prerequisites:** 88440  
**And one of the following:** None

## 47015 (CBI) VTABS Database Operator

Training Manager: AMA-410 Course Length: 10 hour(s)

This course provides training on the VSCS Training and Backup System (VTABS), Type 10500, for ARTCC technicians, engineers, and SPS's; FAA Technical Center personnel; and air traffic control specialists (using air traffic course number). The course is 100% computer-based instruction (CBI). Subjects include system introduction, system overview, VTABS workstation, database management operations, system monitor and control subsystem. A VTABS CBI platform (provided by VSCS program office per implementation schedule) is required. Also required are VTABS system operations manuals and master instructor data entry operator/supervisor manuals.

**Prerequisites:** None  
**And one of the following:** 40272, 40273, 48171, 48172

## 47016 (CBI) VTABS Master Instructor/Supervisor System Overview

Training Manager: AMA-410 Course Length: 13 hour(s)

This course provides training on the VSCS Training and Backup System (VTABS), Type 10500 for ARTCC technicians, engineers, and NAS managers; FAA Tech Center personnel; and air traffic supervisory personnel (using air traffic course number). The course is 100% computer-based instruction (CBI). Subjects include system introduction, system overview, VTABS workstation, cutover switch subsystem, system monitor and control subsystem. A VTABS CBI platform (provided by VSCS program office per implementation schedule) is required. Also required are VTABS system operations manuals and master instructor data entry operator/supervisor manuals.

**Prerequisites:** None  
**And one of the following:** 40289, 49242

## 47018 (CBI) Recovery Communications System (RCOM) Operator

Training Manager: AMA-410 Course Length: 20 hour(s)

This course provides training for technicians and engineers who are Recovery Communications (RCOM) System operators. The course is 12 hours of self-study and 8 hours of computer-based instruction (CBI). Self study subjects include system purpose and function of system components. CBI subjects include system startup and shutdown, alarms/alerts, and system operation.

**Prerequisites:** None  
**And one of the following:** None

## 47019 (CBI) Recovery Communications System (RCOM) Maintenance

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians and engineers who will maintain the Recovery Communications (RCOM) System. The course is 24 hours of self-study and 16 hours of computer-based instruction (CBI). Self-study subjects include system purpose, function of system components, and fault isolation. CBI subjects include system startup and shutdown, alarms/alerts, system operation, and fault isolation procedures.

**Prerequisites:** None  
**And one of the following:** None

## 47020 (CBI) Nexcom Multimode Digital Radio (Analog)

Training Manager: AMA-410 Course Length: 16 hour(s)

This course provides training for air traffic system specialists on the NEXCOM Multimode Digital Radio (MDR), analog mode. This course is 16 hours of computer-based instruction (CBI) self-study. The CBI and self-study include the installation, operation, maintenance, and troubleshooting of the NEXCOM MDR (analog) VHF transmitters, receivers, and cavity filters.

**Prerequisites:** None  
**And one of the following:** None

## 47021 (CBI) Centralized Maintenance System (CMS) for RCE

Training Manager: AMA-410 Course Length: 24 hour(s)

This course provides training for technicians and specialists on the

Centralized Maintenance System (CMS) for the radio control equipment (RCE). The course is 24 hours computer-based instruction. Subjects include hardware and software configuration, menus and Windows navigation, system administration and maintenance, network building and addressing, user interface operations, fault isolation, and simulated exercises.

**Prerequisites:** 47506  
**And one of the following:** None

## 47022 (CBI) VCSU System Overview Delta

Training Manager: AMA-410 Course Length: 8 hour(s)

This course provides training for NAS managers for the VSCS Control Subsystem Upgrade (VCSU) of the Voice Switching and Control System (VSCS). The course is 100% computer-based instruction. The scope of the subject matter is changes to the VSCS as a result of the VCSU implementation. Subjects include system architecture and workstation operations. No student guide is provided with this course. The final exam is closed book.

**Prerequisites:** None  
**And one of the following:** 40289, 49242

## 47023 (CBI) CM-300 UHF Series Radio System

Training Manager: AMA-410 Course Length: 8 hour(s)

This course provides training for AF technicians and engineers on the UHF series radio system. This course is 8 hours CBI with final exam. It covers transmitters, receivers, and cavity filters. Subjects include theory of operations, installation, configuration and maintenance.

**Prerequisites:** 47504  
**And one of the following:** None

## 47099 (CBI) Site Administrator Orientation

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for CBI site administrators. The course is 100% computer-based instruction (CBI). The course includes basic introductory lessons for first-time CYBER-based Instructional System (CYBIS) users. Subjects include management files and step-by-step procedures to maintain site CYBIS groups, student enrollment, ordering course materials, grade inspection, graded curriculums, ECC, RSITEA, writing notes, and obtaining graded exam passwords. No graded exams.

**Prerequisites:** None  
**And one of the following:** None

## 47100 (CBI) Radar Remote Weather Display System (RRWDS) Digitizer

Training Manager: AMA-440 Course Length: 9 hour(s)

This course provides refresher/proficiency training for technicians and engineers on the RRWDS digitizer. The course is 100% computer-based instruction (CBI) with four modules. Subjects include preventive maintenance and troubleshooting procedures with three modules for monthly, quarterly, and semiannual preventive maintenance tasks. A fourth module checks proficiency in simulated troubleshooting with built-in test equipment (BITE) and modem tests and adjustments.

**Prerequisites:** None  
**And one of the following:** 40379, 47302

## 47101 (CBI) RRWDS Processor Display

Training Manager: AMA-440 Course Length: 17 hour(s)

This course provides refresher/proficiency training for technicians and engineers on the Radar Remote Weather Display System (RRWDS) processor display. The course is 100% computer-based instruction (CBI) with four modules. Subjects include preventive maintenance and troubleshooting procedures with three modules that provide a refresher in monthly, quarterly, and semiannual preventive maintenance tasks. A fourth module checks proficiency in simulated troubleshooting with built-in test equipment (BITE) and modem tests and adjustments.

**Prerequisites:** None  
**And one of the following:** 40380, 47304

## 47102 (CBI) Type I ICSS

Training Manager: AMA-410 Course Length: 12 hour(s)

This course provides refresher/proficiency training for technicians and engineers on the Model 400 Integrated Communications Switching System (ICSS), Type I. The course is 100% computer-based instruction (CBI). Subjects include functional analysis using system block diagrams, periodic maintenance using a simulator generated system and simulated test equipment, and corrective maintenance using a simulated malfunctioning Type I ICSS and simulated test equipment.

**Prerequisites:** 40023  
**And one of the following:** None

## 47105 (CBI) Exide Uninterruptible Power Supply (UPS)

Training Manager: AMA-430 Course Length: 16 hour(s)

This course provides refresher/proficiency training for technicians on the Exide UPS. The course is 100% computer-based instruction (CBI). Subjects include a review of the Exide UPS, operating procedures, performance maintenance procedures, and trouble analysis procedures.

**Prerequisites:** 40149  
**And one of the following:** None

## 47107 (CBI/MM) Precision Approach Path Indicator

Training Manager: AMA-430 Course Length: 30 hour(s)

This course provides training for technicians on the PAPI with RMS, Type FA-10265. This course also satisfies training required for the NBP PAPI/RMS, Type FA-10620. The course is 18 hours computer-based instruction (CBI) and 12 hours field-conducted lab. CBI and ATA subjects include PAPI configuration, PCA cabinet, IHA cabinet and components, aiming instrument set, and RMS. Lab subjects include PCA and IHA cabinets, lamps out, current adjustment, IHA alignments, RMS, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 47108 (CBI) Air Route Surveillance Radar (ARSR)-1/2 SSR/DMTI Sys

Training Manager: AMA-440 Course Length: 18 hour(s)

This course provides refresher/proficiency training for technicians on the ARSR-1/2 Solid-State Receiver (SSR)/Digital Moving Target Indicator (DMTI) System. The course is 100% computer-based instruction (CBI). Subjects include functional overview, preventive maintenance tasks, block-diagram overview, simulation of preventive maintenance, troubleshooting, and corrective maintenance adjustments, and practice to proficiency in simulated troubleshooting.

**Prerequisites:** 40383  
**And one of the following:** None

## 47109 (CBI/MM) Remote Radio Control System (RRCS)

Training Manager: AMA-430 Course Length: 30 hour(s)

This course provides training for technicians on the New Bedford Panoramex RRCS, Type FA-10266. The course is 100% self-study text with computer-based exercises and computer-based final exam. Subjects include switch assembly cabinet, encoder interface unit, transmitter, receiver, decoder, and corrective maintenance.

**Prerequisites:** None  
**And one of the following:** None

## 47110 (CBI) ERMS for MCC Specialists

Training Manager: AMA-430 Course Length: 4 hour(s)

This course provides training for MCC specialists on the Environmental Remote Monitoring Subsystem (ERMS) used by FAA to monitor

environmental data at the FAA facilities where mandatory ERMS has been installed. The course is 100% CBI. Subjects include an ERMS overview, environmental monitoring overview, introduction to maintenance automation system software (MASS), introduction to direct monitor and control software (DMCS), and remote operation.

**Prerequisites:** 44423  
**And one of the following:** None

## 47111 (CBI) ERME for Technicians

Training Manager: AMA-430 Course Length: 6 hour(s)

This course provides training for technicians on the Environmental Remote Monitoring Subsystem (ERMS) used by FAA to monitor environmental data at the FAA facilities where mandatory ERMS has been installed. The course is 100% CBI. Subjects include ERMS assemblies and subassemblies, installation and operation of optical software, configuration of the MDT, local site configuration and calibration, site verification, and troubleshooting remote operations.

**Prerequisites:** 44423  
**And one of the following:** None

## 47112 (CBI) ARTCC Critical and Essential Power System (ACEPS)

Training Manager: AMA-430 Course Length: 24 hour(s)

This course provides training for airway facilities technicians, engineers, specialists, and Technical Center personnel on the ARTCC Critical and Essential Power System (ACEPS). This course is 24 hours computer-based instruction with an end-of-course examination. Subjects include equipment location, function, and operational characteristics.

**Prerequisites:** None  
**And one of the following:** 44111, 44117

## 47202 (CBI) ARMS for ILS FA-10166

Training Manager: AMA-420 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the Airport Remote Monitoring System (ARMS). The course is 100% computer-based instruction (CBI) with advanced training aids (ATA's). Subjects include periodic maintenance checks, alignment, fault diagnosis, use of input/output terminal for ILS monitoring system verification, and theory of operation. Practical exercises (ATA's) develop proficiency on the above topics. ATA's, general test equipment, and computer terminal are required to configure, troubleshoot, and repair the following subsystems: Link Control Unit, Remote Monitoring Subsystem, and the battery charger power supply. ATA's are downloadable from the CD ROM.

**Prerequisites:** 88440  
**And one of the following:** None

## 47203 (CBI) ARTS Operations for MCC Specialists

Training Manager: AMA-480 Course Length: 6 hour(s)

This course provides breadth training for NAS managers on the functional operational characteristics of the Automated Radar Terminal System (ARTS). The course is 100% computer-based instruction (CBI). Subjects include subsystem overview, basic terminology, and certification and reporting requirements.

**Prerequisites:** None  
**And one of the following:** None

## 47206 (CBI) Communications Operations for MCC

Training Manager: AMA-480 Course Length: 16 hour(s)

This course provides breadth training for NAS managers on the functional operational characteristics of communications systems (VSCS, RCAG, BUEC, RCO, RTR, RCE, STVS). The course is 100% computer-based instruction (CBI). Subjects include the primary subsystems, RMM capabilities, diagnostic and restoration procedures, and certification and reporting requirements.

**Prerequisites:** None  
**And one of the following:** None

## 47207 (CBI) Radar Operations for MCC Specialists

Training Manager: AMA-480 Course Length: 52 hour(s)

This course provides breadth training for NAS operations managers/area specialists on the functional operational characteristics of the ASR, ARSR, ATCBI, Mode-S, ASDE, and TDWR radar systems. The course is 100% CBI. Subjects include primary radar subsystems, RMM capabilities unique to specific radar systems, diagnostic and restoration procedures, and certification reporting requirements. There are 9 exams. The first exam must be completed to receive credit. Students must enroll and complete the specific course for radar systems they are responsible for (see list). Additional courses should be based on monitoring and control responsibilities. (List: 47305/6/7/8/9/10/11 and 47208)

**Prerequisites:** None  
**And one of the following:** None

## 47208 (CBI) Lighting Aids and Environmental Systems for MCC

Training Manager: AMA-480 Course Length: 6 hour(s)

This course provides breadth training for NAS managers on the functional and operational characteristics of the various lighting aids

(MALSR, ALSF, VASI, PAPI, REILS, ODALS, LDIN) and environmental systems (PCSS, CCMS, and E/GS). The course is 100% computer-based instruction. Subjects include the primary subsystems, RMM capabilities, diagnostic and restoration procedures, and certification and reporting requirements.

**Prerequisites:** None  
**And one of the following:** None

## 47210 (CBI) ILS Procedures

Training Manager: AMA-420 Course Length: 24 hour(s)

This course provides training for technicians and engineers who maintain the ILS. This course is 24 hours computer-based instruction. Subjects include general maintenance concepts, evolution of ILS maintenance, flight inspections and tolerances, periodic maintenance activities, reference flight inspection, periodic flight inspection, periodic-with-monitors flight inspection, and documenting reference and traceable parameters.

**Prerequisites:** None  
**And one of the following:** 40233, 40283

## 47211 (CBI) ARSR-4 Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 12 hour(s)

This course provides training for AF technicians and engineers on the ARSR-4 System. The course is 100% computer-based instruction (CBI). Subjects include ARSR-4 subsystem overview, RMM capabilities, diagnostic and restoration procedures, and certification and reporting requirements.

**Prerequisites:** None  
**And one of the following:** None

## 47212 (CBI) ILS Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 12 hour(s)

This course provides training for AF technicians and engineers on the functional operational characteristics of Instrument Landing Systems (ILS). The course is 100% computer-based instruction (CBI). Subjects include ILS subsystems, RMM capabilities, diagnostic and restoration procedures, and certification and reporting requirements.

**Prerequisites:** None  
**And one of the following:** None

## 47213 (CBI) VORTAC Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 17 hour(s)

This course provides training for technicians and engineers on the

VORTAC System. The course is 100% computer-based instruction (CBI). Subjects include subsystem overview, RMM capabilities, diagnostic and restoration procedures, and certification and reporting requirements. Only technicians who will perform certification from remote locations (e.g. OCCS/SOCS) and have not held VORTAC certification are required to complete prerequisite course 40284.

**Prerequisites:** 40284  
**And one of the following:** None

## 47302 (CBI) RRWDS-Digitizer

Training Manager: AMA-440 Course Length: 24 hour(s)

This course provides training for technicians, engineers, and developmental technicians on the Radar Remote Weather Display System (RRWDS) digitizer, Type FAA-9901/1/2/3. The course is 100% computer-based instruction (CBI) with advanced training aids (ATA's), and a supervised final. CBI subjects include the radar interface, video processing, communication system, and built-in test equipment. The ATA's include operation, routine maintenance, adjustments, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 47304 (CBI) RRWDS-Processor/Display

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians, engineers, and developmental technicians on the Radar Remote Weather Display System (RRWDS) processor/display, Type FAA-9901/6/7. The course is 100% computer-based instruction (CBI) with advanced training aids (ATA's). CBI subjects include the processing unit, refresh-memory system, color generator, character generator, sweep deflection, and convergence. The ATA's include operation, routine maintenance, adjustments, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 47307 (CBI) ARSR-3 Exam for MCC Specialists

Training Manager: AMA-480 Course Length: 1 hour(s)

This exam is based upon the information provided in Course 47207, (CBI) Radar Operations for MCC Specialists. This exam consists of five questions which cover the ARSR-3 subsystems, monitoring, commands, cautions, and restrictions.

**Prerequisites:** 47207  
**And one of the following:** None

## 47308 (CBI) Mode-S Exam for MCC Specialists

Training Manager: AMA-480 Course Length: 1 hour(s)

This exam is based upon the information provided in Course 47207, (CBI) Radar Operations for MCC Specialists. This exam consists of five questions that cover the Mode-S Subsystems, monitoring, commands, diagnosis, cautions, and restrictions.

**Prerequisites:** 47207  
**And one of the following:** None

## 47309 (CBI) Beacon Equipment (ATCBI-3/4/5) Exam for MCC

Training Manager: AMA-480 Course Length: 1 hour(s)

This exam is based upon the information provided in Course 47207, (CBI) Radar Operations for MCC Specialists. This exam consists of five questions which cover the ATCBI-3/4/5 subsystems, monitoring, commands, and cautions and restrictions.

**Prerequisites:** 47207  
**And one of the following:** None

## 47310 (CBI) ARSR-4 Exam for MCC Specialists

Training Manager: AMA-480 Course Length: 1 hour(s)

This exam is based upon the information provided in Course 47207, (CBI) Radar Operations for MCC Specialists. This exam consists of five questions which cover the ARSR-4 subsystems, monitoring, commands, and cautions and restrictions.

**Prerequisites:** 47207  
**And one of the following:** None

## 47313 (CBI) Beacon Only Site RMMS (BOS RMMS)

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians and engineers on the Beacon Only Site Remote Maintenance Monitoring System (BOS RMMS). This course is 100% computer-based instruction (CBI). Subjects include system overview, theory of operation, operating procedures, corrective and preventive maintenance procedures, and in-depth troubleshooting analysis.

**Prerequisites:** 44323, 47706  
**And one of the following:** None

## 47314 (CBI) BERMS Hardware

Training Manager: AMA-440 Course Length: 40 hour(s)

This course provides training for technicians on the BERMS, an additional system for ARSR-4 sites. The course is 100% computer-based instruction (CBI). Subjects include system operation,

preventive maintenance, corrective maintenance system analysis, and system restoration. Students who have completed course 40408, 47706, or 44323 must take BERMS as a stand-alone CBI course.

**Prerequisites:** None  
**And one of the following:** 40408, 47706, 47313, 44323

## 47315 (CBI) STARS Technical On-Site Representatives (TOR)

Training Manager: AMA-405 Course Length: 12 hour(s)

This course provides training for ANI personnel on the STARS System, the roles and responsibilities of the technical on-site representative (TOR), FAA Order 6030.45A, contractor acceptance inspection, and joint acceptance inspection. This course does not have a paper-based student guide.

**Prerequisites:** None  
**And one of the following:** None

## 47316 (CBI) Introduction to Windows NT

Training Manager: AMA-460 Course Length: 20 hour(s)

This course provides training for technicians, engineers, computer operators, and developmental technicians on the use of the Windows NT operating system set up on a 486dx2/66 Mhz computer with mouse, 16Mb RAM, 2xcd-ROM, monitor with 256 colors, 640x480 resolution (800x600 recommended), and optional sound card with speakers or headphones. The course is 100% computer-based instruction (CBI). Subjects include Windows NT overview; managing accounts and groups; files, printing, and networking interoperability; Windows NT server administration; and troubleshooting, optimization, and maintenance. Students are required to complete disk one (1) only.

**Prerequisites:** None  
**And one of the following:** None

## 47317 (CBI) TAIU-S AF Maintenance Training

Training Manager: AMA-440 Course Length: 11 hour(s)

This course provides training for technicians, developmental technicians, and system performance specialists on the TAIU-s. The course is 11 hours CBI and includes a final exam. Subjects include system overview; system interfaces; operational screens and controls; startup/shutdown procedures; radar channel selection; software installation; parameter changes; copy log files; periodic maintenance; troubleshooting; fault isolation; and corrective maintenance.

**Prerequisites:** None  
**And one of the following:** None

**47401 (CBI/MM) Tower Data Link Services (TDLS)**

Training Manager: AMA-480 Course Length: 8 hour(s)

This course provides training for technicians and engineers on the TDLS automation equipment. The course is 7 hours correspondence study and 1 hour computer-based exercises with a supervised final. Correspondence study subjects include description, function, distribution, facility/class code and staffing standards, certification requirements, TDLS operations, maintenance, troubleshooting, and restoration to operational status. This course is for localities that still have legacy TDLS Systems installed. Course 40422 is for localities currently installing the new TDLS Aystem.

**Prerequisites: None**  
**And one of the following: None**

**47406 (CBI) Codex/Motorola 9800 NMS**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians, engineers, and system performance specialists on the Codex/Motorola 9800 NMS. The course is 100% computer-based instruction (CBI). Subjects include building a data multiplexing network, operating the network, and maintaining the network.

**Prerequisites: 47411**  
**And one of the following: None**

**47407 (CBI) Type I/II Statistical Multiplexer Maintenance**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians on the statistical multiplexers, Types DCX 808, DCX 816, DCX 832, and DCX 844. The course is 100% CBI. Subjects include: initializing and accessing DCX devices; utilizing controls, menus and indicators; configuring channel and ARQ-link parameters; monitoring DCX devices; and performing diagnostic testing and fault isolation procedures.

**Prerequisites: None**  
**And one of the following: None**

**47408 (CBI) Type III Statistical Multiplexer Maintenance**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians on the statistical multiplexers, type DCX 840 and DCX 850. The course is 100% CBI. Subjects include determining location and function of all cards and subassemblies; strapping and configuring DCX cards; constructing device and channel maps; configuring the USO, NCAM, and monitor cards to operate the DCX 850; and performing diagnostic testing and fault isolation procedures.

**Prerequisites: 47407**  
**And one of the following: None**

**47410 (CBI) HID/NAS/LAN E-Com Monitor**

Training Manager: AMA-480 Course Length: 3 hour(s)

This course provides training for technicians and NAS managers on the Host Interface Device/National Airspace System/Local Area Network (HID/NAS/LAN) E-com monitor. The course is 100% computer-based instruction. Subjects include components of the HID/NAS/LAN system, system data flow, and use of the E-com monitor to view and change Netview configurations.

**Prerequisites: None**  
**And one of the following: None**

**47411 (CBI) Data Telecommunications for ARTCC's**

Training Manager: AMA-470 Course Length: 56 hour(s)

This course provides training for technicians on the Codex 6250 DNM, 2185 bridge, and Codex 3600 modem. The course is 100% computer-based instruction (CBI). Subjects include general theory, Codex 3600 modem operation, Codex 6250 digital network multiplexer, Olektron A/B switch, and Olektron clock box.

**Prerequisites: None**  
**And one of the following: None**

**47412 (CBI) Data Telecommunications for Remote Sites**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians on the Codex 3600 modem and 2185 digital bridge. The course is 100% computer-based instruction (CBI). Subjects include general communications theory, 3600 Codex modem operation, and 2185 digital bridge operation.

**Prerequisites: None**  
**And one of the following: None**

**47413 (CBI) Data Telecommunications for Long Range Radar**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians on the Codex 3600 modem, 2185 digital bridge, and clock box. The course is 100% computer-based instruction (CBI). Subjects include general communications theory, 3600 Codex modem operation, 2185 digital bridge operation, and clock box operation and maintenance.

**Prerequisites:** None  
**And one of the following:** None

## **47414 (CBI) Data Telecommunications for Large Remote Sites**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians on the Codex 3600 modem, 2185 bridge, and A/B switch. The course is 100% computer-based instruction (CBI). Subjects include general communications theory, Hadex 4000 patch panel, Codex 3600 operation, and Olektron A/B switch operation and maintenance.

**Prerequisites:** None  
**And one of the following:** None

## **47415 (CBI) Traffic Flow Management Infrastructure (TFMI)**

Training Manager: AMA-470 Course Length: 40 hour(s)

This course provides training for technicians, engineers, and FAA Technical Center personnel on ETMS Model HP-C360 equipment. The course is 20 hours self-study text with 20 hours computer-based exercises (CBE). Self-study subjects include system overview, workstation user environment, UNIX, monitor, keyboard, trackball, tape drive, troubleshooting, and fault isolation procedures. CBE subjects include login, files and directories, basic commands, HP tools, workstation/file-server basics, addresses, diagnostic commands, troubleshooting, and fault isolation.

**Prerequisites:** None  
**And one of the following:** None

## **47418 (CBI/MM) HOCSR System Architecture for Computer Operators**

Training Manager: AMA-470 Course Length: 10 hour(s)

This course provides training for computer operators on the new IBM Model 9672 (G3) Mainframe System 390 architecture for the NAS. Course is 5.5 hours self-study text and 2.5 hours computer-based exercises (CBE) with a supervised open-book final exam (2 hours). The course covers operational changes to NAS due to Phase II of the HOST Oceanic Computer System Replacement (HOCSR) program. Subjects include changes to the documentation; software system overview; new, modified, and deleted monitor four-letter messages; and solicited/unsolicited output messages.

**Prerequisites:** [40420](#)  
**And one of the following:** None

## **47420 (CBI/MM) HOCSR System Architecture for System Specialists**

Training Manager: AMA-470 Course Length: 16 hour(s)

This course provides training for system specialists on the new IBM Model 9672 (G3) Mainframe System 390 architecture for the NAS. The course is 10.5 hours self-study text and 3.5 hours computer-based exercises (CBE) with a supervised open-book final exam (2 hours). The course covers operational changes to NAS due to Phase II of the HOST Oceanic Computer System Replacement (HOCSR) program. Subjects include changes to the documentation; software system overview; hardware system overview; new, modified, and deleted monitor four-letter messages; and solicited/unsolicited output messages; ACES; compool tables; and Deltas between System 370 and 390 architecture and instruction sets.

**Prerequisites:** [40420](#), [43021](#)  
**And one of the following:** None

## **47421 (CBI/MM) HOCSR System Architecture for NAS/NOM**

Training Manager: AMA-470 Course Length: 14 hour(s)

This course provides training for NAS managers on the new IBM Model 9672 (G3) Mainframe System 390 architecture for the NAS. Course is 8.5 hours self-study text and 3.5 hours computer-based exercises (CBEs) with supervised open-book final exam (2 hours). The course covers operational changes to NAS due to Phase II of the HOST Oceanic Computer System Replacement (HOCSR) program. Subjects include changes to the documentation; software system overview; hardware system overview; new, modified, and deleted monitor four-letter messages; and solicited/unsolicited output messages; ACES; and compool tables.

**Prerequisites:** [40420](#)  
**And one of the following:** [43040](#), [43014](#), [43535](#)

## **47422 (CBI) Teledyne RVR for AFCC Specialists**

Training Manager: AMA-480 Course Length: 5 hour(s)

This course provides training for AFCC specialists on the Runway Visual Range (RVR) Teledyne Model 10628. The course is 100% computer-based instruction. Subjects include RVR principles, RVR subsystem components, monitoring and intereactions, and activities necessary to manage RVR alarms.

**Prerequisites:** None  
**And one of the following:** None

## **47423 (CBI/MM) Oceanic S/390 Architecture for Software Specialists**

Training Manager: AMA-470 Course Length: 14 hour(s)

This course provides training for oceanic systems specialists and Technical Center personnel on the IBM Model 9672 (G3) Mainframe System 390 architecture for the NAS. The course is 9 hours self-study text and 3 hours computer-based exercises (CBE) with a 2-hour supervised open-book CBI final exam. The course covers operational changes to the Oceanic System due to Phase II of the HOCSR program. Subjects include changes to the documentation; H/W and S/W system overview; new, modified, and deleted monitor four-letter messages; solicited/unsolicited output messages; ACES records; compool tables; and support software Deltas between Phase II enroute and Phase II Oceanic Systems.

**Prerequisites:** 48309, 47420  
**And one of the following:** None

## 47424 (CBI/MM) Oceanic S/390 Architecture for System Operations

Training Manager: AMA-470 Course Length: 10 hour(s)

This course provides training for Oceanic System NAS/NOMS, hardware technicians, and computer operators on the IBM Model 9672 (G3) Mainframe System 390 architecture for the NAS. The course is 6 hours self-study text and 2 hours computer-based exercises (CBE) with a 2-hour supervised open-book CBI final exam. The course covers operational changes to the Oceanic System due to Phase II of the HOCSR program. Subjects include changes to the documentation; hardware and software system overview; new, modified, and deleted monitor four-letter messages; solicited/unsolicited output messages; and support software Deltas between Phase II enroute and Phase II oceanic systems.

**Prerequisites:** 48310  
**And one of the following:** 47418, 47419, 47421

## 47425 (CBI) CTAS Remote Site Maintenance

Training Manager: AMA-480 Course Length: 8 hour(s)

This course provides training for technicians and engineers who remotely maintain the Center TRACON Automation System (CTAS). The course is 8 hours computer-based instruction (CBI). Subjects include CTAS configuration, operation, and monitoring; remote system access; monitoring the Traffic Management Advisor (TMA) System remotely; remote fault isolation; and periodic system maintenance.

**Prerequisites:** 88440, 88441  
**And one of the following:** None

## 47426 (CBI) Teledyne RVR Remote Operations for AF Specialists

Training Manager: AMA-480 Course Length: 3 hour(s)

This course provides training for field specialists on the Runway Visual Range (RVR) Teledyne Model 10628 remote operations. The course is 100% computer-based instruction. Subjects include RVR

monitoring and interaction via the MCF and activities necessary to manage RVR alarms.

**Prerequisites:** 44423  
**And one of the following:** 40279, 45019, 48179

## 47429 (CBI) Weather Radar Systems Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides information for the AFCC specialist who is responsible for weather radar systems operation. This course is 24 hours computer-based instruction. Subjects include TDWR and NEXRAD equipment status/availability, TDWR and NEXRAD periodic maintenance, control of the TDWR and NEXRAD (reconfigure, reset, restore, etc.), TDWR and NEXRAD IMCS/MASS screen navigation and interpretation, and given data points and commands, students will relate the TDWR and NEXRAD system block diagram to the IMCS/MASS.

**Prerequisites:** 47207  
**And one of the following:** None

## 47430 (CBI) Term Surveillance RDR Sys OPS for AFCC Specialists

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides information for the AFCC specialist who is responsible for terminal surveillance radar systems operation. This course is 24 hours computer-based instruction. Subjects include ASR-7/8/9 equipment status/availability, ASR-7/8/9 periodic maintenance, control of the ASR-7/8/9 (reconfigure, reset, restore, etc.), ASR-7/8/9 IMCS/MASS screen navigation and interpretation, and given data points and commands, students will relate the ASR-7/8/9 system block diagram to the IMCS/MASS.

**Prerequisites:** 47207  
**And one of the following:** None

## 47431 (CBI) Mode-S Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides information for the AFCC specialist who is responsible for Mode-S operations. This course is 24 hours computer-based instruction. Subjects include Mode-S equipment status/availability, Mode-S periodic maintenance, control of the Mode-S (reconfigure, reset, restore, etc.), Mode-S IMCS/MASS screen navigation and interpretation, and given data points and commands, students will relate the Mode-S system block diagram to the IMCS/MASS.

**Prerequisites:** 47207  
**And one of the following:** None

## 47432 (CBI) NIMS Event Management System for NAS

Training Manager: AMA-480 Course Length: 32 hour(s)

This course is 30 hours correspondence study with lab exercises and a 2-hour CBI final exam. It teaches the use of NAS Infrastructure Management System (NIMS) Event Management System (EMS) application to manage, report, & track NAS events. Subjects include opening a call ticket; create, resolve & review tickets; schedule, retrieve & document periodic maintenance activities; manage administrative events & resources; generate reports; & NIMS mobile application. The course provides info for mgrs, staff, coordinators, team leads, & specialists at the NOCC, OCC, SOC, SSC, & work center locations supporting NIMS EMS. Familiarity with current version of FAA Orders 6000.15, 6000.48 & 6040.15 recommended.

**Prerequisites:** None  
**And one of the following:** None

## 47433 (CBI) ARSR-3 Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides information for the AFCC specialist who is responsible for ARSR-3 operations. This course is 24 hours computer-based instruction. Subjects include ARSR-3 equipment status/availability, ARSR-3 periodic maintenance, control of the ARSR-3 (reconfigure, reset, restore, etc.), ARSR-3 IMCS/MASS screen navigation and interpretation, and given data points and commands, students will relate the ARSR-3 system block diagram to the IMCS/MASS.

**Prerequisites:** 47207  
**And one of the following:** None

## 47434 (CBI) ARSR 1/2 Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides information for the afcc specialist who is responsible for ARSR 1/2 operations. This course is 24 hours computer-based instruction. Subjects include ARSR 1/2 equipment status/availability, ARSR 1/2 periodic maintenance, control of the ARSR 1/2 (reconfigure, reset, restore, etc.), ARSR 1/2 IMCS/MASS screen navigation and interpretation, and given data points and commands, students will relate the ARSR 1/2 system block diagram to the IMCS/MASS.

**Prerequisites:** 47207  
**And one of the following:** None

## 47435 (CBI) FPS Operations for AFCC Specialists

Training Manager: AMA-480 Course Length: 24 hour(s)

This course provides information for the AFCC specialist who is

responsible for FPS operations. This course is 24 hours computer-based instruction. Subjects include FPS equipment status/availability, FPS periodic maintenance, control of the FPS (reconfigure, reset, restore, etc.), FPS IMCS/MASS screen navigation and interpretation, and given data points and commands, students will relate the FPS system block diagram to the IMCS/MASS.

**Prerequisites:** 47207  
**And one of the following:** None

## 47436 (CBI) D-Position Processor Upgrade Monitor and Control

Training Manager: AMA-470 Course Length: 4 hour(s)

This course provides training for DSR M&C operators and ATSS who monitor and control, replace and repair the upgraded D-Position processors. This course covers the changes to the M&C position graphical interface as a result of the D-Position upgrade, the control room maintenance concepts and the removal and replacement of the new processors LRUs. Instruction is also provided on the new procedures to backup and restore the new processors software. There is a final exam at the end of the course that covers the entire course.

**Prerequisites:** 47437  
**And one of the following:** None

## 47437 (CBI) URET System Management

Training Manager: AMA-470 Course Length: 8 hour(s)

This CBI course is intended for those requiring a general knowledge of the URET System. Subjects include operational concepts, system architecture, and software design. URET System management concepts included are resolving processor, network, external interfaces, and software applications problems. This course also includes a final examination.

**Prerequisites:** None  
**And one of the following:** 49304, 43557, 45426

## 47438 (CBI) ECG Overview

Training Manager: AMA-470 Course Length: 7 hour(s)

This 7-hour CBI course provides system-oriented training that addresses the operational aspects of the ECG hardware and software configurations. A detailed overview of ECG is included covering the PAMRI/ECG differences, ECG equipment and software, Host Computer System (HCS)/ECG System interfaces and an ECG transition module. The transition module includes tasks that address the switch forward and fallback between PAMRI and ECG.

**Prerequisites:** None  
**And one of the following:** None

## 47439 (CBI) D-Position Upgrade Maintenance and Support

Training Manager: AMA-470 Course Length: 12 hour(s)

This course is 4 hrs CBI & 8 hrs field lab. The CBI portion provides training for DSR M&C oprs & ATSS w ho monitor & ctrl, replace & repair upgraded d-position processors. Also covers changes to M&C position graphical interface as a result of D-Position upgrade, the ctrl room maint concepts & removal & replacement of new processors LRUs. Instruction provided on the new procedures to backup & restore the new processors softw are. The lab portion provides hands on training for ATSS w ho remove, replace & repair upgraded D-Position processors. Also covers the ctrl room maint concepts & removal & replacement of new processors LRUs. Also provides the new procedures to backup & restore new processors softw are. Final exam

**Prerequisites:** None  
**And one of the following:** 40445, 40446

## 47440 (CBI) ECG/DARC Overview

Training Manager: AMA-470 Course Length: 4 hour(s)

This course is for technicians, NAS managers, SPSS, and technical center personnel on the ECG/DARC equipment/eBUS softw are. The course covers DARC replacement including goals and system overview, functions and capabilities, components and interfaces to NAS, transition to/from old DARC M&C, system validation, operation of continuous data recording (CDR), system messages, and EQARS messages and reports. Final exam covers entire course.

**Prerequisites:** None  
**And one of the following:** 40447, 40448, 40449

## 47500 (CBI) Back-Up Emergency Communications (BUEC) Remote-Site

Training Manager: AMA-410 Course Length: 64 hour(s)

This course provides training for technicians on BUEC Transceivers and Control Systems, Types FA-8190 and FA-8191. The course is 56 hours computer-based instruction (CBI) and 8 hours of field-conducted on-the-job training (OJT). CBI subjects include introduction, control equipment, BUEC transmitter, and BUEC receiver. OJT subjects include coordination of maintenance activities w ith ATC, BUEC transmitter alignment and performance checks, and BUEC receiver alignment and performance checks.

**Prerequisites:** None  
**And one of the following:** None

## 47501 (CBI) Back-Up Emergency Communications-ARTCC

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians on the BUEC Transmitter and Receiver, Remote Control Group, Types FA-8190, FA-8191, FA-8192, FA-8193, and FA-8194. The course is 32 hours of computer-based instruction (CBI) and 8 hours of field-conducted on-the-job training (OJT). CBI subjects include introduction, control equipment, BUEC transmitter, BUEC receiver, and remote control group. OJT subjects include coordination of maintenance activities w ith ATC, select command and transmitter keying checks, pow er supplies check, transmit audio and audio keying level adjustments, maintenance panel operation, and remote link tester.

**Prerequisites:** None  
**And one of the following:** None

## 47504 (CBI/MM) Communication Equipment

Training Manager: AMA-410 Course Length: 144 hour(s)

This course provides training for technicians on communications equipment (CE). This course is 80 hours of computer-based instruction (CBI), self-study and 64 hours Academy lab. CBI and self-study include theory of operation of Solid-State VHF and UHF transmitters, receivers, audio, control lines, tone channeling equipment, logs, and decibels. Six blocks of instruction cover 25 modules. Lab includes communications, test equipment, electromagnetic spectrum, antenna characteristics, AM and FM signals, receiver principles, transmitter principles, telephony, radio control equipment, AN/GRR-23/24, AN/GRT-21/22, PET 2000, and Motorola CM-200.

**Prerequisites:** None  
**And one of the following:** None

## 47506 (CBI) Radio Control Equipment (RCE) Hardware Maintenance

Training Manager: AMA-410 Course Length: 40 hour(s)

This course provides training for technicians, specialists, and engineers on the hardw are and softw are configuration of the radio control equipment (RCE). The course is 16 hours computer-based instruction (CBI) and 24 hours Academy lab. CBI subjects include system overview and components, installation and configuration, maintenance data terminal (MDT) usage, system maintenance and fault isolation. Laboratory subjects include system overview, user interface operations and troubleshooting exercises used as the end-of-course evaluation.

**Prerequisites:** 47504  
**And one of the following:** None

## 47507 (CBI/MM) Small Tower Voice Switch (STVS)

Training Manager: AMA-410 Course Length: 48 hour(s)

This course provides training for AF technicians on the small tow er voice sw itch (STVS). This course is 24 hours computer-based

instruction (CBI) and 24 hours Academy laboratory. CBI subjects include system description, purpose of each LRU, STVS reconfiguration and mapping, and audio level checks/alignments. Laboratory subjects include operation of position modules, audio level checks, system alignments, system configuration, and troubleshooting.

**Prerequisites:** 47504  
**And one of the following:** None

## 47606 (CBI) Visual Approach Slope Indicator

Training Manager: AMA-430 Course Length: 64 hour(s)

This course provides training for technicians and engineers on VASI West Tech FA-9330, DISAN FA-9873, SEPCO FA-9458, SEPCO FA-9458B, West Tech FA-9458A, and LO1-1A Brightness Control Regulator. The course is 56 hours computer-based instruction (CBI) and 8 hours field-conducted lab with a supervised final exam. CBI subjects (192 lessons and seven advanced training aids) cover operational characteristics, assemblies, subassemblies, performance checks, maintenance, alignment, adjustment, and troubleshooting procedures. Field-conducted lab is conducted on the equipment at the field facility.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 47608 (CBI) Engine Generator Power Systems

Training Manager: AMA-430 Course Length: 280 hour(s)

This course provides training for technicians and engineers on engine generators, control panels, and automatic transfer switches. The course is 120 hours CBI and 160 hours Academy laboratory. CBI subjects include mechanical, electrical, and electronic theory of engine generator systems (to include Kohler engines) and ASCO/Kohler transfer switches. Laboratory subjects include mechanical maintenance and repair of engines (to include Kohler), electrical/electronic maintenance and repair of automatic transfer switches, and troubleshooting mechanical and electrical systems. Only for personnel with no previous engine generator training.

**Prerequisites:** None  
**And one of the following:** 44111, 44117, 47600

## 47610 (CBI) Power Distribution Systems

Training Manager: AMA-430 Course Length: 200 hour(s)

This course provides training for technicians and engineers on cable fault analysis, lightning protection, grounding, bonding, shielding, and facility electrical inspections. The course is 80 hours computer-based instruction (CBI) and 120 hours Academy laboratory. CBI subjects include cable maintenance, faults, and splicing; earth electrode, power grounding, and electronic signal ground systems; bonding, shielding, and electrical inspection techniques for raceway systems;

conductors, wiring devices, service equipment, panel boards, motors and controls; lamps and lighting fixtures; and emergency systems. The laboratory sessions apply techniques covered in the CBI portion of the course.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 47700 (CBI) Distance Measuring Equipment (DME), FA-9783

Training Manager: AMA-420 Course Length: 96 hour(s)

This course provides training for technicians on the Cardion 3 DME equipment, type FA-9783. The course is 56 hours CBI and 40 hours Academy laboratory (hands on equipment). CBI subjects include DME introduction and theory for the power distribution system; transponder; monitor, control and transfer; remote monitoring equipment; and system analysis (troubleshooting). Laboratory subjects include review of DME preventive maintenance using FAA Maintenance Order 6730.2, and alignments and corrective maintenance using TI 6780.4, the Manufacturer's Instruction book.

**Prerequisites:** 88440  
**And one of the following:** 40276, 44215, 40284

## 47701 (CBI) Second Generation VORTAC Hardware

Training Manager: AMA-420 Course Length: 208 hour(s)

This course provides training for technicians on VORTAC and RTA-2 antenna speed control equipment. The course is 3 parts: a) online CYBIS portion includes; b) CBI on DVD-CDROM; and c) 56-hour Academy lab. Online CYBIS and CBI (DVD) subjects include introduction to VORTAC and IOT screens and theory for power subsystems; VOR transmitter, goniometer, monitor and ground check; TACAN transponder, power amplifier, monitor and power supply; RTA-2 antenna speed-control unit, FCPU, and RMC-F. Lab subjects include preventive maintenance procedures from FAA Maintenance Order 6820.7B and alignments and corrective maintenance procedures from TI 6780.4. Online CYBIS lessons, CYBIS critique, CBI lessons (DVD), and resident lab are required for course completion.

**Prerequisites:** 88440  
**And one of the following:** 40276, 40284

## 47702 (CBI) Localizer - Mark 1 D/E/F

Training Manager: AMA-420 Course Length: 152 hour(s)

This course provides training for technicians on the Instrument Landing System, Wilcox Mark 1 D/E/F. The course is 104 hours CBI and 48 hours Academy laboratory. CBI subjects include block diagram and circuit diagram for all units and circuit cards. Videotape subjects include demonstrations of performance tasks. Laboratory subjects include alignment and calibration of localizer to current standards. Some lab procedures are outdoors--bring proper clothing for weather.

Requires current versions of ILS maintenance order, general maintenance order, and TI. TPMO must provide models (D/E/F) for proper registration and enrollment. This course includes an Academy lab examination.

**Prerequisites:** None  
**And one of the following:** 40233, 88220, 40283, 88257

## 47703 (CBI) Glideslope (Short) - Mark 1 D/E/F

Training Manager: AMA-420 Course Length: 64 hour(s)

This course provides training for technicians on the Instrument Landing System, Wilcox Mark 1 D/E/F glideslope. The course is 32 hours CBI and 32 hours Academy laboratory. CBI subjects include block diagrams and circuit diagrams for units and circuit cards. Laboratory subjects include alignment and calibration of glideslope to current standards. Must complete 47702 before attending this course.

This segment only teaches the difference between LOC and GS units. Requires current versions of ILS, general, and battery maintenance orders, and TI. TPMO must provide models D/E/F for proper registration. This course includes an Academy lab examination.

**Prerequisites:** 40283  
**And one of the following:** 47702, 88234

## 47704 (CBI) Mark 1 D/E/F Remote Monitor/Land Lines

Training Manager: AMA-420 Course Length: 24 hour(s)

This course provides training for technicians on the Instrument Landing System, Wilcox landline Remote monitor, and VHF RXR monitor units. The course is 16 hours CBI and 8 hours academy laboratory. CBI subjects include block and schematic diagrams of units and circuit cards. Laboratory subjects include alignment and calibration to current standards. Knowledge of basic VHF receivers is required. Requires current versions of ILS maintenance order, general maintenance order, and TI. This course includes an Academy lab examination.

**Prerequisites:** 40283  
**And one of the following:** 47702, 88234

## 47705 (CBI) Mark 1D/E ILS Marker Beacon

Training Manager: AMA-420 Course Length: 32 hour(s)

This course provides training for technicians on the Instrument Landing System, Wilcox Marker Beacon. The course is 24 hours CBI and 8 hours academy laboratory. CBI subjects include block and schematic diagrams for all units and circuit cards. Laboratory subjects include alignment and calibration of beacon to current standards. Requires current versions of ILS, general, and battery maintenance orders, and TI. The tpmo must provide models d/e/f for proper registration and enrollment. This course includes an Academy

lab examination.

**Prerequisites:** 40283  
**And one of the following:** 47702, 88234

## 47706 (CBI) ATC Beacon Indicator (ATCBI-5) Trans/Receiver Site

Training Manager: AMA-440 Course Length: 96 hour(s)

This course provides training for technicians on the Air Traffic Control Beacon Interrogator (ATCBI)-5. The course is 56 hours computer-based instruction (CBI) and 40 hours laboratory. The lab portion can be taken in the field as OJT or resident lab at the Academy. CBI and advanced training aids (ATA's) subjects include system concepts, pulse-mode generator, transmitter, receiver, stagger/detagger, side-lobe suppression and improved side-lobe suppression (SLS/ISLS), monitors, control circuits, and beacon test sets. Laboratory subjects include periodic maintenance and corrective maintenance tasks, system troubleshooting, and system performance checks.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88360

## 47708 (CBI) Capture Effect Glideslope (CEG)

Training Manager: AMA-420 Course Length: 72 hour(s)

This course provides training for technicians on a Capture Effect Glideslope (CEG) facility (not equipment-specific), using the Mark 1 only as a model. The course is 32 hours computer-based instruction (CBI) (9 lessons) and 40 hours Academy lab. CBI subjects include radiation patterns, amplitude and phase control unit, clearance transmitter, monitoring, and flight inspections. Lab subjects include operation, maintenance, calibration, fault diagnosis of the CEGS facility, and one practical examination.

**Prerequisites:** None  
**And one of the following:** 47703, 47716

## 47709 (CBI) End-Fire Glideslope (EFGS) Antenna System

Training Manager: AMA-420 Course Length: 72 hour(s)

This course provides training for technicians on the Instrument Landing System, Watts Antenna Company, End-Fire Glideslope Antenna. The course is 32 hours computer-based instruction (CBI) and a 40 hour self-paced Academy laboratory. CBI subjects include block diagram, schematic diagram, all units, and circuit cards. Laboratory subjects include alignment and calibration of an EFGS system. Some laboratory procedures are outdoors. Bring proper clothing for all weather. Current versions of ILS Maintenance Order, General Maintenance Order, Battery Maintenance Order, and TI are required. There is also one practical examination at the end of the lab portion of the course.

**Prerequisites:** 47703  
**And one of the following:** 47708, 40240, 88227

**47710 (CBI) Mark 20 Instrument Landing System (ILS)**

Training Manager: AMA-420 Course Length: 104 hour(s)  
 This course provides training for technicians on the Mark 20 ILS. The course is 40 hours computer-based instruction and a 64 hour Academy laboratory. CBI subjects include familiarization, theory of operation, signal flow, and menus on marker beacon, localizer, Farfield monitor, glideslope, RICE, and LCU. The laboratory covers maintaining, troubleshooting, and repairing the Mark 20 System and the components, and one practical examination.

**Prerequisites:** 40283  
**And one of the following:** None

**47711 (CBI/MM) Low-Level Windshear Alert Sys (LLWAS) Climatronics**

Training Manager: AMA-420 Course Length: 80 hour(s)  
 This course provides training for technicians on the LLWAS Phase 2 Climatronics, Type FA-10239. The course is 32 hours correspondence study, 8 hours computer-based exercises (CBE), and 40 hours Academy laboratory. Correspondence study subjects include LRU identification, breakdown, and system operation and maintenance. CBE subjects include system simulations and the end-of-course exam. Laboratory subjects include system alignments, performance checks, and fault isolation.

**Prerequisites:** 47504, 88440, 88441  
**And one of the following:** None

**47713 (CBI/MM) Low-Level Windshear Alert System (LLWAS/FA-10240)**

Training Manager: AMA-420 Course Length: 68 hour(s)  
 This course provides training for AF personnel on LLWAS, Type FA-10240. The course is 24 hours correspondence study, 4 hours computer-based exercises (CBE), and 40 hours Academy laboratory. Correspondence study subjects include system concepts, major and subassembly component identification, communication functions, display interpretation and characteristics, block diagrams, signal flow and paths, and the maintenance data terminal (MDT). CBE subjects include system concepts, operational checks, and block diagrams. Laboratory subjects include system operation, verification, performance, and analysis.

**Prerequisites:** 47504, 88440, 88441  
**And one of the following:** None

**47714 (CBI/MM) DME Model 1118 With ERMM**

Training Manager: AMA-420 Course Length: 80 hour(s)  
 This course provides training for technicians and engineers on the Distance Measuring Equipment (DME) ASI, Inc., Model 1118 with enhanced remote maintenance monitoring (ERMM). The course is 40 hours correspondence study with the final examination on the CBI platform and 40 hours Academy laboratory. Correspondence study subjects include theory of operation and maintenance. Laboratory subjects include alignment, maintenance checks, and fault isolation. Personnel who have already taken course 40278 should not take this course. The ERMM portion is covered in 45205 for those who have completed course 40278.

**Prerequisites:** 88440, 88441  
**And one of the following:** 44215, 40276, 40284

**47715 (CBI/MM) Mark 1 D/E/F ILS**

Training Manager: AMA-420 Course Length: 344 hour(s)  
 This course provides training for technicians, engineers, and developmental technicians on the Mark 1 D/E/F Instrument Landing System (ILS). This course is 22 hours CBI, 188 hours self-study, and 136 hours of Academy laboratory. CBI and self-study subjects include block diagrams, controls and indicators, adjustments, flight inspection, and an examination on the CBI platform. Laboratory subjects include alignment and calibration procedures for the localizer, glideslope, markers, and Remote Monitoring System.

**Prerequisites:** None  
**And one of the following:** None

**47716 (CBI/MM) Wilcox Mark 1F ILS**

Training Manager: AMA-420 Course Length: 304 hour(s)  
 This course provides training for technicians, engineers, and developmental technicians on the Wilcox Mark 1F Instrument Landing System (ILS), including localizer, glideslope, markers, and remote receivers. The course is 186 hours correspondence study, 22 hours CBE's, tests, and 96 hours Academy laboratory. Correspondence study and CBI subjects include block diagram and circuit diagram for all units and circuit cards. Laboratory subjects include alignment and calibration of localizer, glideslope, markers, and remote receiver to current standards. This course includes an Academy lab examination.

**Prerequisites:** None  
**And one of the following:** 40233, 40283, 88220, 88257

**47717 (CBI) Mark 20/20A Instrument Landing System (ILS)**

Training Manager: AMA-420 Course Length: 144 hour(s)  
 This course provides training for technicians on the Mark 20/20A ILS and Capture Effect Glideslope (CEGS) System. The course provides

40 hours computer-based instruction and 104 hours Academy laboratory. CBI subjects include familiarization, theory of operation, signal flow, and menus on Marker Beacon, localizer, FAR-Field monitor, glideslope, RICE, and LCU with a final exam. The laboratory includes maintaining, troubleshooting, and repairing the Mark 20/20A ILS and the components. There is one practical exam.

**Prerequisites:** 40283  
**And one of the following:** None

## 47802 (CBI) Radar Beacon Performance Remote System Monitor (RSM)

Training Manager: AMA-450 Course Length: 48 hour(s)

This course provides training for engineers on the Radar Beacon Performance Remote System Monitor, 880140 RSM group. The course is 30 hours computer-based instruction (CBI) and 18 hours field conducted lab. Subjects include system concepts, transponder concepts, interface w/ beacon systems/system tolerances, encoding and decoding circuits, receiver circuits, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40335, 40339, 45309, 45310, 47706

## 48024 Balanced Power Plus (BP+)

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for technicians on the International Power Machine (IPM)/Balanced Power Plus (BP+) 50-250 KVA Power Conditioning System (PCS). Subjects include theory of operation, troubleshooting, restoration, and systems procedures.

**Prerequisites:** None  
**And one of the following:** 44111, 44117

## 48094 Distance Measuring Equipment (DME) (Butler/Wilcox)

Training Manager: AMA-405 Course Length: 120 hour(s)

This course provides training for technicians on the Butler 1020 and Wilcox Model 596B/C DME ground station. Subjects include block diagrams; signal flow and schematic diagrams of the transponder, monitor, control unit, and test unit; alignment and test procedures for transponder and monitor; operation testing; hands-on troubleshooting; and fault finding on the DME.

**Prerequisites:** 44215  
**And one of the following:** None

## 48101 5960 Distance Measuring Equipment (DME), Wilcox

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training for technicians on the Wilcox 5960 Distance Measuring Equipment (DME). Lectures cover the Wilcox 5960 DME. Laboratory sessions include fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments.

**Prerequisites:** 44215  
**And one of the following:** None

## 48107 Category III Instrument Landing System (ILS)

Training Manager: AMA-405 Course Length: 120 hour(s)

This course provides training for technicians on the category III, ILS. Subjects include system theory and laboratory training on troubleshooting, alignment, and adjustments.

**Prerequisites:** None  
**And one of the following:** 40233, 44415, 47000, 40283

## 48176 Wilcox 476B/585B VHF Omnidirectional Range (VOR)

Training Manager: AMA-405 Course Length: 120 hour(s)

This course provides training for technicians on the Wilcox VOR. Lectures and laboratory exercises cover VOR theory; station block diagram; circuit analysis of transmitter, goniometer, antenna, radio-frequency (RF) phasing, monitor field detector, local control, and keyer; station alignment; and error curve analysis.

**Prerequisites:** None  
**And one of the following:** None

## 48180 Instrument Landing System (ILS) ASII

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training for technicians on the Airport Systems International, Incorporated 1100 Series ILS. Lectures include the 1100 Localizer, 1110 Glideslope, and 1130 Marker Beacon. Laboratory sessions cover fault diagnosis, performance analysis, test procedures, use of test equipment, and routine checks and adjustments.

**Prerequisites:** None  
**And one of the following:** 40233, 40283

## 48200 Mark 10 Instrument Landing System (ILS), Wilcox

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training for technicians on the Wilcox Mark 10

Instrument Landing System (ILS) equipment. Subjects include localizer, glideslope, and Marker Beacon System theory of operation through maintenance and troubleshooting at the LRU level.

**Prerequisites:** 88440  
**And one of the following:** 40233, 40283

## 48229 Exide UPS Powerware - 62.5 KVA

Training Manager: AMA-405 Course Length: 36 hour(s)

Course provides Level 1 training for technicians on Exide Uninterruptible Power Source (UPS) Powerware System 62.6 KVA. The course is 50% lecture and 50% laboratory. Subjects include theory of operation, troubleshooting, restoration, and system procedures. Power handling subassemblies are removed and their components, such as SCR and transistors, are removed, checked, and replaced. The course emphasis is on practical application. Exide Powerware Systems are installed at selected automated flight service stations (AFSS's) (approximately 30), airport surveillance radars (ASR), and air traffic control tower (ATCT) NAS facilities.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 48232 UPS Balanced Power (BP) II - Exide

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for technicians on the Exide uninterruptible power source (UPS) BP II. This course is 40% lecture and 60% laboratory. Subjects include theory of operation, troubleshooting, restoration, and system procedures.

**Prerequisites:** None  
**And one of the following:** 44111, 44117

## 48245 IBM Enterprise System (Rollout 3)

Training Manager: AMA-405 Course Length: 32 hour(s)

This course provides training for personnel responsible for maintaining and certifying the Display Channel Complex Rehost (DCCR). The course is lecture and laboratory. Subjects include the service strategy and procedures necessary to invoke diagnostic routines and fault isolate to the lowest replaceable unit (LRU).

**Prerequisites:** None  
**And one of the following:** None

## 48253 UPS-30/160 KVA Balanced Power (BP) III

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for technicians on the Uninterruptible Power Source (UPS) Powerware Plus 30-160 KVA Balanced Power

(BP III). Subjects include theory of operation, troubleshooting, restoration, and system procedures. Each student should bring a 486 laptop with math coprocessor and an interconnect cable at least 6 feet long so the software (P80-Tool) can be loaded/tested. The interconnect cable must have a 9-pin female connected to the laptop (depending on the laptop) to a 25-pin male connected to the UPS. Each student will receive a copy of P80-Tool software that would work best if it can be tested on each student's laptop during the course.

**Prerequisites:** None  
**And one of the following:** 44111, 44117

## 48262 ASII Model 1118 DME With RMM

Training Manager: AMA-405 Course Length: 56 hour(s)

This course provides training for technicians and engineers on the Distance Measuring Equipment (DME) Model 1118 with remote maintenance monitoring (RMM). The course is a combination of lecture and laboratory. Lecture subjects include operations and maintenance. Laboratory subjects include alignments, adjustments, and fault isolation.

**Prerequisites:** 44215, 88440  
**And one of the following:** 40276, 40284

## 48272 Telecommunications Management and Operations Financial Tools

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for telecommunication specialists, network planners, and budget analysts in the procedures for ordering telecommunications services. The course is 50% lecture and 50% laboratory. Subjects include Telecommunications Management and Operations (TM&O) financial tracking systems, accessing FinTrack, transferring funds, funds transfer requests status reports, TSR estimates and CC&O billing reports, IA mod status report, ACC/IA mod relationships, TSR completion report, ACC status report, and candidate FTRS report.

**Prerequisites:** None  
**And one of the following:** None

## 48273 AIDCS for Air Traffic System Specialists

Training Manager: AMA-405 Course Length: 17 hour(s)

This course provides training for technicians, engineers, SPS's and NAS managers (FS-2101's) on the Air Traffic System Interfacility Data Communications System (AIDCS). The course consists of 30% lecture and 70% laboratory. Subjects include system overview, system operations, error detection, hardware maintenance, software maintenance, and system certification.

**Prerequisites:** None  
**And one of the following:** 41705, 48238, 48239, 49266, 49267

## 48274 OASIS First-Level Maintenance Training

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for technicians on the Operational and Supportability Implementation System (OASIS) at sites where the system has been installed. The course consists of lecture and laboratory sessions. Subjects covered include identification of OASIS assemblies and subassemblies, power up/down, start over and recovery, operational performance checks, and diagnostics and fault isolation to the line replaceable unit (LRU).

**Prerequisites:** 40423, 88440, 88441  
**And one of the following:** None

## 48279 ARSR-4 Genrad/Fluke Hardware and Software

Training Manager: AMA-405 Course Length: 120 hour(s)

Hardware training covers signal flow, fault isolation, repair, test and checkout of support equipment and system-level line replaceable units (LRU's), electrostatic discharge (ESD) awareness/procedures, data/signal flow of test-set subassemblies to block-diagram level, turn-on and checkout, recognition of test-set faults, test repair and verification of selected unit under test (UUT) or serviceable UUT's, and use of test-program sets (TPS) to test UUT's. Software training covers modification of program software to incorporate circuit changes/additions for the ARSR-4 subassemblies, structure and layout of test software, modification of test program software and executive code.

**Prerequisites:** 40408  
**And one of the following:** None

## 48281 UPS 180/500 KVA Balanced Power (BP) III - Exide

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for technicians on the Exide uninterruptible power source (UPS) Powerware Plus 180/500 KVA BP III. The course is 40% lecture and 60% laboratory. Subjects include troubleshooting, restoration, and system procedures.

**Prerequisites:** None  
**And one of the following:** 44111, 44117

## 48288 PRM Software

Training Manager: AMA-405 Course Length: 120 hour(s)

This course provides training for AOS software engineers on the precision runway monitoring system. The course consists of lecture and laboratory sessions. Subjects include system overview, analyzing software errors, building site parameters, data reduction analysis, identifying false targets, and loading programs.

**Prerequisites:** 48531  
**And one of the following:** None

## 48291 Comprehensive Powerlogic System

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for technicians on operation and configuration of the Powerlogic Series 2000 circuit monitor and power meter. The course subjects are metering principles, including instrument transformers, polarities, and convection.

**Prerequisites:** None  
**And one of the following:** 44111, 47600, 44117

## 48292 UPS-180/500 Balanced Power (BP) III - Level II

Training Manager: AMA-405 Course Length: 36 hour(s)

Course provides Level II (Adv) training for technicians and engineers on Exide UPS 180/500 KVA Balanced Power (BP) III and is 50% lecture and 50% lab. The training reviews and expands on topics covered in Level I training. Advanced troubleshooting procedures are described to further enhance the user in differentiating between hardware and software problems. Training is designed for individuals who perform installation verification and full maintenance of the UPS including parallel redundant configuration. The course is also designed for individuals who provide technical support and basic training to on-site personnel.

**Prerequisites:** None  
**And one of the following:** 47600, 44111, 44117

## 48293 Quantum Series Maintenance (Modicon PIC)

Training Manager: AMA-405 Course Length: 27 hour(s)

This course provides training for technicians on how to troubleshoot and perform maintenance on systems controlled by the quantum automation series controller and associated hardware. Multi-level fault isolation and correction are featured, and emphasis will be placed on software diagnostics.

**Prerequisites:** None  
**And one of the following:** 47600, 44111, 44117

## 48296 Factorylink Electronic Control System (ECS) Basic

Training Manager: AMA-405 Course Length: 36 hour(s)

This course provides training for personnel who will be using Factorylink graphical software. This is a beginning level course that provides basic overview of Factorylink modules. At the end of the course, students will be able to design, configure, and troubleshoot a Factorylink application. Factorylink is the graphical software that will be used in the workstation of the Power Monitor and Control System (PMCS) portion of the Critical Power Distribution System (CPDS).

**Prerequisites: None**  
**And one of the following: 44111, 47600, 44117**

## 48302 Mitsubishi 2033A DDC Series UPS System

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for technicians on the Mitsubishi 2033A DDC Series Uninterruptible Power Supply (UPS) System. The course is 17 hours lecture and 23 hours laboratory. Lecture subjects include general power electronics concepts as related to the 75KVA 2033A UPS, system schematics and functionality, monitoring menu, component identification, and system operation. Laboratory subjects include troubleshooting and component disassembly and replacement.

**Prerequisites: None**  
**And one of the following: 44111, 44117**

## 48306 Modicon PIC Level 1 Programming

Training Manager: AMA-405 Course Length: 28 hour(s)

This course provides training for personnel on how to program quantum series programmable logic controllers (PLC) to include: system hardware, system configuration, and programming. Programming techniques range from basic functions to arithmetic operations and block moves using discrete input/output (I/O), as well as register and analog I/O.

**Prerequisites: None**  
**And one of the following: 47600, 44111, 44117**

## 48307 Con-Cept Programming

Training Manager: AMA-405 Course Length: 32 hour(s)

This course provides training for personnel on how to configure quantum programmable logic controllers (PLC) using Con-Cept software, set up a project, and learn to use the function block, ladder diagram, sequential functions chart, and structured text IEC editors. The student will also learn how to use the derived function block and C++ toolkit editors, as well as generate documentation of the program.

**Prerequisites: None**  
**And one of the following: 47600, 44111, 44117**

## 48311 TLS Operation and Maintenance

Training Manager: AMA-405 Course Length: 64 hour(s)

This transponder landing system (TLS) training consists of 60% lecture/discussion which presents information from the technical instruction manual (TIM); and 40% laboratory which utilizes the TLS base-station equipment, remote control unit (RCU), and maintenance interface unit (MIU). Students will use the TLS technical instruction manual, maintenance technician student guide, and student handouts.

**Prerequisites: None**  
**And one of the following: None**

## 48312 Transponder Landing System (TLS) Operator's Course

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for operators on the transponder landing system (TLS). The course is 50 percent lecture by the contractor and 50 percent hands-on training by the students. Laboratory subjects include system theory of operation, system configuration, operations checks, and adjustments. This is a non-federal system that will be located at six sites and operated and maintained by the contractor.

**Prerequisites: None**  
**And one of the following: None**

## 48314 Advanced Fault Management System (AFMS)

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for AFMS system administrators to customize, maintain and operate the Advanced Fault Management System (AFMS) at the national maintenance coordination centers (NMCC's) for bandwidth management. The course is 12 hours lecture and 12 hours laboratory. Subjects covered include start up; monitoring activity; creating automation and topology maps; execution of sets, gets, and read traps; manage alarms, display nodes and link views; and query and perform node configurations.

**Prerequisites: None**  
**And one of the following: None**

## 48317 Advanced Fault Management System (AFMS) for System Admins

Training Manager: AMA-405 Course Length: 40 hour(s)

This training is for system administrators to customize, maintain, and operate the advanced fault management system (AFMS) at the national maintenance coordination centers (NMCC) for bandwidth management. The course is 20 hours lecture and 20 hours laboratory. Subjects covered include startup, monitoring activity, creating automation and topology maps, customizing the AFMS to fit the needs of the network, execution of the sets and gets and read traps, manage alarms and display nodes and link views, query, and perform

node configurations.

**Prerequisites:** 47409  
**And one of the following:** None

## 48318 ASII Model 1119 DME With RMM

Training Manager: AMA-405 Course Length: 64 hour(s)

This equipment-specific course provides training for technicians who maintain the ASII Model 1119 High Power Distance Measuring Equipment (DME). The course is 32 hours lab and 32 hours lecture. With completion of the course, the student will be able to operate, adjust, and align the DME equipment according to manufacturers specifications. The technician will be capable of troubleshooting the DME with remote maintenance monitoring (RMM) to the module, subassembly or line replaceable unit (LRU).

**Prerequisites:** None  
**And one of the following:** 44215, 40276, 40284

## 48324 AMASS Second-Level Engineering

Training Manager: AMA-405 Course Length: 160 hour(s)

This course provides training for engineers and software maintenance personnel at aos-200 on the airport movement area safety system (AMASS). The course is 80 hours lecture and 80 hours laboratory. Lecture subjects include AMASS operation, system functions, basic system algorithms, and application software structure. Laboratory subjects include use of development and debugging tools, and modification of software.

**Prerequisites:** None  
**And one of the following:** None

## 48334 Controller Pilot Data Link Communications for Sys Admins

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for technicians and engineers on controller pilot data link communications (CPDLC) within the NAS. The course is 20 hours lecture and 20 hours lab. Lecture subjects include the role of the CPDLC in the NAS, CPDLC theory, components, messages, startup/shutdown procedures peripheral devices, CPDLC LAN/WAN, routers, switches, and GUI. Lab subjects include CPDLC system operation, monitoring, maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** None

## 48337 Promina 800 Series Operations

Training Manager: AMA-405 Course Length: 20 hour(s)

This course provides training for technical personnel who will use the operator interface to manage, monitor, and/or configure the N.E.T. Promina Multi-service Access Platform (PMAP) and Multi-service Bandwidth Manager (MBM) network. The course is 10 hours lecture and 10 hours laboratory. Subjects include usage of the N.E.T. PMAP/MBM operator interface to configure networks, manage bandwidth resources, monitor network usage, and maintain network operations by performing diagnostics and interpreting alarms and events.

**Prerequisites:** None  
**And one of the following:** None

## 48338 Promina 800 Series Manager

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for control site technical personnel who will use the Promina 800 series MAP manager as their central point of control for managing their N.E.T. Promina 800 series multi-access platforms and N.E.T. legacy nodes in their network. The course is 8 hours lecture and 8 hours laboratory. Subjects include monitoring the N.E.T. network; executing SETS and GETS from the MIB browser; read tapes from the event browser; manage alarms, display node, and link views via netscape; query and perform node configuration.

**Prerequisites:** 48337  
**And one of the following:** None

## 48339 Promina 800 Series Maintenance

Training Manager: AMA-405 Course Length: 20 hour(s)

This course provides training for network managers and technical personnel who will manage and maintain the N.E.T. Promina multi-service access platform (PMAP) and the multi-service bandwidth manager (MBM) network using the operator interface and card indicators. The course is 10 hours lecture and 10 hours laboratory. Subjects include configuring, installation, replacement, and cabling N.E.T. PMAP/MBM hardware; use and interpret N.E.T. PMAP/MBM hardware indicators and controls; correlate hardware indicators with operator interface display for purposes of troubleshooting; and to perform appropriate diagnostic tests to isolate failed circuit or system components.

**Prerequisites:** 48337  
**And one of the following:** None

## 48344 DVRS Type II

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is conducted at each site after system installation and before system commissioning. This course provides training for technicians and air traffic control personnel on DVRS, Type II. Lectures cover theory of operation and evaluations, preventative

maintenance procedures, and fault analysis. Laboratory sessions cover system operating procedures, system evaluation, routine test procedures, adjustments, and isolation of faults.

**Prerequisites:** [88440](#)  
**And one of the following:** None

## 48345 Mark 20A ILS

Training Manager: AMA-405 Course Length: 80 hour(s)

This course is for airway facilities technicians and engineers and includes the following subject areas: MK20A equipment familiarization, principles of operation, functional block diagrams, signal flow, system maintenance, corrective maintenance, periodic maintenance of the Localizer System and its subassemblies and Antenna System, periodic maintenance of the Glideslope System and its subassemblies and Antenna System, and ancillary equipment (RICE, RCSU, RCIU, and markers).

**Prerequisites:** [40283](#)  
**And one of the following:** None

## 48348 Mitsubishi 9700 Series UPS System

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for technicians on the Mitsubishi 9700 Series Uninterruptible Power System (UPS). The course consists of 12 hours lecture and 12 hours laboratory. Subjects include general power electronics concepts as related to 9700 Series UPS, system schematics and functionality, monitoring menu, component identification, system operation, troubleshooting, and component disassembly and replacement.

**Prerequisites:** None  
**And one of the following:** [44111](#), [44117](#)

## 48350 Telecommunications Service Management (TSM) Circuit Tracking

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for telecommunications specialists, budget analysts, regional engineers, and facility managers who use the Telecommunications Service Management (TSM) circuit tracking. This course is 8 hours of lecture and 8 hours of laboratory. Lecture includes introduction to the TSM Ordering System (TOS), creating a request for telecommunications service, introduction to TSR entry, introduction to communications service request entry, and agency orders. Laboratory subjects include hands-on TSM tracking activities.

**Prerequisites:** None  
**And one of the following:** None

## 48351 Telecommunications Service Management (TSM) Ordering System

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for telecommunications specialists, budget analysts, regional engineers, and facility managers who use the Telecommunications Service Management (TSM) Ordering System. This course is 8 hours of lecture and 8 hours of laboratory. Lectures include TSM circuit tracking overview, gathering data, creating a new end-to-end introduction to the treeview, associating information, working with orders and billing data. Laboratory subjects include hands-on TOS activities.

**Prerequisites:** None  
**And one of the following:** None

## 48352 Mark 20A ILS System, Delta Training

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides supplementary (difference) training for technicians who have completed the MK-20 ILS training (course 47710). The course is 8 hours of classroom instruction and 16 hours of hands-on equipment training. Lecture includes identification of differences between the MK-20 and MK20A systems. The laboratory covers troubleshooting and repair of the MK-20A system and its components.

**Prerequisites:** [47710](#)  
**And one of the following:** None

## 48356 ASDE-X Core Maintenance

Training Manager: AMA-405 Course Length: 104 hour(s)

This course provides training for technicians on the Airport Surface Detection Equipment Model X (ASDE-X) Radar System. The course is 52 hours lecture and 52 hours laboratory/walkthrough. Lecture subjects include system operation, multilateration system, surface movement radar system, remote monitoring system, maintenance, and troubleshooting. Laboratory subjects include LRU removal and replacement, maintenance, and troubleshooting.

**Prerequisites:** [40423](#), [42058](#), [44320](#), [88440](#), [88441](#)  
**And one of the following:** None

## 48357 ASII Model 2100 Category II/III ILS

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training for technicians on the ASII 2100 model ILS. Lecture includes system functional block diagram, terminal equipment, rear panel, display assembly 1A1, battery charger power supply, synthesizer assembly, power amplifier assembly localizer and glideslope, monitor CCA, RMS microprocessor CAA, transfer/recombiner drawer assembly, CE APCU drawer assembly, and remote maintenance monitor. Lab sessions cover performance

analysis, test procedures, use of test equipment, and routine checks and adjustments. Student must have knowledge in digital circuit theory microprocessor or microcontroller functional operation theory and practical ILS flight check.

**Prerequisites:** 40283, 88440  
**And one of the following:** None

## 48360 Precision Runway Monitor (PRM) Tracon

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is for technicians and engineers who maintain the Precision Runway Monitor (PRM) TRACON equipment. This course is conducted by Raytheon at field installation locations. Training includes the indicator portion of the PRM as well as maintenance of PRM hardware.

**Prerequisites:** None  
**And one of the following:** None

## 48362 MALSR With RMS

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for technicians and engineers on the Medium Intensity Approach Light System with Runway Alignment Indicator Lights (MALSR) and Remote Monitor System (RMS) manufactured by the DME Corporation. The course is 12 hours lecture and 12 hours lab. Lecture subjects include system and component description, layout and configuration, circuit description, interconnection diagrams, component operation, and detailed RMS description and operation. Lab subjects include equipment layout, configuration, component location, maintenance tasks, adjustments, system troubleshooting, and RMS operation and use.

**Prerequisites:** 44111  
**And one of the following:** None

## 48364 A+ Certification Preparation Hardware Fundamentals

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training on PC hardware and system maintenance procedures for hardware components, power supply, upgrades, networking, maintenance, and troubleshooting. This course is 20 hours lecture and 20 hours laboratory. The lab includes exercises on configuration settings, upgrade systems, configuring SCSI devices, installing printers and monitors, removing and replacing components, and troubleshooting post errors.

**Prerequisites:** None  
**And one of the following:** None

## 48365 A+ Certif. Preparation Operating Sys Fundamentals (CompUSA)

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training on installation procedures using emergency boot diskettes, managing printers, and other devices such as networking and Internet access. This course is 20 hours lecture and 20 hours laboratory. The lab exercises include installing Windows operating systems, managing Windows, operating Fdisk utility, managing system files, configuring network and Internet access, and troubleshooting the operating system errors.

**Prerequisites:** None  
**And one of the following:** None

## 48366 Network+ Certification Preparation (CompUSA)

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for the 2002 Comptia's Network+ Exam N10-002. The lecture includes a wide range of networking technologies. This course is 20 hours lecture and 20 hours laboratory.

**Prerequisites:** None  
**And one of the following:** None

## 48368 Common ARTS Mosaic

Training Manager: AMA-405 Course Length: 32 hour(s)

This course provides training for AF airway transportation system specialists on Mosaic mode operation of the ARTS-III system. The course is 12 hours lecture and 20 hours laboratory. Lecture subjects include Mosaic concepts, ACD and SMC operation, performance monitoring, CQARS concepts, and SCAP concepts. Laboratory subjects include operation of the ACD and SMC, Mosaic mode, performance monitoring, CQARS analysis, and SCAP operation.

**Prerequisites:** 42052  
**And one of the following:** 40608, 40617

## 48369 FTI Network Management & Operations (NMO) User Interface

Training Manager: AMA-405 Course Length: 20 hour(s)

This course provides instruction on the FTI application that provides information to the FAA user from the Harris Network Operations Center (NOCC) where FTI services are monitored. Topics include log-on procedures, screen features, alerts, alarms, report generation, help desk functions, and emergency procedures. Hands-on exercises will be conducted to familiarize participants with the menu options.

**Prerequisites:** None  
**And one of the following:** None

## 48370 ASDE-X Technical On-Site Representative (TOR) Training

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for ANI technical on-site representatives (TORS) for Airport Surface Detection Equipment, Model X (ASDE-X). This course is contractor conducted and is 16 hours field lecture and 8 hours field laboratory. Lecture subjects include an overview of the ASDE-X System and its subsystems, site configuration, installation requirements, installation, integration, and checkout processes. Laboratory subjects include a practical exercise/demonstration involving direct participation of the students and Sensis Corporation trainers with ASDE-X equipment.

**Prerequisites:** None  
**And one of the following:** None

## 48373 ASDE-X Core Maintenance

Training Manager: AMA-405 Course Length: 64 hour(s)

This course provides training for technicians on the baseline Airport Surface Detection Equipment Model X (ASDE-X), but does not include the radar subsystem. The course is 31 hours lecture and 33 hours laboratory. Lecture subjects include system operation; multilateration, remote monitoring, tower display and processing subsystems; maintenance; and troubleshooting. Laboratory subjects include LRU removal and replacement, maintenance and troubleshooting.

**Prerequisites:** 40423, 42058, 44320, 88440, 88441  
**And one of the following:** None

## 48375 9000NT Advanced Operations I

Training Manager: AMA-405 Course Length: 8 hour(s)

9000NT Advanced Operations I (Level 1, 2, or 3) will train the student to identify each piece of equipment and its function, start/stop and log in/out of the system, navigate through all TRAN submaps, determine the status of the modem, read alarm records, use the alarm browser to sort alarms and find modem symbols by name, alarms, and status. Additionally, the student will be able to reset the modem's symbol, monitor EIA signal levels, change the name of a modem to comply with the FAA naming conventions, put a modem or line into loop for testing, manually initiate and terminate dial restoral for a modem and take a snapshot of the current submap and store it for future reference.

**Prerequisites:** 47411  
**And one of the following:** None

## 48376 9000NT Advanced Operations II (Level 2 Users)

Training Manager: AMA-405 Course Length: 8 hour(s)

9000NT Advanced Operations II (Level 1 or 2 access). This course will train students to explain fundamentals of network control, add devices and lines to the 9000 OMS database, upload modem configurations, check and modify various modem parameters, export and import modem configurations and modify or create symbols to execute commands. Additionally, the student will be taught to create additional submaps for site customization, to bypass the 9000 OMS window and send MB values to a modem via the SNMP MIB browser, to isolate basic problems with the 9000 OMS, monitor background processes, and evaluate network control performance.

**Prerequisites:** 47411, 48375  
**And one of the following:** None

## 48377 9000NT Network Administration (Level 1)

Training Manager: AMA-405 Course Length: 8 hour(s)

9000NT Network Administration (Level 1 access). Level 1 users will be able to hide Internet maps to limit access, modify alarms, create a menu selection via a MIB application, perform hard drive backups and restorals. Students will also learn to backup, restore, and map topology files, add new users to the NT systems, and assign user levels.

**Prerequisites:** 47411, 48375, 48376  
**And one of the following:** None

## 48378 9000NT Basic Operations (Level 4)

Training Manager: AMA-405 Course Length: 8 hour(s)

9000NT Basic Operations (Level 4 access). This course is for users who have modem monitoring responsibilities. The users will be able to navigate through all the modem submaps; determine modem status; start/stop and log in/out of the system, and read alarm records. The user will also be able to find modem symbols; monitor EIA signal levels RTS, CTS, DTR, DCD, and RSQ; gather, graph, display and print modem and CQMS and line CQMS statistics; archive alarm records, and print reports.

**Prerequisites:** 47411  
**And one of the following:** None

## 48379 ATOP Overview and Operations

Training Manager: AMA-405 Course Length: 200 hour(s)

This course is for NAS/NOM and computer specialist personnel and is prerequisite for hardware and software maintenance personnel at Oceanic Centers. This course is 50% lecture and 50% lab. Lecture provides instructor-led classroom training in the operational theory and practical management of the Ocean 21 System. This includes normal

operation, monitor and control, certification and problem diagnosis and recovery procedures for the equipment, software and data that make up the Ocean 21 System. Lab exercises will serve to reinforce the subject matter presented in lecture, while providing hands-on experience.

**Prerequisites:** None  
**And one of the following:** None

**48380 ATOP Site S/W Maintenance**

Training Manager: AMA-405 Course Length: 160 hour(s)

This course is for SPS and AOS personnel at Oceanic Centers. The course is 50% lecture and 50% lab. Lecture provides instructor-led classroom training in the operational theory and maintenance of the Ocean 21 System with emphasis on the management of system archive data, security data, adaptation data, and local releases of developed and COTS software. Lab exercises will serve to reinforce subject matter presented in lecture while providing hands-on experience.

**Prerequisites:** 48379  
**And one of the following:** None

**48381 ATOP Hardware Maintenance**

Training Manager: AMA-405 Course Length: 120 hour(s)

This course is for hardware technicians and SPS personnel at Oceanic Centers. The course provides instructor-led classroom and laboratory training in the operational theory and maintenance of the Ocean 21 System. This includes normal operation, monitor and control, problem diagnosis and recovery procedures for the equipment, software and data that comprise Ocean 21, emphasis on corrective maintenance procedures for all elements of the system to LRU level including fault isolation, and diagnosis, problem resolution, and removal and replacement of FRU and LRU components. Lab exercises will serve to reinforce subject matter presented in lecture while providing hands-on experience.

**Prerequisites:** 48379, 88440, 88441  
**And one of the following:** None

**48382 ATOP 2nd Level Engineering**

Training Manager: AMA-405 Course Length: 200 hour(s)

This course is for 2nd level personnel at the William J. Hughes Technical Center. The course consists of 50% lecture and 50% lab. Lecture provides instructor-led classroom training in the operational theory and engineering support requirements of the Ocean 21 System. The full range of system functionality is addressed, including all hardware, software, data and communications components, and the procedures for advanced problem analysis and resolution. Lab exercises will serve to reinforce subject matter presented in lecture while providing hands-on experience.

**Prerequisites:** 48380, 48381  
**And one of the following:** None

**48384 ARTSIE Stand Alone Tower Display System (SATDS) Maintenance**

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training for airway facilities technicians, engineers, specialists, and computer operators on the SATDS system maintenance. The course is 40 hours field-conducted lecture and 40 hours field-conducted laboratory. Lecture subjects include a basic introduction to SATDS, system theory and operation, system components, and system software. Lab subjects include software downloading to an SATDS. Alignment and repair of a general digital flat screen monitor, initializing the MVME 2700 single-board computer, preventive maintenance, and system troubleshooting.

**Prerequisites:** 40423  
**And one of the following:** None

**48385 Direct Current (DC) BUS System**

Training Manager: AMA-405 Course Length: 32 hour(s)

This course provides detailed technical training consisting of the theory of operation of a Vortex Power System, VRLA battery maintenance, review of proper test procedures, adjustments and calibrations, troubleshooting techniques, preventive maintenance, and the theory of operation and application scenarios for the LMS 1000 Monitoring System.

**Prerequisites:** None  
**And one of the following:** 44111, 44117, 47600

**48386 Sensis Surface Movement Radar Improved (SMRI) for ASDE-X**

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for the technician on the Sensis Surface Movement Radar Improved (SMRI) Subsystem portion of the ASDE-X. Training is 9 hours lecture and 15 hours laboratory. Lecture subjects include transmitter/receiver, antenna, and radar processor theory and operation. Labs include LRU removal and replacement, maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40643, 48373

**48387 Raytheon Surface Movement Radar (SMR) for ASDE-X**

Training Manager: AMA-405 Course Length: 32 hour(s)

This course provides training for the technician on the Raytheon Surface Movement Radar (SMR) Subsystem portion of the ASDE-X. Training is 13 hours lecture and 19 hours laboratory. Lecture subjects include the transmitter/receiver, antenna, and radar processor theory and operation. Labs include LRU removal and replacement, maintenance, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** 40643, 48373

**48388 Operational Support Facility (OSF) Radar Gateway (RGW)**

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for operational support facility (OSF) personnel on common ARTS software with MOSAIC functionality. Lecture is 21 hours and subjects include an overview of the MOSAIC functionality, changes to the operational software and changes to site adaptation. Laboratory exercises are 19 hours, uses actual system equipment, and includes changes in system operation and building a site adaptation file.

**Prerequisites:** 42062  
**And one of the following:** None

**48531 Precision Runway Monitor (PRM) Hardware Maintenance**

Training Manager: AMA-405 Course Length: 160 hour(s)

This course provides training for technicians on the removal and replacement of the line replaceable units (LRU) for PRM systems. Subjects cover physical and functional characteristics; theory of operation; periodic maintenance tasks; corrective maintenance tasks (including troubleshooting and fault isolation); removal and replacement procedures for all system LRUs; and procedures for measuring performance parameters to support system certification.

**Prerequisites:** None  
**And one of the following:** None

**48537 TIMS Overview for TM&O Officers**

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training on the Telecommunications Information Management System (TIMS) for personnel who require access to administrative or operational telecommunications data. Lecture subjects include database structure; development, release, and deployment status of front-end applications; and general navigation techniques. Lab includes TQT (TM&O query tool), TFT (financial tracking), TLC (Lincs CDRL), TOS (ordering system), TCAB (cost allocation and billing), TIS (TM&O information system), and TCT (circuit tracking for operations control centers).

**Prerequisites:** None  
**And one of the following:** None

**48538 TM&O Acquisition and Management Tools**

Training Manager: AMA-405 Course Length: 32 hour(s)

Lectures include telecommunication management & operations overview, query tools, ordering system, financial and circuit tracking; provides tools for network planners, budget & performance analysts, communication specialists & circuit engineers to create, manipulate, & track requests; conduct provisioning/circuit tracking activities; & order telecommunications services/equipment. Lab participants apply tools in a simulated environment to create orders, including steps to complete requests for telecommunications services, develop implementation plan, create cost estimates, & complete orders. Students will view/edit/create end-to-end connectivity data to maintain & track inventory.

**Prerequisites:** None  
**And one of the following:** None

**48600 Airway Facilities - Collegiate Training Initiative (AF-CTI)**

Training Manager: AMA-405 Course Length: 957 hour(s)

This course was created to provide regions with current equivalencies for personnel who have completed the AF-CTI Intern Program (formerly Coop), the upward mobility program or graduates from an approved AF-CTI college who were hired under direct hire authority. Approved colleges have been assessed to prepare employees (current and new) for entry into the FAA Academy's concepts courses. All AF-CTI approved college curricula's certified by FAA Academy personnel. Curriculum (as a min) includes math equivalency to the trig level, electronic theorems, applications in AC and DC circuits (transient analysis, solid state devices, and digital logic theory) and basic computer applications.

**Prerequisites:** None  
**And one of the following:** None

**49028 Microwave Landing System (MLS) FAR-171 Demo (Bendix)**

Training Manager: AMA-405 Course Length: 80 hour(s)

This course provides training on the demonstration FAR-171 MLS produced by Allied-Signal Aerospace Company, Bendix Communication Division. Subjects include MLS concepts, equipment theory, and on-site periodic maintenance and troubleshooting of the MLS to the lowest replacement unit (LRU).

**Prerequisites:** 44012  
**And one of the following:** 44415, 44013

## 49040 DOD/AF Sony/UNIX Introduction

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for DOD personnel on the Sony Digital Display Monitor, DDM2800. The course is 12 hours Academy lecture, 12 hours Academy lab, and 16 hours computer-based exercises (CBE). Lecture subjects include an introduction, system operation, UNIX, and display alignment. Laboratory subjects include alignment, using the digital remote controller, diagnostics, and repair. CBE subjects include training on Sun Solaris.

**Prerequisites: None**  
**And one of the following: None**

## 49044 Precision Runway Monitor (PRM) Type C TRACON

Training Manager: AMA-405 Course Length: 40 hour(s)

The course is designed for maintenance technicians and engineers. Lecture 11 hours covers the Precision Runway Monitor (PRM) Type C System T/R TRACON equipment. The lecture includes Radar Display Subsystem, LAN, confidence and performance monitoring subsystem (TRACON) only, and record and playback subsystem. The laboratory section 29 hours consists of perform fault isolation using the PRM status display, remove, replace and alignment procedures for the PRM Type C TRACON site.

**Prerequisites: None**  
**And one of the following: None**

## 49045 Precision Runway Monitor (PRM) Type C T/R Site

Training Manager: AMA-405 Course Length: 120 hour(s)

This course is designed for maintenance technicians and engineers. Lecture (35 hours) covers the Precision Runway Monitor (PRM) Type C System T/R site equipment. This equipment includes the Beacon Radar Subsystem (brs) LAN, confidence and Performance Monitoring Subsystem (T/R site only), record and playback subsystem (T/R site recorder only) and system support equipment. The lab (85 hours) consists of remove and replace procedures, alignment procedures and fault isolation using the PRM status display.

**Prerequisites: None**  
**And one of the following: None**

## 49046 STARS Lite AF Maintenance

Training Manager: AMA-405 Course Length: 24 hour(s)

This course is for technicians, engineers, Technical Center personnel, and developmental technicians. This course is 24 hours out-of-agency training with 11 hours lecture and 13 hours lab. Lecture subjects include STARS lite, maintenance operation, preventive and corrective maintenance. Laboratory subjects include maintenance

operation and preventive and control maintenance.

**Prerequisites: None**  
**And one of the following: None**

## 49248 S/390 Hardware Management Console Operation

Training Manager: AMA-405 Course Length: 24 hour(s)

description to be added at a later date.

**Prerequisites: None**  
**And one of the following: None**

## 49266 MS-ODL Software/Automation

Training Manager: AMA-405 Course Length: 16 hour(s)

This course provides training for software and automation specialists in the operations and functions of the Multi-Sector Oceanic Data Link (MS-ODL). Lecture and laboratory exercises use the MS-ODL in a simulated environment to cover system overview, software maintenance, and data reduction and analysis.

**Prerequisites: None**  
**And one of the following: None**

## 49267 MS-ODL for NAS/NOM and Hardware

Training Manager: AMA-405 Course Length: 24 hour(s)

This course provides training for NAS/NOM and hardware maintenance specialists in the operation and maintenance procedures required to certify the Multi-Sector Oceanic Data Link (MS-ODL). Lecture and laboratory exercises use the MS-ODL in a simulated environment for system overview, hardware maintenance, and status monitoring.

**Prerequisites: 41705**  
**And one of the following: None**

## 49268 MS-ODL for Computer Operators

Training Manager: AMA-405 Course Length: 12 hour(s)

This contractor developed and administered, field-conducted course is designed to train computer operators in the operation and functions required to perform computer operator duties on the Multi-Sector Oceanic Data Link (MS-ODL). The course consists of classroom lecture and laboratory exercises using the MS-ODL in a simulated environment. Subject matter includes system overview, monitor setup, and status monitoring.

**Prerequisites:** None  
**And one of the following:** None

## 49269 IBM S/390 Parallel Sysplex Operations and Recovery

Training Manager: AMA-405 Course Length: 40 hour(s)

This course provides training for systems performance specialists (SPS), NAS area specialists and operations managers (NAS/NOM), and hardware maintenance technicians for the Host Computer System. The course is 60% lecture and 40% hands-on exercises and trains the student in the 9672/9674 parallel sysplex environment. The student will learn set up and operating procedures for the 9672 hardware management console (HMC), gain in-depth problem determination skills, practice enhanced sysplex operations including the coupling facility, and utilize recovery capabilities provided by the S/390 parallel transaction server and the 711-based ES/9000.

**Prerequisites:** None  
**And one of the following:** None

## 49270 ARSR-1/2 Radar Evaluation

Training Manager: AMA-405 Course Length: 64 hour(s)

This course, which has both lecture and lab, will cover SSR/DMTI theory of operation, major subassemblies, checks on power supply, MDS, RF monitor levels, STC recording and adjustments.

**Prerequisites:** None  
**And one of the following:** None

## 49271 FPS-20 Radar Evaluation

Training Manager: AMA-405 Course Length: 64 hour(s)

This course, which has both lecture and lab, will cover SSR/DMTI theory of operation, major subassemblies, checks on power supply, MDS, RF monitor levels, and STC recording and adjustments.

**Prerequisites:** None  
**And one of the following:** None

## 49275 ECG/DARC for Non/NAS Specialist

Training Manager: AMA-470 Course Length: 24 hour(s)

This course is for NAS managers on the ECG/DARC equipment/eBUS software. This course is 4 hours OAT and 20 hours Academy laboratory. Lecture includes a review of ECG/DARC overview course, radar data processing functions, and problem determination. Laboratory covers practical application of tasks associated with each of the aforementioned ECG/DARC overview course and system security, and problem determination. Final exam covers entire course.

**Prerequisites:** 40447  
**And one of the following:** None

## 49276 ECG/DARC for Software Specialist

Training Manager: AMA-470 Course Length: 120 hour(s)

This course is for SPSS and technical center personnel on ECG equipment/eBUS software. The course is 60 hours OAT and 60 hours Academy laboratory. Final exam covers the entire course.

**Prerequisites:** 40449  
**And one of the following:** None

## 49277 ECG/DARC Overview for ATSS Hardware Maintenance

Training Manager: AMA-470 Course Length: 40 hour(s)

This course is for techs & SPSS on ECG/DARC equipment/eBUS software. The course is 20 hrs OAT & 20 hrs Acad lab. Lecture covers radar data processing functions, hardware changes to ECG & DSR to implement DARC replacement, new connection of WARP to backup channel, WMSU interface to ECG, procedures to control & operate DARC replacement FM the MWS, SWS & DARC M&C, SMC display format & functionality to include RTQC & EQARS msgs, & MWS graphical user screen changes, operation of RAID-1 & ZIP250 storage devices. Lab covers practical application of all the above lecture topics, system security, & problem determination within the backup channel. Final exam covers entire course.

**Prerequisites:** 40448  
**And one of the following:** None

## 49300 UNIX Essentials Featuring Solaris

Training Manager: AMA-405 Course Length: 32 hour(s)

This course is for ATSS having maintenance responsibility for one of the assigned prerequisites. This course provides instructions on using components of the desktop system and command line features and help resources, managing and viewing files and directories, changing Solaris directory contents, and creating and modifying files. Also included are instructions on basic file permissions, controlling the user work environment, and using commands within the Korn shell. Skills gained include how to perform basic process and job control, archive files and create archives, compress, view and uncompress files and to perform remote file transfers.

**Prerequisites:** None  
**And one of the following:** 40441, 40432, 40437, 47428

## 49301 Intermediate System Administration for Solaris

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is for ATSSS having maintenance responsibility for one of the assigned prerequisites. This course covers managing file systems, installing software, and performing system and user boot procedures and security administration. Also includes managing peripherals, processes (e.g., backup and restore), COMM links, and format local disk devices. Other subjects are mount and unmount different types of file systems, perform package and patch administration, using boot programmable read-only memory (PROM) commands, and changing non-volatile random access memory (NVRAM) parameters.

**Prerequisites:** 49300  
**And one of the following:** 40432, 47428

## 49302 Advance System Administration for Solaris

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is for ATSSS having maintenance responsibility for one of the assigned prerequisites. This course covers the necessary knowledge and skills to perform network basis, manage virtual file systems and core dumps, manage storage volumes, control access and configure system messaging, setup naming services, and installation procedures.

**Prerequisites:** 49301  
**And one of the following:** 40432, 47428

## 49303 Sun System Fault Analysis Workshop

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is for ATSSS having maintenance responsibility for one of the assigned prerequisites. This course covers how to differentiate and repair selected hardware, system administration, and software problems, use of an organized total system approach for fault analysis, isolate and repair selected network, port and printer faults. Recognize and repair system administration problems and mistakes. Use SunSolve™ and other Sun fault isolation facilities. Recognize and patch selected operating system (OS) problems, load, execute, and interpret system error messages and analyze system dumps, crashes, and hangs.

**Prerequisites:** 49302  
**And one of the following:** 40432, 47428

## 49304 Sun Fire 280 & V1280 Administration & Maintenance

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is for ATSSS having maintenance responsibility for the assigned prerequisite. This course covers the basic architecture for the Sun Enterprise 1280 server. Students will troubleshoot the servers to the FRU level using offline and online diagnostics to isolate faulty components from the active 1280 server configuration, install

and configure hot-swappable system components including CPU/memory boards, I2 repeater boards, internal disk drives, PSU's and individual fans, and perform remote maintenance and administrative tasks on the 1280 server using LOM shell and utility commands.

**Prerequisites:** 49303  
**And one of the following:** None

## 49305 Desktop System Maintenance

Training Manager: AMA-405 Course Length: 40 hour(s)

This course is for ATSSS having maintenance responsibility for one of the assigned prerequisites. This course covers installing various desktop systems, associated peripherals, verifying voltages are within tolerance, describe system power-on sequence, system boot sequence, purpose of forth toolkit commands, selecting the correct diagnostic tool for a specific problem, activate and configure all available diagnostic tools, interpret results of diagnostic tool output, identify, isolate, and describe correct repair for system failure to the FRU level, functional characteristics of Openboot™ PROM architecture, install interface cards, simulate a FSCH repair, run disk inquiry commands, and a

**Prerequisites:** None  
**And one of the following:** 47428, 40432

## 55059 OSHA 29CRF 1960.20, Emergency Exit Routes in ATC Towers

Training Manager: ANS-500 Course Length: 2 hour(s)

This vendor-developed course provides training for air traffic control and airway facilities personnel on requirements for ATC towers with one means of exit. The course consists of a lesson plan including handouts, train-the-trainer workbook, employee handbook, video-based training, and end-of-lesson test.

**Prerequisites:** None  
**And one of the following:** None

## 64000 (IVT) NAS Overview for MCC Specialists

Training Manager: AMA-480 Course Length: 40 hour(s)

This course provides breadth training for technicians, engineers, and NAS managers on the National Airspace System. The course is 100% interactive-video teletraining. Subjects include the functional and operational characteristics of equipment, systems, and services which comprise the NAS, including emphasis on interrelationships and dependencies of NAS systems and services.

**Prerequisites:** None  
**And one of the following:** None

## 88000 C1 - Basic Communications Equipment

Training Manager: AMA-410 Course Length: 2 hour(s)  
Bypass for 47504. Open book. Study reference is manual 47504.  
The exam covers audio principles, control systems, transmitters, and receivers.

**Prerequisites: None**  
**And one of the following: None**

## 88007 Recorders (C2)

Training Manager: AMA-410 Course Length: 1 hour(s)  
Bypass exam for 44006. Open book. Study References are Manufacturer's Instruction Manual and Manual 44006. The exam covers tape-drive systems, record and reproduce head theory, general recording theory, magnetic erasure, magnetic bias, and magnetic theory.

**Prerequisites: None**  
**And one of the following: None**

## 88009 Runway Visual Value (RVV)

Training Manager: AMA-420 Course Length: 1 hour(s)  
Bypass for 40213. Open book. Study reference is manual 40252-1.  
The exam covers transmissometer projector, receiver amplifier, and graphic recorder.

**Prerequisites: None**  
**And one of the following: None**

## 88011 UVDF (Doppler DF) (C6)

Training Manager: AMA-410 Course Length: 3 hour(s)  
The exam covers vacuum tube concepts, receiver fundamentals, antenna principles, indicator principles, dopler theory, and binary counter concepts.

**Prerequisites: None**  
**And one of the following: None**

## 88014 RVR (SSR, FA-7861) (C8)

Training Manager: AMA-420 Course Length: 2 hour(s)  
The exam covers signal data converter and indicator. This exam is for mailout or on-line use.

**Prerequisites: None**  
**And one of the following: None**

## 88016 BUEC Remote Site (C10)

Training Manager: AMA-410 Course Length: 3 hour(s)  
The exam covers control circuits and BUEC transceivers. This exam is for mailout or on-line use only.

**Prerequisites: None**  
**And one of the following: None**

## 88017 BUEC - ARTCC (C11)

Training Manager: AMA-410 Course Length: 2 hour(s)  
Bypass for course 47501. Closed book. Study References are manufacturer's instruction manual, manual 47501, and manual 47500.  
The exam covers remote control group, tone generator, remote link tester, and audio transfer.

**Prerequisites: 88016**  
**And one of the following: None**

## 88022 Tasker 500 RVR (Computer Only) (C15A)

Training Manager: AMA-420 Course Length: 3 hour(s)  
The exam covers logic circuits, signal data converter, alarm circuits, and power supplies. This exam is for mailout or on-line use.

**Prerequisites: None**  
**And one of the following: None**

## 88023 Low-Level Wind Shear Alert System (C16)

Training Manager: AMA-420 Course Length: 2 hour(s)  
The exam covers general system concepts, central station, remote station, tower display, and schematic reading. This exam is available mailout and online.

**Prerequisites: None**  
**And one of the following: None**

## 88024 VHF Direction Finder FA-9964 (C17)

Training Manager: AMA-410 Course Length: 2 hour(s)  
Bypass for course 40257. Open book. Study reference is manual 40257. The exam covers system gain, system orientation, remote unit and operation, local unit, antenna, and built-in test equipment (BITE).

**Prerequisites: None**  
**And one of the following: None**

## 88025 Magnasync/Moviola High Capacity Voice Recorder

Training Manager: AMA-410 Course Length: 2 hour(s)

Bypass for 43010. Open book. Study References are specialist operation and maintenance instruction manuals and specialist master synchronizer operation instruction manual. The exam covers the theory of operation and preventive and corrective maintenance procedures of 60-channel Magnasync high capacity voice recorder.

**Prerequisites:** None  
**And one of the following:** None

## 88026 Low-Level Wind Shear Alert System Climatronics

Training Manager: AMA-420 Course Length: 2 hour(s)

Bypass for 47711 (FA 10239 System). Closed book. Study references re 6560.13B, Section II, Weather Equipment Maintenance and 6560.16A, Manufacturer Instruction Mook (MIB). The exam covers all phases of the LLWAS System including central control unit, remote station, local controller display, centerfield wind display, anemometer.

**Prerequisites:** None  
**And one of the following:** None

## 88032 Statistical Multiplexers

Training Manager: AMA-470 Course Length: 2 hour(s)

This exam covers the theory of operation and preventative and corrective maintenance procedures for the DCX-808.

**Prerequisites:** None  
**And one of the following:** None

## 88033 Direct Access Radar Channel (DARC) Operations

Training Manager: AMA-470 Course Length: 2 hour(s)

This exam covers an overview of DARC.

**Prerequisites:** None  
**And one of the following:** None

## 88034 RCL System Terminal and Repeater Common Equipment (C27)

Training Manager: AMA-440 Course Length: 5 hour(s)

This exam covers the concepts, operation, and maintenance of the electronic assemblies and subassemblies that are utilized at both RCL

terminal and repeater facilities, to include an introduction/overview of the RCL system, the AT&T Lineage 2000 power plant, the Granger Direct-To-Line (DTL) 7300 Multiplexing System, the AT&T FR8 Microwave Radio System, the RCL orderwire/ANMS service channel equipment, and the AT&T Acorn network control system satellite telemetry unit.

**Prerequisites:** None  
**And one of the following:** None

## 88035 ICSS Type II Litton (C28)

Training Manager: AMA-410 Course Length: 4 hour(s)

This concepts exam covers the theory of operation of all major subsystems of the Litton Type II ICSS. Subject areas covered by the exam include terminology/calling procedures, position modules, module controller, TDM concepts, common controller, position controller (POSCO), radio controller (RADCO), RTQC/FDE/MUX/MRT, Telco terminology, trunk controller (TRUCO), and monitor controller.

**Prerequisites:** None  
**And one of the following:** None

## 88038 ICSS Model 3080 RDVS (C31)

Training Manager: AMA-410 Course Length: 2 hour(s)

This concepts exam covers the theory of operation of the Litton Rapid Deployment Voice Switch (RDVS). Subject areas covered by the exam include terminology familiarization and calling procedures, position modules, module control unit (MCU), power distribution, common elements, position control unit (PCU), radio control unit (RCU), Telco terminology, trunk control unit (TCU), and QCT/CCT.

**Prerequisites:** None  
**And one of the following:** None

## 88040 VSCS Hardware Test 1 (C33A)

Training Manager: AMA-410 Course Length: 8 hour(s)

This is the first of three exams that cover the Voice Switching and Control Subsystem (VSCS) Hardware, Type FA-10500. Satisfactory completion of all three exams is required to bypass course 40272 or 48171. Subjects covered in this exam include system architecture, maintenance position equipment subsystem operation, and control subsystem DMC operation and maintenance.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

## 88041 VSCS Hardware Test 2 (C33B)

Training Manager: AMA-410 Course Length: 8 hour(s)

This is the second of three exams that cover the Voice Switching and Control Subsystem (VSCS) Hardware, Type FA-10500. Satisfactory completion of all three exams is required to bypass course 40272 or 48171. Subjects covered in this exam include switching subsystem architecture, switching subsystem preventive and corrective maintenance, and system interconnect subsystem configuration and maintenance.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

## 88042 VSCS Hardware Test 3 (C33C)

Training Manager: AMA-410 Course Length: 8 hour(s)

This is the third of three exams that cover Voice Switching and Control Subsystem Hardware, Type FA-10500. Satisfactory completion of all three exams is required to bypass course 40272 or 48171. Subjects covered in this exam include VCET hardware, VSCS operational procedures, system-level troubleshooting, and Tandem.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

## 88043 Radio Control Equipment (C34)

Training Manager: AMA-410 Course Length: 3 hour(s)

This exam covers the radio control equipment (RCE). The exam covers RCE functions, operational modes, slot/node addressing, drop/monitor access jacks, system interface cabling, I/O mapping, MDT menu items and passwords, run-time database correlation, query messages, configuration and firmware file management, user interface operations, troubleshooting, and Centralized Maintenance System (CMS) overview.

**Prerequisites:** None  
**And one of the following:** None

## 88044 VSCS Overview Test 1 (C35a)

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam, with test 2, tests theory of operations on the VSCS Communications Equipment Type FA-10500. Subject areas include electrostatic discharge, VSCS System manual, VSCS System architecture, computer software configuration items, maintenance concepts and work station operation, monitor system status, fault isolation, reconfiguration, voice channel testing, tape management, and user interface operations. See AF ECC Catalog for study references. CBI terminal with VSCS electro-static discharge (ESD) courseware is available. Both exams must be completed satisfactorily to be equivalent to course 40289.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

## 88045 VSCS Overview Test 2 (C35b)

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam, with test 1, tests theory of operations on the VSCS Communications Equipment, Type FA-10500. Subject areas include user interface operations; A/G operations; G/G operations; VDM utilities screen and functions; map build design and database theory; VSCS System reconfiguration; supervisory recorder operations; general operational procedures, equipment controls and indicators; system startup and shutdown; VSCS system-level troubleshooting concepts; and monitor system status. See AF ECC Catalog for study references. CBI terminal with VSCS electro-static discharge (ESD) courseware is available. Both exams must be completed satisfactorily to be equivalent to course 40289.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

## 88046 VSCS Site Software Maintenance Test 1 (C36A)

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam, with tests 2 and 3, tests theory of operation on the Voice Switching and Control System (VSCS) site software. Subject areas include physical and functional characteristics and subsystem interrelationships, software architecture, control subsystem, various Tandem capabilities and functions, Guardian 90 Operations, Tandem CLX computer operations and concepts, and computer system problem resolution methodologies. See AF ECC Catalog for study references. CBI terminal with VSCS electro-static discharge (ESD) courseware is required. All three exams must be completed satisfactorily to be equivalent to courses 40273.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

## 88047 VSCS Site-Software Maintenance Test 2 (C36B)

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam, with tests 1 and 3, test theory of operations on the VSCS site software. Subject areas include TMF hardware and components; system management functions; Tandem hardware/software architecture and Tandem system management functions; common operations tasks; task features; software decomposition; on-line processing; CSCI-6 components; subvolumes and files; TMF database protection; Tandem file and disk management functions; SysGen requirements and procedures; TAACL directories and segments. See AF ECC Catalog for study references. CBI terminal with VSCS electro-static discharge (ESD) courseware is required. All three exams must be completed satisfactorily to be equivalent to 40273.

**Prerequisites:** 47012  
**And one of the following:** 44013, 44020

**88048 VSCS Site Software Maintenance Test 3 (C36C)**

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam, with tests 1 and 2, test the theory of operations on the VSCS site software. Subject areas include site and depot-level maintenance actions; voice channel testing; logon/logoff operations; various status screens; system event messages/fault characteristics; Le Mode transitions; A/G switchover; fault isolation and reconfiguration; tape maintenance functions; position functionality; troubleshooting procedures; facility reconfiguration; system config database; system startup/shutdown; and software processes/exceptions. See AF ECC Catalog for study references. CBI terminal with VSCS electro-static discharge courseware required. All three exams must be completed satisfactorily to be equivalent to 40273.

**Prerequisites:** 44013, 47012  
**And one of the following:** None

**88049 Enhanced Tower Voice Switch (ETVS) (C37)**

Training Manager: AMA-410 Course Length: 3 hour(s)

This exam covers the Enhanced Tower Voice Switch (ETVS) System to include position modules, position operation, system busses, block diagrams, central rack cards, power system, configuration and control system, SCT operation, system troubleshooting, and card alignment.

**Prerequisites:** None  
**And one of the following:** None

**88050 Nexcom Multimode Digital Radio (MDR) Analog (C38)**

Training Manager: AMA-410 Course Length: 4 hour(s)

The exam questions are based on the enabling objectives of the MDR CBI course design guide (CDG). It is a self-study of the MDR maintenance data terminal (MDT) software operation. A number 2 pencil for marking the answer selection is required, if the test is administered via written material.

**Prerequisites:** None  
**And one of the following:** None

**88051 CM-300 Series UHF Radio System (C39)**

Training Manager: AMA-410 Course Length: 4 hour(s)

The exam questions are based on the enabling objective of the CM-300 Series UHF Radio System CBI course design guide (CDG). There are three versions of this exam with 38 questions in each version. The exam is open book.

**Prerequisites:** None  
**And one of the following:** None

**88100 Electrical Principles (E1)**

Training Manager: AMA-430 Course Length: 3 hour(s)

The exam covers magnetic theory; current, voltage, and power; resistance; AC; rectifier, battery and generator; transformers; relays; P factor and phase; and national electric code. This exam is for mailout only.

**Prerequisites:** None  
**And one of the following:** None

**88104 ALS (E4)**

Training Manager: AMA-430 Course Length: 4 hour(s)

The exam covers visual landing aids systems. It is subdivided as follows: general theory, 20 questions; Hevi duty also substation, 10 questions; Westinghouse ALS substation, 10 questions; and GE ALS substation, 10 questions. This exam is for mailout or on-line use.

**Prerequisites:** 88100, 88103  
**And one of the following:** None

**88105 VASI (E5)**

Training Manager: AMA-430 Course Length: 4 hour(s)

The exam covers maintenance and installation of VASI Systems FA-101-A, FA-8148, FA-9330, FA-9458, FA-9458A, and FA-9458B. This exam is for mailout or on-line use.

**Prerequisites:** 88100  
**And one of the following:** None

**88107 MALSR/RMS and REIL/RMS (E11)**

Training Manager: AMA-430 Course Length: 3 hour(s)

This exam tests theory of operations of the MALSR with remote monitoring subsystem (RMS)(MALSR-AVW, Type FA-10290) and the REIL with RMS (REIL-DME, Type FA-10264). Subject areas include FAA Order 6850.5C, REIL components (individual control cabinet, control cabinet monitor, RMS, intensity control, and trigger generation) and MALSR components (individual control cabinet, intensity control, trigger generation, and RMS).

**Prerequisites:** None  
**And one of the following:** 44111, 47600

**88108 Exide Uninterruptible Power Supply (UPS) (E8)**

Training Manager: AMA-430 Course Length: 2 hour(s)

The exam covers theory of the Exide UPS inverter, rectifier/charger, static switch, battery bank, interface panels, logic boards, and operating procedures. This exam is online only.

**Prerequisites:** 88100  
**And one of the following:** None

**88112 Dual Mode ALSF-II (Godfrey) (E10)**

Training Manager: AMA-430 Course Length: 4 hour(s)

The exam covers concepts of dual mode approach light systems, equipment installation, adjustment procedures, maintenance practices, system circuit analysis, the high voltage input and output cabinets, constant current regulators, system controls, monitors, and the sequenced flashing lights.

**Prerequisites:** None  
**And one of the following:** None

**88113 Kohler Power Systems, Text 1 (E12a)**

Training Manager: AMA-430 Course Length: 2 hour(s)

This exam, with test 2, tests theory of operation on the Kohler engine generators, controllers and accessories.

**Prerequisites:** 40127  
**And one of the following:** 47600, 44111

**88114 Kohler Power Systems, Test 2 (E12B)**

Training Manager: AMA-430 Course Length: 2 hour(s)

This exam, with test 1, tests theory of operation on the Kohler engine generators, controllers and accessories.

**Prerequisites:** 40127  
**And one of the following:** 47600, 44111

**88115 Environmental Electrical Concepts (E13)**

Training Manager: AMA-430 Course Length: 3 hour(s)

This exam covers safety, concepts of electricity/magnetism, batteries, electrical conductors, alternating current and vector analysis, basic electrical indicating instruments, transformers, generators, motors, control devices and circuit diagrams, and magnetic amplifiers.

**Prerequisites:** None  
**And one of the following:** None

**88117 ACEPS Standby Power and Distribution System (E15)**

Training Manager: AMA-430 Course Length: 8 hour(s)

This exam covers the ACEPS equipment in the areas of engine generators, control panels, GE/Basler/Woodward control devices, circuit breakers, switchgear, and areas involved with PCMS and 48 VDC control.

**Prerequisites:** 45510, 47112  
**And one of the following:** None

**88118 ACEPS Critical Distribution System (E16)**

Training Manager: AMA-430 Course Length: 6 hour(s)

This exam covers the ACEPS equipment in the areas of Exide UPMs, Bypass Transfer and Control System (BTCS), UPS supply BUS, critical BUS, CPC's and batteries.

**Prerequisites:** 45510, 47112  
**And one of the following:** None

**88208 Markers/Homers (N4)**

Training Manager: AMA-420 Course Length: 1 hour(s)

The exam covers transmission line concepts, coupled circuit theory, transmitter principles, and antenna and radiation pattern concepts. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

**88223 ILS, AIL Mark IB Marker Beacon Station FA-8603 (N16)**

Training Manager: AMA-420 Course Length: 4 hour(s)

The exam covers antennas, transmitters, regulator-keyer, audio-monitor, power supply, auto-reset board, and maintenance order.

**Prerequisites:** 88220  
**And one of the following:** None

**88226 DME, Butler 1020 and Wilcox 595/596 (N19)**

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam covers the theory of operation of Butler (Wilcox) DME. It

also covers adjustment of DME with correct standard and tolerance settings. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88227 ILS, Capture Effect GS (N20)

Training Manager: AMA-420 Course Length: 2 hour(s)

The exam covers capture effect theory, clearance transmitter, radiation patterns, amplitude phase and control unit. Proximity error, and monitoring. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** 88223, 88222, 88224, 88221

## 88234 ILS, Mark 1D/E/F Localizer (N27)

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam covers ILS LOC Systems. Subjects include RF generation, transmission and radiation, LOC-Periodic Antenna System, monitoring power supply, control unit, and flight inspection. This exam is for mailout or on-line use.

**Prerequisites:** 88220  
**And one of the following:** None

## 88235 ILS, Mark 1D/E/F Null Ref GS (N28)

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam covers null reference glideslope ICS systems. Subjects include RF generation, transmission and radiation, NRGs Antenna System, monitoring, power supply control unit, and flight inspection. This exam is for mailout or on-line use.

**Prerequisites:** 88220  
**And one of the following:** None

## 88236 ILS, Mark 1D MKR Beacon (N29)

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam covers the mark 1D Marker Beacon System. Subjects include power supply, transmitter, antenna/radiation patterns, monitor/control, alignment, flight inspection, and troubleshooting. This exam is for mailout or on-line use.

**Prerequisites:** 88000  
**And one of the following:** None

## 88237 ILS, Mark 1D Remote Monitoring (N30)

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam covers the Mark 1D remote monitor receiver. Subjects include RF/IF amplifiers, audio circuits, alarm detector, aural/visual alarm indications, alignment, and troubleshooting. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88238 DME Cardion (FA-9639) (N31)

Training Manager: AMA-420 Course Length: 2 hour(s)

The exam covers system concepts, logic symbols, receiver 1A1A13, exciter, decoder, 1A1A7, encoder 1A1A6, pulse shaper 1A1AB, and transmitter 1A1A15. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88240 ILS Sideband Reference Glideslope (Tube Type)(N33)

Training Manager: AMA-420 Course Length: 2 hour(s)

The exam covers rf patterns, RF phasing, monitoring, modulator, and dd. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88242 VORTAC FA-9996 Second Generation (N35)

Training Manager: AMA-420 Course Length: 6 hour(s)

The exam covers solid state VOR and TACAN; battery charger power supply; facility central processing unit; controlling, certifying, and fault isolation of VORTAC from IOT remote station; and RMC-150 and TRA-2 antenna speed. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88243 DME Cardion FA-9783 (N36)

Training Manager: AMA-420 Course Length: 3 hour(s)

The exam covers theory of operation of the transponder, monitor, control and transfer assembly, and remote monitor. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88247 Double Side-Band Doppler VOR (N40)

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam tests knowledge of doppler VOR radiation patterns, modulation percentage, and equipment operation. Subjects include vector analysis of radiation patterns, evaluation of block diagrams, and circuit diagrams. This exam is for mailout or on-line use.

**Prerequisites: None**  
**And one of the following: None**

## 88248 Microwave Landing System (MLS) Concepts (N41)

Training Manager: AMA-420 Course Length: 1 hour(s)

The exam covers microwave channel allocations, signal format, angle function, phase synchronization, scanning beam angle antennas, basic/auxiliary data, sector coverage, and monitoring system. This exam is for mailout or on-line use.

**Prerequisites: None**  
**And one of the following: None**

## 88253 Low Power TACAN Antenna (LPTA) (N51)

Training Manager: AMA-420 Course Length: 2 hour(s)

This exam tests theory of operation of the Low Power TACAN Antenna System, Type FA-10369. Subjects include TACAN azimuth review, LPTA assembly and system characteristics, subassemblies controls and indicators, power up/power down and vibration, antenna on control logic, power supplies distribution and control, motor drive and speed control, north alignment, course rotation, 15/135/1350 Hz trigger generation, bit circuits and indicators, troubleshooting, RF power distribution and radiation pattern, and high/low band columns.

**Prerequisites: 47701**  
**And one of the following: None**

## 88254 VHF Omni-Range Test Facility (N47)

Training Manager: AMA-420 Course Length: 4 hour(s)

This exam tests knowledge of the VHF omni-range test facility. Subjects include VOT System general theory, unit operation, LRU schematic level operation, and procedures required to maintain, troubleshoot, and repair the VOT System to the LRU replacement level. TI Manual 6810.1, Volumes 1 and 2, are required to take the exam.

**Prerequisites: None**  
**And one of the following: None**

## 88255 Mark 20 Instrument Landing System (ILS) (N50)

Training Manager: AMA-420 Course Length: 8 hour(s)

This theory of operations exam covers the Wilcox Mark 20 ILS and consists of system, portable ILS receiver, maintenance data terminal, marker beacon, localizer, Farfield monitor, glideslope, remote indication and control equipment, and link control unit (LCU).

**Prerequisites: None**  
**And one of the following: 40233, 40283**

## 88256 DME Concepts (N49)

Training Manager: AMA-420 Course Length: 2 hour(s)

This exam covers DME principles, including transponder, DME terminology and nomenclature, and DME system functions, including video processor, decoder, encoder, signal generator, and monitors. This exam is for mailout or on-line use.

**Prerequisites: None**  
**And one of the following: None**

## 88257 ILS Theory of Operations (N52)

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam tests theory of operations for instrument landing systems (ILS). Subjects include ILS localizer, ILS glideslope, marker beacon, ILS system, amplitude modulation, space modulation, difference in depth of modulation, radiation patterns, ILS waveforms, and transmission lines.

**Prerequisites: None**  
**And one of the following: None**

## 88258 Navigation Systems Concepts (N53)

Training Manager: AMA-420 Course Length: 6 hour(s)

This exam tests the concepts and principles relating to the operation of ground-based VOR, DME, and TACAN transmitters, receivers, and monitoring systems. The exam includes calculations involving transmission lines, antenna radiation patterns, modulation, frequency, power, gain, duty cycle, transformers, range measurements, and bearing, as well as VOR bridge adjustments and course error graphing and analysis. VOR ground check graphs and four formula sheets are required (obtain these from examination control center).

**Prerequisites: None**  
**And one of the following: None**

## 88259 VOR Principles (N54)

Training Manager: AMA-420 Course Length: 4 hour(s)

This exam tests the concepts and principles relating to the operation of ground-based VOR transmitters and monitoring systems. The exam includes calculations involving transmission lines, antenna radiation patterns, modulation, frequency, power, and bearing, as well as VOR bridge adjustments and course error graphing and analysis. VOR ground check graphs and three formula sheets are required (obtain these from the Examination Control Center).

**Prerequisites:** None  
**And one of the following:** None

## 88260 TACAN Principles (N55)

Training Manager: AMA-420 Course Length: 4 hour(s)

This exam tests the concepts and principles relating to the operation of ground-based TACAN transmitters and monitoring systems. The exam includes calculations involving transmission lines, antenna radiation patterns, modulation, frequency, power, gain, duty cycle, transformers, range measurements, and bearing. Three formula sheets are required (obtain these from the Examination Control Center).

**Prerequisites:** None  
**And one of the following:** None

## 88261 LLWAS-RS, Type FA-14100 (N56)

Training Manager: AMA-420 Course Length: 2 hour(s)

This exam covers the LLWAS-RS in the areas of system concepts, major and subassembly identification, communication functions, system displays, functional characteristics, signal flow, software applications, operation checks, removal and replacement procedures, preventive maintenance, and system restoration.

**Prerequisites:** 47504  
**And one of the following:** 44013, 44020

## 88317 ASR-7 (R13)

Training Manager: AMA-450 Course Length: 3 hour(s)

The exam covers trigger timing, transmitter system, receiver, digital processor, MTI, video processing, azimuth system, and control circuits. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88346, 88360

## 88319 ATCBI-4 (R15)

Training Manager: AMA-440 Course Length: 4 hour(s)

The exam covers system-operation concepts, test set, pulse-mode generator concepts, control concepts, pulse-mode generator fault analysis, control circuits, TX/RX, monitor, digital defruiter fault analysis, and digital defruiter concepts.

**Prerequisites:** None  
**And one of the following:** 40392, 42058, 88346, 88360

## 88324 Airport Surveillance Radar (ASR-9) Hardware (R20)

Training Manager: AMA-450 Course Length: 4 hour(s)

Bypass for 40337. The exam covers introduction, RMS/system control, synchronizer, transmitter, receiver, post processor, SCIP, and modems/antennas. Reference material required for this examination includes: 1) TI 6310.24, ASR-9 System; 2) TI 6310.25, Transmitter; 3) TI 6310.26, Target and 2LVL WX Receiver Processor; 4) TI 6310.27, Remote Monitoring Subsystem; 5) TI 6310.28, 6LVL WX receiver Processor SCIP; 6) TI 6310.29, Maintenance PPI; 7) TI 6310.30, Antenna System; and 8) TI 6310.31, Remote/Dual Remote SCIP.

**Prerequisites:** None  
**And one of the following:** 42058, 40392, 88346, 88360

## 88331 Digital Defruiter (R27)

Training Manager: AMA-450 Course Length: 4 hour(s)

The exam covers the operation of the MX-8757 Digital Defruiter. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88333 ARSR-1/2 (R29)

Training Manager: AMA-440 Course Length: 4 hour(s)

The exam covers the fundamental concepts required for the operation, maintenance, and repair of the ARSR 1/2 radar system. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88335 ATCBI-5 (R31)

Training Manager: AMA-440 Course Length: 3 hour(s)

The exam covers the operation of the ATCBI-5 Beacon System. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88336 ASR-8 (R32)

Training Manager: AMA-450 Course Length: 4 hour(s)

The exam covers the operation of the ASR-8 terminal radar. This exam is for mailout or online use.

**Prerequisites:** None

**And one of the following:** 42058, 40392, 88346, 88360

## 88345 DBRITE System (R41)

Training Manager: AMA-460 Course Length: 4 hour(s)

This exam covers theory on digital scan converter, power supply and junction box, display and inter-related control functions. Study references: 1) TI 6410.18, Operation and Maintenance Instructions, DBRITE System; 2) TI 6410.21, Operation and Maintenance Instructions, DBRITE Display.

**Prerequisites:** None

**And one of the following:** None

## 88349 ASR-9 Remote SCIP (R45)

Training Manager: AMA-450 Course Length: 4 hour(s)

This examination covers the theory on ASR-9 remote surveillance communications interface processor (SCIP) and ASR-9 modems. Study references are TI 6310.24, ASR-9 System, and TI 6310.31, ASR-9 remote/dual remote SCIP.

**Prerequisites:** None

**And one of the following:** 42058, 40392, 88346, 88360

## 88350 Mode-S System (R46)

Training Manager: AMA-450 Course Length: 4 hour(s)

This test covers all phases of the Mode-S system including terminal usage, Mode-S/ATCRBS interrogations, Mode-S/ATCRBS replies, transmitter, receiver, DPS, signal processor, toy clock, CPME, different modes of operation, RTADS, PLOTSR, TDR data reduction tools, system status, and system troubleshooting.

**Prerequisites:** 44020

**And one of the following:** 42058, 40392, 88346, 88360

## 88353 Solid State Radar Beacon Decoder (SSRBD) (R49)

Training Manager: AMA-440 Course Length: 2 hour(s)

This exam covers the installation, evaluation, and maintenance of the SSRBD equipment. Subject areas include system concepts, control circuits, power supplies, and line replaceable units (LRU).

**Prerequisites:** None

**And one of the following:** None

## 88357 ARSR 1/2 With SSR/DMTI Type 1 (R53)

Training Manager: AMA-440 Course Length: 4 hour(s)

This exam covers the fundamental concepts required for the operation, maintenance, and performance of the diagnostic procedures of the ARSR 1/2 Radar System with SSR/DMTI modification.

**Prerequisites:** None

**And one of the following:** 40392, 42058, 88360

## 88358 ARSR-3 With 3LW and RMM (R54)

Training Manager: AMA-440 Course Length: 8 hour(s)

This concepts exam covers introduction to the Air Route Surveillance Radar (ARSR)-3 System, maintenance display, Planar Array Test Set, transmitter, receiver, control panels, digital target extraction, output processor, receiver interface control, built-in test equipment, and remote maintenance monitoring.

**Prerequisites:** 42058

**And one of the following:** 40339, 47706

## 88359 Radio Communications Link System Terminal Equipment (R55)

Training Manager: AMA-440 Course Length: 40 hour(s)

This exam covers concepts, operation and maintenance of electronic assemblies and subassemblies that are utilized only at RCL system air route traffic control center (ARTCC) and junction area control facility (ACF) high-density terminal facilities, to include overview of the RCL ARTCC/ACF high-density terminal equipment, the Coastcom channel bank, the Fairchild M505M microw ave modem, engineering change proposal (ECP) 027 support equipment, and the AT&T Acorn Network Control System.

**Prerequisites:** None

**And one of the following:** None

## 88360 Modern Radar Concepts (R56)

Training Manager: AMA-450 Course Length: 3 hour(s)

This exam tests the concepts and principles of modern radar. Subjects include primary radar, transmission lines and waveguide components, antenna systems, factors affecting performance, modern synchronizer functions, high voltage modulators, high power RF output devices, transmitter troubleshooting techniques, radar receivers, phase detection processing, interfacing type and methods, display systems, and beacon systems.

**Prerequisites:** None  
**And one of the following:** None

## 88361 Full STARS Maintenance (R57)

Training Manager: AMA-490 Course Length: 2 hour(s)

This exam covers the STARS Automation System. Subject areas include local area network maintenance, radar data interface and display, UNIX familiarization, SOS operation, flight data interface and display, continuous data recording, system timing, Sony monitor, system administration and security, software management, and fault isolation and repair.

**Prerequisites:** 88440, 88441  
**And one of the following:** 12751, 40423

## 88362 ASDE-X (R58)

Training Manager: AMA-440 Course Length: 4 hour(s)

This is the bypass exam for the ASDE-X equipment course. This exam tests the knowledge of the ASDE-X principles and the theory of operations; sequential operation of controls during startup, normal operations, shutdown, and abnormal or fault conditions; analysis of system abnormalities and determination of corrective action required; safety precautions to be observed; use of special tools and test equipment; criteria for removal, disassembly, inspection, evaluation, and repair or replacement of system components; testing requirements and procedures; sequence and standards for reassembly and checkout; and knowledge and use of technical documentation.

**Prerequisites:** None  
**And one of the following:** None

## 88363 PRM TRACON (R59)

Training Manager: AMA-450 Course Length: 3 hour(s)

The bypass exam is for technicians and engineers who maintain the precision runway monitor (PRM) TRACON equipment. This bypass exam covers the indicator portion of the PRM as well as the maintenance of PRM hardware.

**Prerequisites:** None  
**And one of the following:** None

## 88364 STARS System Specialist (R60)

Training Manager: AMA-490 Course Length: 2 hour(s)

This exams tests the STARS system specialist on the STARS System and security administration. Subjects include duties and responsibilities, Solaris, VI editor, networking, file systems and management, disk structure and partitions, startup and shutdown,

backup and restore, crash management, security policy and administration, auditing basics, auditing setup, and audit trail analysis.

**Prerequisites:** 42071  
**And one of the following:** None

## 88365 Solid State Video Mapper (SSVM) (R61)

Training Manager: AMA-450 Course Length: 2 hour(s)

This exam covers the operation of the FA-8970 types of Solid State Video Mapper (SSVM). This exam is for mailout or online use.

**Prerequisites:** None  
**And one of the following:** 42058, 40392, 88346, 88360

## 88366 FPS Series Radar (R62)

Training Manager: AMA-440 Course Length: 4 hour(s)

This bypass exam covers the fundamental concepts required for operation, maintenance, and performance of the diagnostic procedures of the FPS series radar, both the transmitter and Solid State Receiver/Digital Moving Target Indicator (SSR/DMTI) modification.

**Prerequisites:** None  
**And one of the following:** 40392, 42058

## 88401 Coded Time Source (D2)

Training Manager: AMA-480 Course Length: 2 hour(s)

This exam covers analysis and alignment of the coded time source system. Included are system wide logic level determination as well as functional analysis of the various sections of the overall coded time source system. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88414 Sensor RCVR and Processor (SRAP) (D15)

Training Manager: AMA-460 Course Length: 3 hour(s)

The exam covers micro-controller, radar extractor, BDAS, diagnostics, and operational firmware. This exam is mailout only.

**Prerequisites:** None  
**And one of the following:** None

## 88417 ARTS IIIA Data Entry Display System (DEDS) (D18)

Training Manager: AMA-460 Course Length: 3 hour(s)

The exam covers the theory of operation of the data entry and display subsystem (DEDS), and the theory of operation of the multiplexed display buffer memory (MDBM), as well as the diagnostic program for MDBM/DEDS. This exam is for mailout or on-line use.

**Prerequisites:** None  
**And one of the following:** None

## 88420 Peripheral Adapter Module Replacement Item (PAMRI)

Training Manager: AMA-470 Course Length: 2 hour(s)

This exam covers operational aspects of the PAMRI hardware and software configurations, operational requirements, and parameters; the HOST computer; PAMRI systems and channel interfaces; and PAMRI system data analysis, problem determination, and resolution. Study References: PAMRI hardware technical manuals volumes I, II, and III, PAMRI RAPPI operators' manual PU02 8/15/91, and PAMRI remote RAPPI operators' manual PU02 11/30/92.

**Prerequisites:** None  
**And one of the following:** None

## 88421 Computer Update Equipment (CUE) (D22)

Training Manager: AMA-470 Course Length: 0 hour(s)

**Prerequisites:** None  
**And one of the following:** None

## 88428 Dictaphone Model 5000 (D29)

Training Manager: AMA-410 Course Length: 2 hour(s)

The exam covers system components and configurations, operating procedures, theory of operation, servicing-alignment/calibration, and troubleshooting. This exam is for mailout or online use.

**Prerequisites:** None  
**And one of the following:** None

## 88430 Host Computer System (HCS) Enhanced Computer Opr Trng

Training Manager: AMA-470 Course Length: 5 hour(s)

This exam covers problem determination and isolation of hardware and software errors. Hardware includes processor subsystem and peripheral devices. Software programs covered are NAS, VM, and MVS. Emphasis is on reconfiguration of resources and recovery from errors and problems, to ensure NAS integrity. Study References are: GC38-0035; GC38-0036; B095-II, B095-V; SC19-6225; SC19-6227; SC19-6226; GC28-1378; GC28-0984; GC281354; GC28-1374; GC28-

1375, and SC23-0048. For a complete description of study references, see AF ECC Catalog in CYBIS.

**Prerequisites:** None  
**And one of the following:** None

## 88431 Radar Data Acquisition Subsystem

Training Manager: AMA-480 Course Length: 2 hour(s)

This exam covers the fundamental concepts of primary and secondary radar systems, digitizing equipment, IMCS functions relating to radar system monitoring by NAS/NOM specialists at an ARTCC. Other areas include radar-related message processing by the HOST and DARC as well as radar-related message data flow at the ARTCC. Concepts and interpretation of RDAS analysis tools available to the NAS/NOMS are also covered. Study References: all manuals for the resident Course 43009, RDAS plus: RDAS--General Information and Documentation Guide, FAA-4006-2H; NAS-MD-320, Multiple Radar Data Processing; and NAS-MD-322, Real Time Quality Control of Radar Data.

**Prerequisites:** None  
**And one of the following:** None

## 88434 DSR Hardware Test 1 (D35A)

Training Manager: AMA-470 Course Length: 6 hour(s)

This exam tests knowledge of the IBM RISC 6000 Display System Replacement (DSR) Hardware System for ARTCC's, including theory, error indications, troubleshooting, testing, and cabling.

**Prerequisites:** None  
**And one of the following:** 44013, 44020

## 88435 DSR Hardware Test 2 (D35B)

Training Manager: AMA-470 Course Length: 6 hour(s)

This exam tests knowledge of the IBM RISC 6000 Display System Replacement (DSR) Hardware System for ARTCC's, including theory, error indications, troubleshooting, testing, and cabling.

**Prerequisites:** 88434  
**And one of the following:** 44013, 44020

## 88436 Fundamental of Internetworking for NAS (D36)

Training Manager: AMA-480 Course Length: 2 hour(s)

This exam tests theory of operation on the fundamentals of internetworking for NAS. Subjects include principles of networking, TCP/IP, routing, and new Windows NT version 4.0.

**Prerequisites:** None  
**And one of the following:** None

## 88437 UNIX for NAS (D37)

Training Manager: AMA-480 Course Length: 3 hour(s)

This exam covers basic UNIX commands, UNIX system administration, and network concepts (including setup and configuration of NIS, NFS, and DNS).

**Prerequisites:** None  
**And one of the following:** None

## 88438 NAS Overview for OCC Specialists (D38)

Training Manager: AMA-480 Course Length: 2 hour(s)

This exam covers the role of Operations Control Center (OCC) and the National Operations Control Center (NOCC) in the NAS, OCC specialists and their role in the NAS, NAS/en route/terminal and general services areas, technical support facilities, commercial airplane flight, and future projections for equipment and services and Airway Facilities.

**Prerequisites:** None  
**And one of the following:** None

## 88439 AWOS (D39)

Training Manager: AMA-480 Course Length: 3 hour(s)

This exam covers the AWOS system configuration, system operation, technical procedures, system malfunctions, and troubleshooting.

**Prerequisites:** None  
**And one of the following:** None

## 88441 Network+ Certification (D41)

Training Manager: AMA-490 Course Length: 2 hour(s)

This exam is a Comptia vendor-neutral certification that measures the technical knowledge of networking professionals with 18-24 months experience in the IT industry. This test is administered by NCS/VUE and Prometric. This certification indicates the technician possesses the knowledge needed to configure and operate a variety of networking products. The exam covers a wide range of vendor and product neutral networking technologies that can also serve as a prerequisite for vendor-specific IT certifications. There are 65 questions on this exam.

**Prerequisites:** None  
**And one of the following:** None

## 88442 ECG Hardware Maintenance (D42)

Training Manager: AMA-470 Course Length: 3 hour(s)

This bypass exam is for ATSS hardware maintenance personnel on the en route communications gateway (ECG). This is an open book exam.

**Prerequisites:** 47438  
**And one of the following:** None

## 88443 ECG Software Maintenance (D43)

Training Manager: AMA-470 Course Length: 4 hour(s)

This bypass exam is for ATSS software maintenance personnel on the En route Communications Gateway (ECG). This is an open book exam.

**Prerequisites:** 47438  
**And one of the following:** None

## 88444 ECG Overview for NAS/NOM (D44)

Training Manager: AMA-470 Course Length: 2 hour(s)

This bypass exam is for AF HOST computer specialists and AF NAS/NOM personnel on the En route Communications Gateway (ECG). This is an open book exam.

**Prerequisites:** 47438  
**And one of the following:** None

## 88520 Wind/Altimeter Equipment (CP9)

Training Manager: AMA-410 Course Length: 4 hour(s)

The exam tests proficiency in wind direction indicator, wind-speed transmitter, wind-speed indicators, wind retransmitter, altimeter setting indicator, and digital altimeter setting indicator.

**Prerequisites:** None  
**And one of the following:** None

## 88527 VDF Type CA-3300 (CP16)

Training Manager: AMA-410 Course Length: 4 hour(s)

The exam tests proficiency in the VDF Type CA-3300. Subjects include antennas (CA-3310), receiver (CA-3320), amplifier-power supply (CA-3332), mechanical indicators azimuth (CA-3345), control unit (CA-3344), adapter unit (CA-3341), ground check, and flight inspection check.

**Prerequisites:** None  
**And one of the following:** None

## 88530 RBC (CP19)

Training Manager: AMA-410 Course Length: 5 hour(s)

The exam tests proficiency in the rotating beam ceilometer (RBC). Subjects include projector, detector, and indicator.

**Prerequisites: None**  
**And one of the following: None**

## 88540 Recorder, Leach, 5-CH, FA8144 (CP29)

Training Manager: AMA-410 Course Length: 8 hour(s)

The exam tests proficiency in the Leach 5-channel recorder type FA-8144. Subjects include power supply, 5-channel recorder, reproducer, tape cartridge, mixing amplifier, tape log, and re-recording techniques.

**Prerequisites: None**  
**And one of the following: None**

## 88541 VDF (Doppler) Remoting Equipment (CP30)

Training Manager: AMA-410 Course Length: 3 hour(s)

The exam tests proficiency in the VDF (doppler) remoting equipment FA-5571/5572. Subjects include local control unit (FA-5571), local control unit data transmitter, remote control unit (FA-5572), and indicator.

**Prerequisites: None**  
**And one of the following: None**

## 88542 Recorder, Magnasync TR-1720/1710 (CP31)

Training Manager: AMA-410 Course Length: 5 hour(s)

The exam tests proficiency in the magnasync recorder (TR-1720/tr-1710). Subjects include recorder operation, power supply/bias checks, system checks, monitor panel, fail safe monitor, reproduce amplifier, time code generator, and reproducer.

**Prerequisites: None**  
**And one of the following: None**

## 88543 BUEC (FA-8190, FA-8191) (CP32)

Training Manager: AMA-410 Course Length: 8 hour(s)

The exam tests proficiency in the backup emergency communications VHF transceiver 20 w att, type FA-8190/8191. Subjects include coordination, preliminary checks, tone generator adjustments and connections, receiver performance, keying tone notch, filter adjustment, transmitter performance, antennas and transmission lines, and control lines system.

**Prerequisites: None**  
**And one of the following: None**

## 88545 BUEC Remote Control Group (ARTCC) (CP34)

Training Manager: AMA-410 Course Length: 4 hour(s)

The exam tests proficiency in the BUEC remote control group. Subjects include coordination, command and transmitter keying checks, power supplies check, tone generator frequency check, ready error detection alignment, transmit audio level adjustment, removal/replacement of priority module, maintenance panel operation, and remote link tester.

**Prerequisites: None**  
**And one of the following: None**

## 88547 CMLT (Farinon) (CP36)

Training Manager: AMA-410 Course Length: 10 hour(s)

The exam tests proficiency in communication link equipment, Farinon Type PT-150. Subjects include power supply adjustment, receiver and transmitter voltage checks, transmitter power and combined transmitter, output, transmitter frequency check and deviation, receiver calibration, base and frequency response, net path attenuation, baseband and multiplex system noise, and various other checks and adjustments.

**Prerequisites: None**  
**And one of the following: None**

## 88550 Doppler DF (FA-9964) (CP39)

Training Manager: AMA-410 Course Length: 8 hour(s)

The exam tests proficiency in certification procedures and parameters, power supply checks, doppler DF performance checks, system alignment, and flight inspection.

**Prerequisites: None**  
**And one of the following: None**

## 88551 CP-40-Dictaphone 5000 Recorder

Training Manager: AMA-410 Course Length: 4 hour(s)

The exam tests proficiency in power supply/bias adjustments, system adjustments, system checks, monitor control adjustments, time/date code generator/reader adjustments, time/date code generator operation, recorder operation, monitor panel operation and use, reproducer checks, tape break check, tape erase and splicing demonstrations, use of tape log, and restoring system to normal operation (coordination with air traffic).

**Prerequisites:** None  
**And one of the following:** None

## **88557 ATIS - TWEB COMEX Solid-State Type FA-10012 (CP46)**

Training Manager: AMA-480 Course Length: 4 hour(s)

The exam tests proficiency in the COMEX Digital Deck (CDD-1000) Solid-State ATIS Recorder/Reproducer Set, Type FA-10012. Subjects include output level adjustment, system frequency response, system signal-to-noise ratio, and special checks.

**Prerequisites:** None  
**And one of the following:** None

## **88564 Frequency Modulation Equipment (LCOT) (CP53)**

Training Manager: AMA-410 Course Length: 6 hour(s)

The exam tests proficiency in frequency modulation equipment (LCOT). Subjects include coordination prior to removal from service, transmitter adjustments, transmission lines, antenna measurements, antenna adjustments, hot switchover system, power supplies, and restoration of equipment to normal with proper adjustments.

**Prerequisites:** None  
**And one of the following:** None

## **88567 RVR/RVV Transmissometer, Etc. (CP56)**

Training Manager: AMA-420 Course Length: 2 hour(s)

The exam tests proficiency on the RVR/RVV transmissometer. Areas covered by the exam include transmissometer adjustments or alignments, indicator chassis, and recorder.

**Prerequisites:** None  
**And one of the following:** None

## **88568 RVR/RVV (SSR) (CP57)**

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam tests proficiency on the SSR RVR/RVV. Areas covered by the exam include runway light intensity relay chassis, day-night switch, remote display, receiver-decoder, runway computer selector, command generator, and ten relay indicator matrix.

**Prerequisites:** None  
**And one of the following:** None

## **88569 RVR/RVV (IRA) (CP58)**

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam tests proficiency on the IRA RVR/RVV. Areas covered by the exam include runway light intensity relay chassis, day-night switch, remote display, receiver-decoder, runway computer selector, time base generator, function generator, RVR tables, answer translator, and power supply and control panel.

**Prerequisites:** None  
**And one of the following:** None

## **88571 RVR/RVV (Tasker) 500 (CP60)**

Training Manager: AMA-420 Course Length: 3 hour(s)

This exam tests proficiency on the Tasker 500 RVR/RVV. Areas covered by the exam include runway light intensity chassis, day-night switch, remote display, receiver-decoder, runway computer selector, signal data converter, remote display programmer, and mainframe.

**Prerequisites:** None  
**And one of the following:** None

## **88572 Single Channel Digital Recorder System FA-10146 (CP61)**

Training Manager: AMA-410 Course Length: 7 hour(s)

The exam tests proficiency in the Single Channel Digital Recorder System (FA-10146). Subjects include coordination with air traffic, system operation, maintenance, and final check.

**Prerequisites:** None  
**And one of the following:** None

## **88573 Qualimetrics AWOS (CP62)**

Training Manager: AMA-480 Course Length: 4 hour(s)

This exam tests proficiency in the following areas of the qualimetrics AWOS; remote sensor identification, central-data platform identification, log procedures, voice data checks, terminal operation, sensor interface processor check, wind speed and direction, temperature and dew point visibility, day/night sensor, precipitation, cloud height, barometric pressure, central data platform, and aircraft accident procedures.

**Prerequisites:** None  
**And one of the following:** None

## **88575 Voice Switching and Control System (VSCS) Hardware (CP67)**

Training Manager: AMA-410 Course Length: 28 hour(s)

This exam tests proficiency on the VSCS. The areas covered by the exam include the VCE, switching subsystem, position equipment, the control subsystem, the control site portion of the facility wiring, and the control site portion of the RCE System.

**Prerequisites:** None  
**And one of the following:** 40272, 48171

## 88576 High Capacity Voice Recorder (Magnasync/Moviola)(CP65)

Training Manager: AMA-410 Course Length: 12 hour(s)

This exam tests proficiency in the following areas of the Magnasync/Moviola high capacity voice recorder: cleaning, tape loading, operating checks, recorder inspection, demagnetizing heads, inspecting voice quality, reproducer operation, reproducer inspection, time channel validation, tape handling and storage, and master synchronizer operation.

**Prerequisites:** None  
**And one of the following:** None

## 88578 Teledyne Runway Visual Range (RVR) System (CP64)

Training Manager: AMA-420 Course Length: 4 hour(s)

This exam tests proficiency on the Teledyne Runway Visual Range (RVR) System. Areas covered by the exam include the data processing unit, visibility sensor/sensor interface electronics (ALS/SIE), runway light intensity monitor/sensor interface electronics (RLIM/SIE), and controller display.

**Prerequisites:** None  
**And one of the following:** None

## 88579 Nexcom Multimode Digital Radio (Analog) (CP69)

Training Manager: AMA-410 Course Length: 8 hour(s)

This exam tests proficiency on the nexcom multimode digital radio (MDR) (analog) equipment. Subjects include the MDR receiver and transmitter system parameter measurements include RX and TX frequency stability; RX sensitivity, selectivity, SINAD (SNR), AVC action and squelch settings; TX operating frequency, RF power output, modulation checks and load VSWR.

**Prerequisites:** None  
**And one of the following:** None

## 88580 Digital Voice Recorder System (CP68)

Training Manager: AMA-410 Course Length: 8 hour(s)

This exam tests proficiency in the Digital Voice Recorder System (DVRS) equipment. Subjects include system gain, audio frequency response, signal-to-noise ratio, crosstalk, remote alarm operation and indication, playback voice quality, time source correctness, and computer workstation software configuration.

**Prerequisites:** None  
**And one of the following:** 47014, 48241

## 88581 VHF and UHF Communications Equip and Facility Wiring (CP70)

Training Manager: AMA-410 Course Length: 16 hour(s)

This performance examination tests proficiency on the VHF and UHF communication equipment and facility wiring. Equipment included in this exam: Motorola CM-200 Receiver/Transmitter System. ITT AN/GRT-21 and AN/GRT-22 transmitters, ITT AN/GRR-23 and AN/GRR-24 receivers, radio control equipment, and facility wiring. Subjects include VHF/UHF receiver and transmitter operation and adjustments, coordination of maintenance activities, certification requirements, radio control equipment (RCE) interfaces, antennas and transmission line measurement procedures and tracing the voice and signal paths using facility wiring drawings.

**Prerequisites:** None  
**And one of the following:** None

## 88582 Digital Voice Recorder 2 (DVR2) (CP71)

Training Manager: AMA-410 Course Length: 8 hour(s)

This exam tests proficiency on the Digital Voice Recorder Series II, (DVR2). Subjects include system gain, audio frequency response, signal-to-noise ratio, crosstalk, remote alarm operation and indication, playback voice quality, time source correctness, and computer workstation software configuration.

**Prerequisites:** 40045  
**And one of the following:** None

## 88583 Enhanced Terminal Voice Switch (ETVS) (CP72)

Training Manager: AMA-410 Course Length: 5 hour(s)

This exam tests proficiency on the enhanced terminal voice switch (ETVS). Subjects include overall system level alignment, radio processor alignment, alignments on the five different types of telephone interfaces, automatic gain control alignment for microphone and telephone, power supply alignment, battery checks, local mapping, global mapping, map editing, configuration settings, database backup procedures, control site side of the radio control equipment (RCE), and control site side of the facility wiring.

**Prerequisites:** 40041  
**And one of the following:** None

## 88584 Small Tower Voice Switch (STVS) (CP73)

Training Manager: AMA-410 Course Length: 5 hour(s)

This exam tests proficiency on the Small Tower Voice Switch (STVS). Subjects include transmit channel alignment, receive channel alignment, telephone interface alignments, power supply alignments, local system mapping, global mapping, map editing, system information editing, and software configuration, control site side of the radio control equipment (RCE), and control site side of the facility wiring.

**Prerequisites:** 47507  
**And one of the following:** None

## 88585 RDVS Models 3080c, E, F, and H (CP74)

Training Manager: AMA-410 Course Length: 7 hour(s)

This exam tests proficiency on the Models 3080C, E, F, and H rapid deployment voice switches. Subjects include transmit channel alignment, receive channel alignment, telephone interface alignment, power supply alignment, software configuration, control-site side of the radio control equipment RCE, and control-site side of the facility wiring.

**Prerequisites:** None  
**And one of the following:** 40028, 40042

## 88586 Denro Model 400 RDVS II (CP75)

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam tests proficiency on the Denro Model 400 RDVS. Subjects include transmit channel alignment, receive channel alignment, telephone interface alignments, power supply alignments, local system mapping, global mapping, map editing, system information editing, software configuration, control site side of the radio control equipment RCE, and control site side of the facility wiring.

**Prerequisites:** 40028  
**And one of the following:** None

## 88587 Integrated Communications Switching Systems (ICSS) (CP76)

Training Manager: AMA-410 Course Length: 7 hour(s)

This exam tests proficiency on the ICSS Types I, IA, II, Denro and Litton Type II. Subjects include transmit channel alignment, receive channel alignment, telephone interface alignments, power supply alignments, software configuration, control site side of the radio control equipment (RCE), and control site side of the facility wiring.

**Prerequisites:** None  
**And one of the following:** 40023, 40024, 40028

## 88588 Voice Switching and Control Sys (VSCS W/ VCSU Upgrade)(CP77)

Training Manager: AMA-410 Course Length: 28 hour(s)

This exam tests proficiency in the voice switching and control subsystem upgrade (VCSU). The exam covers system performance checks, VCSU System requirements, the VCE, switching subsystem, position equipment, the control subsystem, the control site portion of the facility wiring, and the control site portion of the RCE System and tasks required to certify the system. Technicians currently holding the certification authority and responsibility for VSCS (FIC 48CB) need only complete Section B. Technicians not holding certification authority and responsibility for VSCS must complete the entire exam.

**Prerequisites:** None  
**And one of the following:** 40046, 40047

## 88589 VSCS Training and Backup System (VTABS) (CP78)

Training Manager: AMA-410 Course Length: 4 hour(s)

This exam tests proficiency on the VSCS Training and Backup System (VTABS). Subjects include bulk switchover, diagnostic procedures, system verification, audio alignments, power supply checks and certification procedures.

**Prerequisites:** 40000  
**And one of the following:** None

## 88601 VASI (EP1B)

Training Manager: AMA-430 Course Length: 6 hour(s)

This exam tests proficiency in all types of VASI systems. It is divided into three sections: (1) general; (2) remote control; and (3) specific types of VASI systems. Complete only the subsection(s) applicable to the type of systems at your facility.

**Prerequisites:** None  
**And one of the following:** None

## 88602 REIL, LDIN (EP1C)

Training Manager: AMA-430 Course Length: 4 hour(s)

The exam tests proficiency in installation and maintenance of lead-in and runway-end identifier lighting systems.

**Prerequisites:** None  
**And one of the following:** None

## 88608 EP4-Omni-Directional Approach Lighting System (ODALS)

Training Manager: AMA-430 Course Length: 4 hour(s)

This exam tests proficiency in the operation and maintenance of the ODALS.

**Prerequisites: None**  
**And one of the following: None**

## 88609 ALSF, MALS, MALSR, SSALR, SSALS (EP5)

Training Manager: AMA-430 Course Length: 12 hour(s)

The exam tests proficiency in the operation and maintenance of the ALSF, MALS, MALSR, SSALR, and SSALS.

**Prerequisites: None**  
**And one of the following: None**

## 88610 Multi-Electric MALSR FA-9425/1 (EP6)

Training Manager: AMA-430 Course Length: 4 hour(s)

This exam tests proficiency in the operation and maintenance of the multi-electric MALSR.

**Prerequisites: None**  
**And one of the following: None**

## 88611 UPS Exide (EP7)

Training Manager: AMA-430 Course Length: 15 hour(s)

This exam tests proficiency in the operation and maintenance of the Exide uninterruptible power supply.

**Prerequisites: None**  
**And one of the following: None**

## 88612 PAPI Type FA-10147 Sonicraft (EP8)

Training Manager: AMA-430 Course Length: 6 hour(s)

This exam tests proficiency in the operation and maintenance of the PAPI.

**Prerequisites: None**  
**And one of the following: None**

## 88614 ARTCC Critical and Essential Power System (ACEPS) (EP10)

Training Manager: AMA-430 Course Length: 32 hour(s)

This exam tests proficiency in the power control and monitoring system (PCMS) configuration, switchgear operation, critical power centers (CPC), uninterruptible power modules (UPM), batteries, bypass transfer control system, and system-level tests of ACEPS.

**Prerequisites: None**  
**And one of the following: None**

## 88615 MALSR Type FA-10290 (AVW)(EP11)

Training Manager: AMA-430 Course Length: 10 hour(s)

This performance exam covers the medium intensity approach lights with RAIL (MALSR) Type FA-10290 (AVW).

**Prerequisites: 40143**  
**And one of the following: None**

## 88616 PAPI Type FA-10265 (AVW) and FA-10620 (NBP) (EP12)

Training Manager: AMA-430 Course Length: 6 hour(s)

This performance exam covers the precision approach path indicator (PAPI) Type FA-10265 (AVW) or Type FA-10620 (NBP).

**Prerequisites: 47107**  
**And one of the following: None**

## 88617 DME MALSR (EP13)

Training Manager: AMA-430 Course Length: 6 hour(s)

This performance exam covers the Medium Intensity Approach Lighting System with RAIL (DME MALSR).

**Prerequisites: 40147**  
**And one of the following: None**

## 88618 Dual Mode Intensity Appr (ALSF-2/SSALR) Type FA-10048 (EP14)

Training Manager: AMA-430 Course Length: 12 hour(s)

This performance exam covers the Dual Mode High Intensity Approach Lighting System (ALSF-2/SSALR) Airflow Type FA-10048.

**Prerequisites: None**  
**And one of the following: None**

## 88707 NDB-COMLO, Common (NP8)

Training Manager: AMA-420 Course Length: 7 hour(s)

The exam tests proficiency in the Comio Non-Directional Beacon (NDB). There are two sections. Section A subjects include transmitter adjustments, monitor adjustments, shutdown time delay, automatic reset/changeover (if applicable), insulation resistance, battery charge/voltage level check, and return system to normal operation. Section B subjects include antenna, voice/identification quality check, local/remote monitor operation and adjustments, and flight check requirements.

**Prerequisites: None**  
**And one of the following: None**

**88731 Solid State Markers (NP30)**

Training Manager: AMA-420 Course Length: 5 hour(s)

The exam tests proficiency in solid state markers. Subjects include transmitter adjustments, modulation level measurements, modulation frequency measurements, identification keying, equipment transfer and/or changeover initial monitor test, operating monitor adjustments, antenna and transmission line resistance and continuity, transmission line voltage standing wave ratio (50 Ohm transmission line), simulated flight check, and actual flight check.

**Prerequisites: None**  
**And one of the following: None**

**88733 Remote Radio-Controlled Visual NavAids (NP32)**

Training Manager: AMA-420 Course Length: 10 hour(s)

The exam tests proficiency in remote radio-controlled visual NavAids. Subjects include coordination of maintenance activities with air traffic (AT), use of local control for trouble isolation, test equipment adjustments and connections, FM receiver/decoder performance, alignment procedures, final checks, FM transmitter performance, AM receiver performance, system-level checks, control console tone output levels, flight inspection procedures, restoring equipment to normal operation, and final coordination of maintenance activities with AT.

**Prerequisites: None**  
**And one of the following: None**

**88741 Cardion DME (FA-9783) (NP40)**

Training Manager: AMA-420 Course Length: 10 hour(s)

The exam tests proficiency in the Cardion Distance Measuring Equipment (DME), Type FA-9783. Subjects include ground station, DME monitor, and performance checks.

**Prerequisites: None**  
**And one of the following: None**

**88747 ILS, Wilcox Mark 1A Marker Beacon Type FA-8030 (NP47)**

Training Manager: AMA-420 Course Length: 5 hour(s)

The exam tests proficiency in the Mark 1A Marker Beacon Station Type FA-8030. Subjects include power supply, transmitter, modulation level, modulation frequency, identification keying, transmission line VSWR, antenna and transmission line insulation resistance, monitor alarm, simulated flight check, and actual flight check.

**Prerequisites: None**  
**And one of the following: None**

**88753 ILS, Wilcox Mark 1F Localizer Type FA-9903 (NP53)**

Training Manager: AMA-420 Course Length: 8 hour(s)

This exam tests proficiency in the Mark 1F Localizer Type FA-9903. Subjects include transmitter adjustments, identification modulation, waveform analysis (mech-modulator), Antenna System, monitor adjustments, RF phasing, ground check, flight inspection, local control unit, and remote status indicator (land line only).

**Prerequisites: None**  
**And one of the following: None**

**88754 Wilcox Mark 1F Null Ref Glideslope, Type FA-9919 (NP54)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Mark 1F Null Reference Glideslope, Type FA-9919. Subjects include transmitter, waveform analysis, RF phasing, antenna mast proximity, position, antenna system, monitor adjustments, flight inspection, and local control unit.

**Prerequisites: None**  
**And one of the following: None**

**88755 ILS, Wilcox Mark 1F Sideband Ref GS FA-9919/9929 (NP55)**

Training Manager: AMA-420 Course Length: 10 hour(s)

The exam tests proficiency in the Mark 1F Sideband Reference Glideslope, Type FA-9919/9929. Subjects include transmitter adjustment, waveform analysis, distribution unit, RF phasing, detector location (sideband reference), antenna system, monitor adjustments, flight inspection, remote status indication (land lines only), and control unit.

**Prerequisites: None**  
**And one of the following: None**

**88756 ILS, Wilcox Mark 1F CEGS FA-9919/9928 (NP56)**

Training Manager: AMA-420 Course Length: 10 hour(s)  
The exam tests proficiency in the Mark 1F Capture Effect Glideslope, Type FA-9919/9929. Subjects include reference transmitter, clearance transmitter, adjust RF power ratios at APCU, waveform analysis, RF phasing, antenna system, monitor input signals, monitor performance checks, pre-flight inspections, remote status indicator, and control unit.

**Prerequisites: None**  
**And one of the following: None**

**88757 ILS, Wilcox Mark 1F MKR FA-9930/9937 (NP57)**

Training Manager: AMA-420 Course Length: 5 hour(s)  
The exam tests proficiency in the Mark 1F Marker Beacon Station Type, FA-9930/9937. Subjects include transmitter adjustments, antenna system, monitor alarms, simulated flight inspection, and remote status indicator.

**Prerequisites: None**  
**And one of the following: None**

**88762 ILS, Wilcox Mark 1D/1E LOC FA-9350/FA-9700 (NP62)**

Training Manager: AMA-420 Course Length: 8 hour(s)  
The exam tests proficiency in the Mark 1D/1E Localizer, Type FA-9350/FA-9700. Subjects include transmitter, identification modulation, waveform analysis, RF phasing, antenna system, monitor adjustments, ground check, flight inspection, remote monitor receiver alarm, and test equipment.

**Prerequisites: None**  
**And one of the following: None**

**88763 ILS, Wilcox Mark 1D/1E NRGs, FA-9365/FA-9715 (NP63)**

Training Manager: AMA-420 Course Length: 8 hour(s)  
The exam tests proficiency in the Mark 1D/1E Null Reference Glideslope, Type FA-9365/FA-9715. Subjects include transmitter, waveform analysis, RF phasing, antenna system, monitor adjustments, flight inspection, and remote monitor receiver alarm.

**Prerequisites: None**  
**And one of the following: None**

**88764 ILS, Wilcox Mark 1D/1E SBRGS, FA-9367 (NP64)**

Training Manager: AMA-420 Course Length: 10 hour(s)  
The exam tests proficiency in the Mark 1D/1E Sideband Reference Glideslope, Type FA-9367. Subjects include transmitter, waveform analysis, distribution unit, RF phasing, detector location (sideband reference), antenna system, monitor adjustments, and flight inspection.

**Prerequisites: None**  
**And one of the following: None**

**88765 ILS, Wilcox Mark 1D/1E CEGS, FA-9366/FA-97XX (NP65)**

Training Manager: AMA-420 Course Length: 10 hour(s)  
The exam tests proficiency in the Mark 1D/1E Capture Effect Glideslope. Subjects include reference transmitter, clearance transmitter, adjust RF power ratios at APCU, waveform analysis, RF phasing, antenna system, monitor adjustment, monitor performance checks, flight check, and remote status indicator.

**Prerequisites: None**  
**And one of the following: None**

**88766 ILS, Wilcox Mark 1D/1E Markers, FA-938X/FA-972X (NP66)**

Training Manager: AMA-420 Course Length: 5 hour(s)  
The exam tests proficiency in the Mark 1D/1E Markers, Types FA-938X/FA-972X. Subjects include transmitter, modulation measurements, antenna and transmission line, monitor alarm, check automatic transfer/shutdown function, simulated flight check, and actual flight check.

**Prerequisites: None**  
**And one of the following: None**

**88770 ILS, Mark 1B, MKR FA-8603 (NP70)**

Training Manager: AMA-420 Course Length: 5 hour(s)  
The exam tests proficiency in the Mark 1B Marker, Type FA-8603. Subjects include transmitter, modulation level, modulation frequency, identification keying, transmission line VSWR, antenna and transmission line insulation resistance, monitor alarm, and simulated flight check.

**Prerequisites: None**  
**And one of the following: None**

## 88771 Null Reference Glideslope (General) (NP71)

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in general null reference glideslope. Subjects include transmitter, modulation measurements, sideband generator, harmonic distortion, antenna system, analysis of waveform distortion, antenna bridge balance, detector location, monitor adjustments, RF phasing, and flight inspection.

**Prerequisites:** None  
**And one of the following:** None

## 88772 Sideband Reference Glideslope (General) (NP72)

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the general Sideband Reference Glideslope. Subjects include transmitter, modulation Measurements, sideband generator, harmonic distortion, antenna system, analysis of waveform distortion, antenna bridge balance, detector locations, system phasing, monitor, RF phasing, and flight inspection.

**Prerequisites:** None  
**And one of the following:** None

## 88773 Capture Effect Glideslope (General) (NP73)

Training Manager: AMA-420 Course Length: 10 hour(s)

The exam tests proficiency in the general Capture Effect Glideslope. Subjects include power supply adjustments, course transmitter, clearance transmitter, modulator, analysis of waveforms distortion, antenna distribution and transmission, near-field monitor, width and clearance recombination circuits, monitor adjustments, and flight inspection.

**Prerequisites:** None  
**And one of the following:** None

## 88774 Cardion DME Ground Station Effect, Type FA-9639 (NP74)

Training Manager: AMA-420 Course Length: 5 hour(s)

The exam tests proficiency in the Cardion Distance Measuring Equipment Ground Station Effect, Type FA-9639. Subjects include ground station and DME monitor.

**Prerequisites:** None  
**And one of the following:** None

## 88778 Second Generation VORTAC RMC-F FA-9996/7 (NP78)

Training Manager: AMA-420 Course Length: 2 hour(s)

This exam tests proficiency on the second generation VORTAC RMC-F, Type FA-9996/7. Subjects include RMC-F operation.

**Prerequisites:** None  
**And one of the following:** None

## 88779 Second Generation VORTAC DME/TACAN FA-9996/3 (NP79)

Training Manager: AMA-420 Course Length: 6 hour(s)

This exam tests proficiency on the Second Gen VORTAC DME/TACAN, Type fa9996/3. Subjects include transponder monitor, TACAN only, and flight check.

**Prerequisites:** None  
**And one of the following:** None

## 88780 Second Gen VORTAC Antenna Speed Controls (NP80)

Training Manager: AMA-420 Course Length: 2 hour(s)

This exam tests proficiency on the second generation VORTAC RTA-2 Antenna Speed Controls, Type FA-6247, FA-6238, and low-power TACAN Antenna Speed Controls, Type FA-10369. Subjects include Antenna Speed Control RTA-2, Type FA-6247 and FA-6238 and low-power TACAN Antenna, Type FA-10349.

**Prerequisites:** None  
**And one of the following:** None

## 88781 Endfire Glideslope Antenna System (NP99)

Training Manager: AMA-420 Course Length: 16 hour(s)

This exam tests proficiency in the calibration, alignment, and certification of the Mark 1F or Mark 20 transmitter systems, endfire glideslope array, monitor alarms, and flight inspection.

**Prerequisites:** 47709  
**And one of the following:** None

## 88782 ILS, Wilcox CAT III LOC FA-9759 (NP82)

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Category III Localizer, Type FA-9759. Subjects include course transmitter (FA-9759/4), identification modulation, clearance transmitter (FA-9759/3), identification modulation, waveform analysis, phasing, antenna system, monitor adjustments, remote control unit, FFM, ground check, and flight inspection.

**Prerequisites:** None  
**And one of the following:** None

## **88783 ILS, Wilcox CAT III MKR FA-9761 (NP83)**

Training Manager: AMA-420 Course Length: 5 hour(s)

The exam tests proficiency in the category III Marker Beacon Subsystem, Type FA-9761. Subjects include power supply, transmitter, modulation measurements, antenna and transmission line, monitor alarm, simulated flight check, and actual flight check.

**Prerequisites:** None  
**And one of the following:** None

## **88784 ILS, Wilcox CAT III NRGS FA-9760/5 (NP84)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Category III Null Reference Glideslope, Type FA-9760/5. Subjects include transmitter, waveform analysis, RF phasing, detector location (null reference), antenna system, monitor adjustments, remote control unit, and flight inspection.

**Prerequisites:** None  
**And one of the following:** None

## **88785 ILS, Wilcox CAT III CEGS FA-9760 (NP85)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Category III Capture Effect Glideslope, Type FA-9760. Subjects include transmitters, modulator characteristics, audio phasing, antenna system, monitor alarm points, and flight inspection.

**Prerequisites:** None  
**And one of the following:** None

## **88789 Localizer With V-Ring Antenna Array (NP88)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the localizer with V-ring antenna array. Subjects include transmitter adjustments, 1020 Hz oscillator adjustment, time delay relays, modulation levels, monitor alarm limits, sideband generator tuning and adjustment, modulation bridge (bridge unbal), hybrid bridge (bridge unbal), test equipment adjustment, antenna bridge, course alignment, course width, phasing, V-Ring monitoring, and flight check.

**Prerequisites:** None  
**And one of the following:** None

## **88790 Localizer with Alford 8-Loop Antenna System (NP89)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Localizer with Alford 8-Loop Antenna System. Subjects include transmitter adjustments, 1020 Hz oscillator adjustment, time delay relays, modulation levels, monitor alarm limits, sideband generator tuning and adjustment, modulation bridge (bridge unbal), hybrid bridge (bridge unbal), test equipment adjustment, antenna array, course structure, phasing, and flight check.

**Prerequisites:** None  
**And one of the following:** None

## **88791 Localizer With Traveling Wave Antenna (TWA) System (NP90)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the localizer with Traveling Wave Antenna System. Subjects include transmitter adjustments, 1020 Hz oscillator adjustment, time delay relays, modulation levels, monitor alarm limits, sideband generator tuning and adjustment, modulation bridge (bridge unbal), hybrid bridge (bridge unbal), test equipment adjustment, antenna distribution, course alignment, course width, phasing, TWA monitoring, and flight check.

**Prerequisites:** None  
**And one of the following:** None

## **88792 Localizer With Waveguide Antenna Array (NP91)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the localizer with waveguide antenna array. Subjects include transmitter adjustments, 1020 Hz oscillator adjustment, time delay relays, modulation levels, monitor alarm limits, sideband generator tuning and adjustments, modulation bridge (bridge unbal), hybrid bridge (bridge unbal), test equipment adjustment, RF frequency, phasing, antenna slot currents, antenna bridge, RF null on waveguide, course alignment, course width, ground check with PIR, monitor system, and flight check.

**Prerequisites:** None  
**And one of the following:** None

## **88793 Butler DME Model 1020 (NP92)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Butler DME Model 1020. Subjects include monitor and transponder.

**Prerequisites:** None  
**And one of the following:** None

## **88794 Wilcox Model 596B/C DME (NP93)**

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in the Wilcox model 596B DME. Subjects include transponder, monitor, and control unit.

**Prerequisites:** None  
**And one of the following:** None

## **88795 Non-Directional Beacon (NDB) Nautel NX 8000BD-02-01 (NP94)**

Training Manager: AMA-420 Course Length: 10 hour(s)

The exam tests proficiency in the Non-directional beacon (NDB) Nautel NX 8000BD-0201. Subjects include transmitter adjustments, monitor, antenna safety gap adjustment, transmission line leaking/resistance, antenna tuning unit, and flight check requirements.

**Prerequisites:** None  
**And one of the following:** None

## **88796 LF/MF NDB Scientific Radio System, Type FA-9589/9591 (NP95)**

Training Manager: AMA-420 Course Length: 14 hour(s)

The exam tests proficiency in the LF/MF NDB Scientific Radio System, Type FA-9589/9591. Subjects include transmitter type FA-9589 indicator verifications, power disconnect procedure, visual inspection, check site sensors, power reconnect procedure, check condition of internal batteries with the IOT, modem alignment procedures, facility central processor unit (FCPU), monitor/executive monitor, modulator/power amplifier/ATU electronics assembly, transmitter verification tests, monitor receiver FA-9591, and flight check requirements.

**Prerequisites:** None  
**And one of the following:** None

## **88798 Third Gen VOR/DEM VOR Portion (NP97)**

Training Manager: AMA-420 Course Length: 1 hour(s)

This examination tests proficiency in VOR portion of the Third Gen VOR/DME Equipment, Type FA-10391.

**Prerequisites:** 40286  
**And one of the following:** None

## **88802 ARSR-1/2 Transmitter/Receiver Site (RP3)**

Training Manager: AMA-440 Course Length: 12 hour(s)

The exam tests proficiency in the ARSR-1/2 Transmitter/Receiver System. Subjects include voltage regulator check, system timing, bite alignment, transmitter adjustments, normal receiver checks, video integrator adjustments, MTI receiver checks, stagger/destagger adjustments, stalo/AFC, radar set control, checks during flight check or simulated flight check, APG measurements, power supplies FA-9492/9493, air compressor checks, and use of facility draw ings.

**Prerequisites:** None  
**And one of the following:** None

## **88806 UPX-14 (RP6)**

Training Manager: AMA-440 Course Length: 8 hour(s)

The exam tests proficiency in the UPX-14. Subjects include power supply alignment, power supply performance test and meter readings, transmitter alignment (low power only), transmitter performance Navships 93520(A) test (low power only), receiver alignment, receiver performance test Navships 93520(A), remote switching control, and defruiter Type MX-8757.

**Prerequisites:** None  
**And one of the following:** None

## **88807 UPX-6/GPX-9B (RP7)**

Training Manager: AMA-440 Course Length: 8 hour(s)

The exam tests proficiency in the UPX-6/GPX-9B. Subjects include transmitter adjustments, receiver adjustments, pulse form restorer, electrical synchronizer, coder-decoder control, and coder-decoder group.

**Prerequisites:** None  
**And one of the following:** None

## **88834 ARSR-1/2 Indicator Site (RP24)**

Training Manager: AMA-440 Course Length: 4 hour(s)

The exam tests proficiency on the ARSR-1/2 indicator system. Subjects include console initial adjustments, console performance tests and adjustments, indicator performance checks, overall minimum discernible signal, and video mapper performance test.

**Prerequisites:** None  
**And one of the following:** None

## **88841 FPS-65A (RP31)**

Training Manager: AMA-440 Course Length: 16 hour(s)

The exam tests proficiency in the FPS-65 Radar System. Subjects include utility power supply, Stalo O-315/FPS-20, Coho o-374/FPS-20, radar modulator, performance testing transmitter drive circuits, buffer-mixer, power distribution cabinet, dual high voltage power supplies, dual modulator drivers, dual modulator, power amplifier cabinet, alignment of IPA and HV pulses, radar set control, receiver system, power supplies check and adjust, MTI receiver adjustments, STC generator, MTI cancellation system adjustment, radar performance monitor, antenna system, VSWR, use of facility drawings, NAS interface modification, and video processing modification.

**Prerequisites: None**  
**And one of the following: None**

## 88842 FPS-66/67 (RP32)

Training Manager: AMA-440 Course Length: 16 hour(s)

The exam tests proficiency in the FPS-66/67 Radar System. Subjects include Stalo; Coho; radar modulator; performance testing, transmitter drive circuits, buffer-mixer; power distribution cabinet; modulator driver; power amplifier cabinet; radar set control; receiver system; MTI receiver and channel divider wide-band section tuning; MTI cancelers; STC generator; receiver and canceler cabinet; power supplies check and adjustment; antenna system; VSWR; use of facility drawings; NAS interface modification; and video processing modification.

**Prerequisites: None**  
**And one of the following: None**

## 88843 ATCBI-4 (RP33)

Training Manager: AMA-440 Course Length: 7 hour(s)

This exam tests proficiency in the ATCBI-4 Type FA-8470. Subjects include coordination with AT, transmitter section adjustments, receiver section adjustments, control and transfer unit FA-8474, line compensator adjustment FA-8477, digital defrutier MX-8757, antenna, and ATCRBS five-foot FA-9764.

**Prerequisites: None**  
**And one of the following: None**

## 88845 ASR-7/e/f Radar Site FA-8200 (RP35)

Training Manager: AMA-450 Course Length: 10 hour(s)

This exam tests proficiency in radar system concepts; moving target indicator (MTI); timing; magnetron transmitter; solid-state receiver; microprocessor controlled sensitivity time control (STC); and range-azimuth gating of antenna beam switching/video gating.

**Prerequisites: None**  
**And one of the following: None**

## 88850 Common Digitizer (CD), FYQ-47/49 (RP40)

Training Manager: AMA-440 Course Length: 12 hour(s)

This exam tests proficiency in the FYQ-47/49 Common Digitizer System. Subjects include system parameters, system analysis, power supply adjustment, maintenance tests, RCU testing, height finder processing group, and card tester utilization.

**Prerequisites: None**  
**And one of the following: None**

## 88851 FPS-90/FPS-6/FPS-116 (RP41A)

Training Manager: AMA-440 Course Length: 16 hour(s)

This exam tests proficiency in the FPS-90, FPS-6, or FPS-6 Radar Systems. Subjects include general procedures, antenna, transmitter-modulator, pressurizer-dehydrator (HD-187), heat exchanger (HD-188) checks and service, receiver (OA-357/2037/2039), Antenna Positioning System, and Range-Height Indicator (RHI) System.

**Prerequisites: None**  
**And one of the following: None**

## 88858 ASR-8 Transmitter Site FA-9335 (RP48)

Training Manager: AMA-450 Course Length: 22 hour(s)

This exam tests proficiency in the ASR-8. Subjects include system concepts, system timing, Klystron transmitter, normal receiver, Digital Moving Target Indicator System, sensitivity time control, Diversity Antenna System, control circuits.

**Prerequisites: None**  
**And one of the following: None**

## 88863 ATCBI-5 (RP53)

Training Manager: AMA-440 Course Length: 10 hour(s)

This exam tests proficiency in the ATCBI-5. Subjects include coordination with AT, pulse mode generator FA-9405, transmitter section adjustments, receiver section adjustments, control and transfer unit FA-9403, line driver FA-9406, line compensator FA-9407, antenna, and ATCRBS five-foot FA-9764.

**Prerequisites: None**  
**And one of the following: None**

## 88865 AN/GPN-21 ASR-8 Radar Site (RP55)

Training Manager: AMA-450 Course Length: 10 hour(s)

This exam tests proficiency in the AN/GPN-21 ASR-8 transmitter site. Subjects include coordination with AT, controls and indicators, power,

transmitter, receiver, processor, MTI cancellation, built-in test equipment, power supplies, antenna alignment, RAG alignment, APG alignment, and Unit 9.I

**Prerequisites:** None  
**And one of the following:** None

## **88868 RCL Low Density Terminal or Repeater Equipment (RP58)**

Training Manager: AMA-440 Course Length: 16 hour(s)

The exam tests proficiency in the RCL repeater. Subjects include RCL battery plant adjustments, receiver (frequency diversity), receiver (frequency/space diversity), transmitter, station-to-station performance test, ANMS satellite diagnostic procedure, Granger checks and adjustment, antenna path alignment, and dehydrator-air compressor checks. This equipment is non-certifiable.

**Prerequisites:** None  
**And one of the following:** None

## **88877 ASR-4 Display System FA-4800 (RP67)**

Training Manager: AMA-450 Course Length: 6 hour(s)

**Prerequisites:** None  
**And one of the following:** None

## **88881 TML-3 Microwave Transmitter FA-9797 (RP71)**

Training Manager: AMA-440 Course Length: 3 hour(s)

This exam tests proficiency in the TML-3 Microwave Transmitter Type FA-9797. Subjects include coordination with AT, transmitter familiarity, adjustments and measurements, pressurization system, path attenuation, and system gain.

**Prerequisites:** None  
**And one of the following:** None

## **88882 TML-3 Microwave Receiver FA-9798 (RP72)**

Training Manager: AMA-440 Course Length: 3 hour(s)

This exam tests proficiency in the TML-3 Microwave Receiver Type FA-9798. Subjects include coordination with AT, receiver familiarity, adjustments and measurements, overall system gain adjustment, system pressurization, and path attenuation.

**Prerequisites:** None  
**And one of the following:** None

## **88883 Video Mapper Group AN/GPA-131(V) (RP73)**

Training Manager: AMA-450 Course Length: 2 hour(s)

This exam tests proficiency in the video mapper group AN/GPA-131(V). Subjects include coordination with air traffic, video mapper adjustments, video mapper performance test, and operation of remote control switch.

**Prerequisites:** None  
**And one of the following:** None

## **88884 Video Mapper Group FA-8049 (RP74)**

Training Manager: AMA-450 Course Length: 2 hour(s)

This exam tests proficiency in the Video Mapper Group FA-8049. Subjects include coordination with air traffic, video mapper adjustments, and video mapper performance test.

**Prerequisites:** None  
**And one of the following:** None

## **88885 Video Mapper Five Channel FA-8970 (RP75)**

Training Manager: AMA-450 Course Length: 2 hour(s)

This exam tests proficiency in the Video Mapper Five Channel Type FA-8970. Subjects include coordination with air traffic, video mapper adjustments, video mapper performance test, and operation of remote control switch.

**Prerequisites:** None  
**And one of the following:** None

## **88886 Television Microwave Link TCM-6 Transmitter (RP76)**

Training Manager: AMA-440 Course Length: 3 hour(s)

This exam tests proficiency in the TML TCM-6 transmitter. Subjects include coordination with AT, transmitter familiarity, adjustments/measurements, video system frequency response, path attenuation, system gain, and system output.

**Prerequisites:** None  
**And one of the following:** None

## **88887 Television Microwave Link TCM-6 Receiver (RP77)**

Training Manager: AMA-440 Course Length: 3 hour(s)

This exam tests proficiency in the TML TCM-6 receiver. Subjects include coordination with AT, receiver familiarity, adjustments/measurements, video system frequency response, path

attenuation, and system output.

**Prerequisites: None**  
**And one of the following: None**

## 88889 ATCBI-3 Indicator Site (RP79)

Training Manager: AMA-440 Course Length: 4 hour(s)

**Prerequisites: None**  
**And one of the following: None**

## 88896 ARSR 60/60m (RP86)

Training Manager: AMA-440 Course Length: 20 hour(s)

This exam tests proficiency in the ARSR 60/60m. Subjects include Stalo O-315/FPS-20, performance testing, transmitter drive circuits, buffer-mixer, power distribution cabinet, modulator driver, power amplifier cabinet, PA modulator, radar set control, parametric amplifier, receiver system, channel divider alignment, MTI cancelers and video amplifier, FTC checks and adjustments, STC generator, azimuth data generator alignment, power supply, log receiver check/adjustment, video gating unit adjustments, integrator adjustments and checks, VSWR, overall broadband sensitivity, Antenna System, use of facility drawings, and NAS interface modification.

**Prerequisites: None**  
**And one of the following: None**

## 88897 FPS-20/91 (RP87)

Training Manager: AMA-440 Course Length: 20 hour(s)

This exam tests proficiency in the FPS-20/91. Subjects include utility power supply, STALO O-315/FPS-20, COHO O-374/FPS-20, radar modulator, performance testing, transmitter drive circuits, buffer-mixer, power distribution cabinet, dual high voltage power supplies, dual modulator drivers, dual modulator, power amplifier cabinet, alignment of IPA and HV pulses, radar set control, receiver system, power supplies check and adjust, MTI receiver adjustments, STC generator, MTI cancellation system adjust, radar performance monitor, Antenna System, VSWR, use of facility drawings, video processing modification, and video processing modification.

**Prerequisites: None**  
**And one of the following: None**

## 88904 Coded Time Source (DP4)

Training Manager: AMA-480 Course Length: 2 hour(s)

This exam tests the proficiency in coded time source. Subjects include coordination, initial set up, manual starting, WWV 'tick' start and

synchronization, CTS functional adjustments, system shutdown, adjustment procedures, and restoration to service.

**Prerequisites: None**  
**And one of the following: None**

## 88905 CDC Display (CDC-D)(DP5)

Training Manager: AMA-470 Course Length: 12 hour(s)

**Prerequisites: None**  
**And one of the following: None**

## 88906 Computer Update Equipment (CUE) (DP6)

Training Manager: AMA-470 Course Length: 6 hour(s)

**Prerequisites: None**  
**And one of the following: None**

## 88908 CDC Processor (CDC-P) (DP8)

Training Manager: AMA-470 Course Length: 10 hour(s)

**Prerequisites: None**  
**And one of the following: None**

## 88916 Direct Access Radar Channel (DARC) Performance (DP-16)

Training Manager: AMA-470 Course Length: 8 hour(s)

This exam tests proficiency in the direct access radar channel (DARC). Subjects include system familiarity, IOT/IP PC, magnetic tape unit, functional system checkout, and system operation.

**Prerequisites: None**  
**And one of the following: None**

## 88919 Maintenance Processor Subsystem (DP18)

Training Manager: AMA-480 Course Length: 12 hour(s)

This exam tests proficiency in the Maintenance Processor Subsystem. Subjects include system familiarity, system configuration, system operations, and diagnostics.

**Prerequisites:** None  
**And one of the following:** None

## 88920 FSAS-AFSS/FSDPS (DP19)

Training Manager: AMA-480 Course Length: 20 hour(s)

This exam tests proficiency in the Automated Flight Service Station (FSS) and Flight Service Data Processing Subsystem (FSDPS). Part I covers the Tandem computer (FSDPS only) and part II covers E Systems (AFSS and FSDPS).

**Prerequisites:** None  
**And one of the following:** None

## 88922 Host Computer System (CCCH) (DP21)

Training Manager: AMA-470 Course Length: 18 hour(s)

**Prerequisites:** None  
**And one of the following:** None

## 88925 Peripheral Adapter Module Replacement Item (PAMRI) (DP24)

Training Manager: AMA-470 Course Length: 4 hour(s)

This exam tests proficiency in the PAMRI. Subjects include PAMRI adapter unit (AU), maintenance console PS/2, modem splitter unit (MSU), and radar data distribution unit (RDDU).

**Prerequisites:** None  
**And one of the following:** None

## 88926 CRAD/CFAD/DRAD (Dp25)

Training Manager: AMA-470 Course Length: 24 hour(s)

This performance exam tests proficiency in composite flight data processing (CFAD), composite radar data processing (CRAD), and direct access radar channel (DARC) radar data processing (DRAD) service certification procedures.

**Prerequisites:** None  
**And one of the following:** None

## 88927 Display Channel Complex Rehost (DCCR) (DP26)

Training Manager: AMA-470 Course Length: 16 hour(s)

This exam tests the technician's ability to perform element certification

of the DCCR processor and display controller (IBM ES9221, Model 170) and service-level certification of the R-console interface module (RIM) switch.

**Prerequisites:** None  
**And one of the following:** None

## 88928 DSR Control Room Hardware Maintenance (DP27)

Training Manager: AMA-470 Course Length: 16 hour(s)

This exam tests proficiency on the Display System Replacement (DSR) control room hardware maintenance. The exam covers maintenance procedures on the main display monitor, main display unit, primary channel processor, console display generator, power distribution unit, loudspeaker, panel assembly, console light assembly, backlit chart holder, flight strip bay lamps, flight strip printer, 15-inch monitor, keyboard breakout box, and M&C Position 4232 printer.

**Prerequisites:** None  
**And one of the following:** None

## 88929 Central Computer Complex HOST (CCCH) System (DP28)

Training Manager: AMA-470 Course Length: 18 hour(s)

This exam tests proficiency in the Central Computer Complex HOST (CCCH) system. The exam covers system performance checks, CCCH System requirements, and tasks required to certify the system, including coordination of the release of all floor replaceable units with air traffic through the AMCC/MCC. Technicians currently holding certification authority and responsibility for CCCH need only to complete steps 1, 2, 4.H. - 4.M. Technicians not holding certification authority and responsibility for CCCH must complete the entire exam.

**Prerequisites:** None  
**And one of the following:** None

## 88930 HNL (Dp29)

Training Manager: AMA-480 Course Length: 5 hour(s)

This exam tests performance on the Host Interface Device/National Airspace System-Local Area Network (HNL). The exam covers system performance checks and HNL system requirements, including Host Interface Device (HID), network system monitor (NSM), network router, FDDI, concentrator, printer, and ecom.

**Prerequisites:** None  
**And one of the following:** None

## 88932 DSR, Part I, Support Systems (DP31A)

Training Manager: AMA-470 Course Length: 12 hour(s)

This exam tests technical proficiency on the Display System Replacement (DSR) Support Systems. Support systems covered in the exam include console test bench, printer control unit, support equipment, and rack mounted processors.

**Prerequisites:** None  
**And one of the following:** 48244, 43556

## 88933 DSR, Part II, Primary Systems (DP31B)

Training Manager: AMA-470 Course Length: 12 hour(s)

This exam tests technical proficiency on the Display System Replacement (DSR) Primary Systems. Primary systems covered in the exam include the DSR control room maintenance, local area network (LAN), and rack-mounted processors.

**Prerequisites:** None  
**And one of the following:** 48244, 43556

## 88934 DSR, Part III, Backup Systems (DP31C)

Training Manager: AMA-470 Course Length: 12 hour(s)

This exam tests technical proficiency on the Display System Replacement (DSR) backup systems. Backup systems covered in the exam include the backup communications network (BCN) and rack-mounted processors.

**Prerequisites:** None  
**And one of the following:** 48244, 43556

## 88935 Tower Data Link Services, Type 2 (TDLS-2) (Dp32)

Training Manager: AMA-480 Course Length: 12 hour(s)

This exam tests proficiency on the Tower Data Link Services, Type -2 (TDLS-2) System.

**Prerequisites:** 40422  
**And one of the following:** None

## 88936 ODAPS and OFDPS (DP33)

Training Manager: AMA-470 Course Length: 14 hour(s)

This performance examination measures the proficiency of the technical specialist on the Oceanic Display and Planning System (ODAPS) and Offshore Flight Data Processing System (OFDPS).

**Prerequisites:** None  
**And one of the following:** None

## 88937 Stand Alone Weather Sensors (SAWS) (DP34)

Training Manager: AMA-480 Course Length: 5 hour(s)

This performance examination measures the proficiency of the technical specialist on the Stand Alone Weather Sensors (SAWS) System.

**Prerequisites:** 40428  
**And one of the following:** None

## 88938 OASIS (DP35)

Training Manager: AMA-480 Course Length: 24 hour(s)

This exam tests proficiency on the Operational Supportability Implementation System (OASIS). Subjects include configuration, system operation, and technical procedures.

**Prerequisites:** None  
**And one of the following:** None

## 88940 User Request Evaluation Tool (URET) System (DP37)

Training Manager: AMA-470 Course Length: 15 hour(s)

This exam tests proficiency on maintaining the URET System. Subjects include control room floor hardware, periodic and corrective maintenance, rack mounted hardware, periodic and corrective maintenance, and site support.

**Prerequisites:** None  
**And one of the following:** 40445, 40446, 49042, 49043

## 88941 Automated Weather Sensors System (AWSS) (DP42)

Training Manager: AMA-480 Course Length: 5 hour(s)

This exam tests proficiency in the following areas of the AWSS; coordination procedures, OID terminal operations, present weather sensor, wind speed and direction, temperature and dew point visibility, day/night sensor, precipitation, ceilometer, barometric pressure, FDCU performance, TDAU checks, and maintenance and certification procedures.

**Prerequisites:** None  
**And one of the following:** None

## 88942 ACE-IDS Remote Workstation Hardware Maintenance (DP38)

Training Manager: AMA-480 Course Length: 2 hour(s)

This exam tests proficiency on the ACE-IDS remote workstation.

Subjects include data and power flow, operational status check, monitor and maintenance software, preventative maintenance procedures, removal and replacement procedures.

**Prerequisites:** None  
**And one of the following:** 40439, 40442

## 88943 Enroute Gateway Communication System (DP39)

Training Manager: AMA-470 Course Length: 8 hour(s)

This exam tests proficiency on the ECG System. Subjects covered are monitoring of the ECG System, maintenance of the ECG System to the lowest replaceable unit (LRU) level, administration of the ECG System, logging in/out of the ECG System, isolating and reintroducing devices, system diagnostics and troubleshooting, controlling device power, monitoring the ECG System, and administering the ECG file and drive Systems.

**Prerequisites:** None  
**And one of the following:** 40448, 40449, 49272, 49273

## 88944 ATOP Hardware Maintenance (DP40)

Training Manager: AMA-470 Course Length: 16 hour(s)

This exam tests proficiency on the Advanced Technologies and Oceanic Procedures (ATOP) hardware maintenance. Subjects include test bench operations, power up and power down procedures, operational status check, monitor and maintenance software, preventative maintenance procedures, diagnostic routines, removal and replacement procedures.

**Prerequisites:** None  
**And one of the following:** 48381

## 88945 ATOP NAS/NOM Maintenance (DP41)

Training Manager: AMA-470 Course Length: 4 hour(s)

This exam tests proficiency on the Advanced Technologies and Oceanic Procedures (ATOP) as used by the NAS/NOM's. Subjects include power up and power down procedures, operational status check, monitor and maintenance software including simulations, certification procedures, printer and tape storage operations.

**Prerequisites:** None  
**And one of the following:** 48379

## 89000 Automated Radar Terminal System IIA, Type FA-9020 (RP90)

Training Manager: AMA-460 Course Length: 40 hour(s)

This exam tests proficiency on the ARTS IIA Type FA-9020. Subjects

include system familiarity, radar, beacon, video map, ARTS interface, acquisition processing cabinet (APC), data entry and display subsystem (DEDS), teletype (ASR-43, Paradyne Modem/Multiplexer, system operation, agency orders and NAS documents.

**Prerequisites:** None  
**And one of the following:** None

## 89001 Automated Radar Terminal System (ARTS) IIIA (RP91)

Training Manager: AMA-460 Course Length: 60 hour(s)

This exam tests proficiency in the ARTS IIIA. The seven options tested in the exam include the ARTS IIIA System, input/output processor, memory CMA, RFDU, operational program, system performance, SRAP, digital sweep generator, DEDS/MDBM, modem, peripheral adapter module, disk control unit, disk drive unit, medium speed printer, radar/ARTS IIIA interface, and card reader.

**Prerequisites:** None  
**And one of the following:** None

## 89002 RCL High Density Terminal Facility Equipment (RP92)

Training Manager: AMA-440 Course Length: 40 hour(s)

The exam tests proficiency in the RCL high density terminal facility equipment. Subjects include RCL power plant, FR8 Microwave Radio System, DTL 7300 multiplexing system, Coastcom channel bank, Fairchild M505M microwave modem, and the ACORN Network Control System.

**Prerequisites:** None  
**And one of the following:** None

## 89003 SSR/DMTI for ARSR 1/2, ARSR 60, and FPS 20 (RP93)

Training Manager: AMA-440 Course Length: 10 hour(s)

This exam tests the proficiency in the SSR/DMTI for ARSR 1/1, ARSR-60, and FPS-20. Subjects include BITE, controls and fault indicators, power supply checks/adjustments, DMTI BITE tests, signal generator calibration, fault led and lamp test circuits, MDS check, MTWlog, video output levels, cancellation ratio, receiver video alignment, STC generator adjustment, range correlation of STC voltage, TR recovery time, MTI subclutter visibility test, dynamic range of receiver, STALO adjustments and checks, COHO checks and adjustments, PRF trigger timing and distribution, RF monitor adjust, and video distribution adjustments.

**Prerequisites:** None  
**And one of the following:** None

## 89004 Air Route Surveillance Radar (ARSR)-3 (RP94)

Training Manager: AMA-440 Course Length: 4 hour(s)

This exam tests proficiency in the Air Route Surveillance Radar (ARSR)-3 Type FA-9200.

**Prerequisites: None**  
**And one of the following: None**

## 89005 ASR-9 System (RP95)

Training Manager: AMA-450 Course Length: 51 hour(s)

This exam tests proficiency in the Airport Surveillance Radar (ASR)-9. Subjects include general information, receiver/processor unit 2/5 FA-10067/68, transmitter channel A/B unit 1/6 FA-10065, weather receiver/SCIP unit 4 FA-100079, antenna assembly rotary joint unit 8 FA-10082, pedestal unit 9 FA-10083, radar antenna unit 10 FA-10081, antenna control unit 11 FA-1008, remote SCIP unit 22 FA-10087, dual remote SCIP unit 24 FA-10091, remote monitoring system unit 3 FA-10078, and maintenance display unit 7 FA-10080.

**Prerequisites: None**  
**And one of the following: None**

## 89006 Common Digitizer-2A/B/C/D FA-9971/72/73/74 (RP96)

Training Manager: AMA-440 Course Length: 8 hour(s)

This exam tests proficiency in the Common Digitizer (CD)-2A/B/C/D. Subjects include inputs, outputs, digital sensitivity, system accuracy/timing, performance standards test, and operational parameter/functions.

**Prerequisites: None**  
**And one of the following: None**

## 89007 Digital Bright Indicator Tower Equipment (DBRITE) (RP97)

Training Manager: AMA-460 Course Length: 6 hour(s)

This exam tests proficiency in the digital bright indicator tower equipment (DBRITE). Subjects include display, DSC, overall system checks, built-in-test (BIT), and return system to normal operation.

**Prerequisites: None**  
**And one of the following: None**

## 89008 Solid State Radar Beacon Decoder (SSRBD) (RP98)

Training Manager: AMA-440 Course Length: 4 hour(s)

This exam tests proficiency in the solid state radar beacon decoder (SSRBD). Subjects include AC power conditioner assembly, DC converter assembly alignment, input/output circuit card assembly alignment, timing analysis circuit card assembly (CCA) alignment, output CCA alignment, decoder control assembly (DCA), and verify that the SSRBD is operating within tolerance.

**Prerequisites: None**  
**And one of the following: None**

## 89009 Terminal Doppler Weather Radar (RP99)

Training Manager: AMA-440 Course Length: 15 hour(s)

This exam tests proficiency in the TDWR site entry, system MDT logon/logoff, TDWR System, radar product generator/remote and BDD, and safety. Study references are TI's 6560.22, 6560.24, 6560.31, 6560.32, 6560.60, and 6310.20.

**Prerequisites: None**  
**And one of the following: None**

## 89010 AN/FPS-117 Minimally Attended Radar (MAR) (RP100)

Training Manager: AMA-440 Course Length: 40 hour(s)

This exam tests proficiency in system coordination, power distribution, performance checks, transceiver group, beacon, operational program, system fault analysis, and printed circuit board/line replaceable unit. Study References are TI's 21P6-2FPS117-2,-3,-21-1, -21-3 thru -6, -23-1 thru -4, -26WC-1, TI31S5-4-1516-1, and -13.

**Prerequisites: None**  
**And one of the following: None**

## 89011 ARSR-4 (RP101)

Training Manager: AMA-440 Course Length: 16 hour(s)

This exam tests proficiency in system performance checks and maintenance tasks. Study References are order 6340.xx and TI's 6340.23, 6430.24, and 6340.29 thru 6340.38.

**Prerequisites: None**  
**And one of the following: None**

## 89012 ARTS IIE Type FA-9020/A (RP102)

Training Manager: AMA-460 Course Length: 60 hour(s)

This exam tests proficiency on the enhanced ARTS IIE Type FA-9020/A System. The exam covers aircraft accident procedures coordination with air traffic for release and return of equipment, system familiarity, system operation, and system performance checks and maintenance tasks.

**Prerequisites:** None  
**And one of the following:** None

## 89013 Automated Radar Terminal System III E (Enhanced) (RP103)

Training Manager: AMA-460 Course Length: 75 hour(s)

This exam tests proficiency on the enhanced ARTS III E System. The exam is divided into two parts and covers aircraft accidents, coordination with air traffic for system release, common processor, tracking processor, ARTS Gateway, remote display multiplexer, radar/ARTS interface, system reconfiguration, CDR maintenance (local option), program version loading, ARTS III E overall system certification, subsystem interface, DIPS, FDAD, operation, and DIPS certification.

**Prerequisites:** None  
**And one of the following:** None

## 89014 Mode Select (Mode-S) Beacon System (RP104)

Training Manager: AMA-450 Course Length: 40 hour(s)

This exam tests proficiency on the Mode-S Beacon System. Subject areas covered in the exam include aircraft accident procedures, coordination, facility drawings, system function and operation, interrogator function and operation, DPS, software maintenance functions, CPME, RIT computer, and antenna checks.

**Prerequisites:** None  
**And one of the following:** None

## 89015 Micro-EARTS (RP107)

Training Manager: AMA-460 Course Length: 16 hour(s)

This performance examination measures proficiency of the technical specialist on the Micro-EARTS.

**Prerequisites:** 40607  
**And one of the following:** None

## 89016 Airport Surface Detection Equipment (ASDE-3) (RP105)

Training Manager: AMA-440 Course Length: 12 hour(s)

This performance examination measures proficiency of the technical specialist on the Airport Surface Detection Equipment (ASDE-3) System.

**Prerequisites:** None  
**And one of the following:** 40609, 40381

## 89017 AMASS and TAIU (RP106)

Training Manager: AMA-440 Course Length: 12 hour(s)

This performance examination measures proficiency of the technical specialist on the Airport Movement Area Safety System (AMASS) and the Terminal Automation Interface Unit (TAIU) associated with the ASDE-3 System.

**Prerequisites:** None  
**And one of the following:** 40345, 40609

## 89018 Weather System Processor (WSP) (RP107)

Training Manager: AMA-450 Course Length: 6 hour(s)

This performance examination measures the proficiency of the technical specialist on the weather system processor (WSP).

**Prerequisites:** 40611  
**And one of the following:** None

## 89022 Air Traffic Control Beacon Interrogator-6 (ATCBI-6) (RP112)

Training Manager: AMA-450 Course Length: 10 hour(s)

This examination tests proficiency on the Air Traffic Control Beacon Interrogator (ATCBI-6) System including: general operations; performance checks (transmitter, receiver, antenna, signal processor, control and monitor system, and the monopulse remote site monitor); and removal and replacement procedures.

**Prerequisites:** 42063, 44330  
**And one of the following:** None

## 89023 Airport Surface Detection - Model X (ASDE-X) (RP113)

Training Manager: AMA-440 Course Length: 12 hour(s)

This exam tests proficiency on the ASDE-X System. Subjects include system health status, primary detection (SMR), secondary detection, fixed target verification, and display capability.

**Prerequisites:** 48356  
**And one of the following:** None

## 89024 ASR-11 System (RP114)

Training Manager: AMA-450 Course Length: 54 hour(s)

This exam tests proficiency in the Airport Surveillance Radar (ASR)-11. Subjects include general information, PSR/MSSR 1 receiver, transmitters, common equipment cabinet, antenna pedestal, surveillance data translator, digital video generator, control and

maintenance console.

**Prerequisites:** 42069, 44329  
**And one of the following:** None

## 89801 DME ASII Model 1118 (NP101)

Training Manager: AMA-420 Course Length: 6 hour(s)

This exam tests proficiency on the Distance Measuring Equipment (DME) ASII Model 1118 covering systems with enhanced remote maintenance monitoring (ERMM) and without ERMM. Subjects include operational requirements, measurement, module alignment, and certification requirements.

**Prerequisites:** None  
**And one of the following:** None

## 89803 Wide Area Augmentation System (WAAS) (NP103)

Training Manager: AMA-420 Course Length: 12 hour(s)

This exam is in two sections: Section A for operators and Section B for maintainers. Section A, operator is 12 hours, Section B.1 O&M maintainer is 3 hours, Section B.2 WMS maintainer is 4 hours, and Section B.3 WRS maintainer is 4 hours. This exam tests proficiency in maintaining the WAAS Type FA-1400X. Subjects include verification, status, performance, and maintenance of WAAS, O&M, WMS, and WRS.

**Prerequisites:** None  
**And one of the following:** 40293, 40294, 40295, 40296

## 89804 VHF Omni-Range Test Facility (VOT) for FA-10235 (NP104)

Training Manager: AMA-420 Course Length: 6 hour(s)

This exam tests proficiency for engineers and AF technicians on the VHF Omni-Range Test (VOT) Facility, FA-10235. Subjects include safety and system operations, test equipment setup, system interface, facility coordination, preventive maintenance, trouble-shooting and flight inspection.

**Prerequisites:** 45209  
**And one of the following:** None

## 89805 LLWAS (NP105)

Training Manager: AMA-420 Course Length: 8 hour(s)

This exam tests proficiency in Low Level Windshear Alert System (LLWAS), Type FA-10239 and FA-10240. Subjects include system operation, transmission error count, windshear alarm and centerfield gust threshold, data fail alarm, anemometer checks, transmitter RF

power and VSWR, transmitter frequency deviation, receiver checks, data storage/dump to tape, and calibration standards.

**Prerequisites:** None  
**And one of the following:** None

## 89806 LLWAS NE++ (FA-10387) (NP106)

Training Manager: AMA-420 Course Length: 8 hour(s)

The exam tests proficiency in Low Level Windshear Alert System (LLWAS NE ++), Type FA-10387. Subjects include safety, coordination, runway operations aircraft accident procedures, MMS logging procedures, tracing signal path, transmission error count, GPS connection, all stations comparison, system messages, controller ribbon displays, data fail indications, exchanging master station computers, signal analysis, remote station battery test, remote and master power supply tests, UWS thermocoupler operation, calibration and orientation of the UWS, checking the zip disk files, solar power unit, high mast pole equipment mounting ring, remote station data system address.

**Prerequisites:** None  
**And one of the following:** None