

**ATTACHMENT J.1- SECTION C
STATEMENT OF WORK**

1.0 INTRODUCTION

The Federal Aviation Administration (FAA) has a requirement for the acquisition, implementation, and life cycle in-service support of Uninterruptible Power Systems (UPS). This Statement of Work (SOW) defines the FAA's requirements for life cycle National Airspace Integrated Logistics Support (NAIS) engineering/technical support services, and UPS equipment requirements.

1.1 Background

The Federal Aviation Administration is currently acquiring Commercial Off-The-Shelf/Non Developmental Items (COTS/NDI) UPS equipment. This COTS/NDI approach provides the FAA with the most efficient approach to acquire UPSs. An UPS is required to provide conditioned, uninterruptible electrical power to support critical National Air Space electronic systems.

1.2 Scope

This Statement of Work (SOW) defines the requirements for project management, configuration management, engineering/technical support services, test and evaluation, logistics support, training, and quality control for the UPS being acquired. It also defines the technical support services needed to perform engineering work, installation/construction work for power systems, power systems ancillary equipment, and structures.

2.0 APPLICABLE DOCUMENTS

2.1 Specifications, Standards, and Publications

The Specifications Standards and Publications referenced are part of this SOW to the extent specified. In the event there are conflicts between FAA documents and industry standards, the FAA documentation shall take precedence..

2.2 FAA Specifications

FAA-C-1217	Electrical Work, Interior rev. 1/91
FAA-C-1391	Installation and Splicing of Underground Cables
FAA-D-2494	Technical Instruction Book Manuscript: Electronic, Electrical, and Mechanical Equipment Requirements for preparation of Manuscript and Production Books,

2.3 FAA Standards

FAA-STD-019	Lightning Protection, Grounding, Bonding, and Shielding Requirements for Equipment, rev. 9/85
FAA-STD-020	Transient Protection, Grounding, Bonding, and Shielding Requirements for Equipment.
FAA-STD-028	Contract Training Programs
FAA-STD-032	Standards for National Airspace System Facilities rev. 8/96

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2.4 FAA Orders

1050.10 Prevention, Control and Abatement of
Environmental Pollution at FAA Facilities, rev. 9/95

3900.19B OSHA Safety Regulations

6950.27 Short Circuit Analysis and Protective Device
Coordination Study, rev.10/94

2.5 (Reserved)

2.6 (Reserved)

2.7 Industry Standards

IEEE STD 142 IEEE Recommended Practice for Grounding of
Industrial and Commercial Power Systems (Green Book),

NFPA 70 National Electric Code, 1999

ASTM-D-3951 Standard Practice for Commercial Packaging

EIA/IS 649 National Consensus Standard for Configuration
Management

ISO-9000 Quality Management and Quality Assurance Standards

MIL-HDBK-61 Configuration Management, Appendix A

IBC-2000 International Building Code

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3.0 REQUIREMENTS

The contractor shall furnish the necessary personnel, plant, equipment, facilities, materials, and other necessary resources to produce, test, and deliver the items described in this SOW. All such items shall be supplied in conformance with the terms and conditions of this SOW and the SIR documentation. The contractor shall execute the terms of the negotiated prime contract in accordance with the task/delivery orders and be solely responsible for the administration/management of any of its subcontracts.

3.1 Program Management

The typical Program Management tasks are to include, but are not limited to, the following:

1. Project planning;
2. Performance tracking, workload tracking and forecasting; and
3. Resource management for staffing and training.

The contractor shall designate a single Program Manager (PM) to organize, plan, schedule, implement, control, analyze, and report on all elements of this contract. The PM shall have full responsibility and authority over members of the prime contractor organization and any organization or individual teamed with the prime to support this contract. The PM shall have the necessary resources to ensure efficient, effective and timely accomplishment of all tasks assigned. The PM shall be the focal point within the contractor's organization for all required program efforts. The PM shall be prepared at all times to present and discuss the status of contract activities with the Contracting Officer (CO) and Contracting Officer Technical Representative (COTR). The contractor shall provide all of the necessary technical, strategic planning, managing tasks, schedules, business and administrative planning, organization, direction, coordination, and control (e.g., cost, schedule, performance measurement, contract management, time-phased staffing profile by functional specialty or organization, data management, subcontract management) required to successfully perform all SOW taskings or associated task/delivery orders. The contractor shall also manage and administer submission of all data items required in each task/delivery order.

3.1.1 Program Plan **CDRL: M001 Program Plan**

The contractor shall provide their existing Program Plan, indicating method in which the FAA's work will be functionally integrated into the Contractor's existing management structure.

3.1.2 Program Management Report **CDRL: M002 Program Management Report**

The Contractor shall maintain a spreadsheet of equipment, training and service task orders indicating each projects status. A soft copy of the report is to be e-mailed to the FAA CO or COTR each Friday.

3.1.3 Post Award Conference

The contractor shall participate with Government representatives in a Post Award Conference (PAC) to be held at the contractor's facility or facility designated by the Contracting Officer not later than 30 days after contract award. The conference will be held to thoroughly review the contract and SOW to ensure all parties have a clear understanding of all contractual requirements. The Government shall propose the agenda and record minutes for the post award conference.

3.1.4 Program Management Reviews **CDRL: M003 Conference Support Services**

At the request of the Government, the contractor shall conduct Program Management Reviews (PMR's) to review the contract status in terms of Performance, Schedule, and Cost. For the purposes of pricing, the Government

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will not require more than six (6) unscheduled meetings in a contract year. The CO or the CO's Representative shall notify the contractor at least 20 calendar days in advance of all required briefings and reviews. The list of items to review may include, but not limited to, the following:

1. Accomplishments and shortfalls of performance during the reporting period;
2. Planned activities for the next reporting period;
3. Outstanding action items;
4. Status of work relating to milestones and any near term and long term schedule changes;
5. Financial status comparisons between planned and actual expenditures against the current and projected budgets;
6. Problems and issues;
7. Planned implementation trends, and;

9. Special interest and action items.

The contractor shall document issues, concerns, and action items with planned closure dates, responsible person, planned action to resolve, and any Government action required. The status of all open action items shall be presented at each meeting with planned closure dates, responsible person, planned action to resolve, and any Government action required.

The contractor shall discuss program implementation at the first PMR meeting. The first PMR shall commence no later than 60 days after the Post Award Conference, all program review dates will be designated by the FAA CO or the CO's designated representative. At the request of the Government, the contractor shall be responsible for the preparation of all audio-visual materials, graphic aids and handouts.

3.1.5 Technical Interchange Meetings (TIMs). CDRL: M003 Conference Support Services

The Contractor shall support and participate in TIMs. The purpose of these meetings is to promote a free exchange of ideas between the Contractor and the Government in order to identify and resolve technical problems, and brief the FAA on technical aspects of the project or program. Contractor shall have available the appropriate subject matter experts to respond to Government questions. Unless otherwise stated, all meetings shall be conducted at Government facilities or at the Contractor's facilities, or by teleconference as directed by the Government Contracting Officer. If reviews and briefings are conducted at the Contractor's facility, the Contractor shall make available one separate meeting room with a conference type telephone for use by the Government.

The Contracting Officer shall notify the Contractor of the Government's readiness at least twenty (20) calendar days in advance of the planned start of each TIM. (For the purposes of pricing, the Government will not require more than three (3) TIMs in a contract year.) The Government will prepare and submit to the Contractor an agenda for each TIM. The Government will also prepare minutes and action item list in support of all meetings.

3.2 Quality Control Program CDRL: Q001 Quality Assurance Plan

The Contractor shall provide a copy of their existing Quality Assurance Plan (QAP) for the design, development, evaluation, and furnishing of hardware, software, firmware supplies, services, and associated documentation (including any modification to existing hardware and software). This plan should integrate the FAA's quality control needs into the existing practices without developing a new quality assurance program. The contractor shall conduct its quality assurance program in accordance with the approved QAP.

3.2.1 Factory Equipment Test CDRL: Q002 Equipment Test Report

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The Contractor shall provide a factory test program on equipment, firmware, and control software. The two factory equipment tests are: 1) normal final manufacturing test conducted after equipment assembly and prior to shipping; 2) equipment and/or integrated power systems witness testing conducted in the presence of the designated Government official or representative. The Contractor shall perform the tests at the Contractor's facilities.

3.3 Configuration Management **CDRL: Q003 Contractor's Configuration Management Plan**

The Contractor shall incorporate the FAA into their established configuration management program and reporting system. Where applicable, the contractor in-place Configuration Management Program will use, EIA-649 and MIL-HDBK-61, Appendix A, as guidance, by using the integrated activities of Configuration Identification, Configuration Control, Configuration Status Accounting, and Configuration Audits. A copy of the Configuration Management Plan describing the contractor's Configuration Management Program shall be provided to the Government for review. The Contractor shall specify a point of contact for all communications on CM related issues.

3.3.1 Configuration Identification: The Contractor will have a system to identify Hardware Configuration Items (HWCI), Computer Software Configuration Items (CSCI), and Firmware associated with each UPS production model.

3.3.2 Configuration Control: The Contractor will notify the FAA of any anticipated or scheduled changes to HWCI, CSCI, Firmware, or documentation associated with the UPS using the contractor's established configuration management notification system. The Contractor shall notify the FAA via "E mail" and Formal letter of any "Field Service Bulletins" associated with any UPS procured for the FAA. Access to the information contained within a Field Service Bulletin shall be available from the Vendor's Electronic Bulletin Board.

3.3.3 Configuration Status Accounting: The FAA will utilize the Contractor's Configuration Status Accounting (CSA) system that includes the recording and reporting of baseline data, changes to configuration controlled items and any other items identified in the Configuration Management Plan. CM Changes applicable to UPS units at FAA sites, shall be reported to the FAA within ten working days of vendor engineering changes.

3.3.4 Configuration Audits: The FAA will review the Contractor's established configuration management baseline at a mutually agreed upon time and place. Upon completion of the baseline audit the Contractor will maintain a product baseline for the UPS in conformance with their Configuration Management Plan.

3.4 Commercial Off-the-Shelf Equipment

The UPS shall consist of Commercial-off-the-Shelf /Non-Developmental Item (COTS/NDI) equipment conforming to requirements in "Static Uninterruptible Power Supply Equipment Specification" (UES) found in the contract Section J, Attachment J.2.

3.4.1 Software, Firmware and Documentation Copyright, Development and License Rights:
CDRL: E001 Software Firmware Documentation.

3.4.1.1 The Contractor shall develop or provide Government access to UPS RMM interface software information. This information will be used by the Government to develop FAA RMM system equipment software that interfaces to the UPS.

3.4.1.2 The Government shall have full and complete rights to all system software, system firmware and all supporting documentation. The contractor shall furnish to the government any software or firmware necessary to alter or modify the "application" software. The "executable" source code shall be furnished. The executable code shall be properly annotated and commented. The Government shall have the right to reproduce, copy, alter, use, modify, all data, documentation, software, and firmware. The Government agrees to maintain this data in a

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reasonable secure manner and agrees not to divulge the data to any competitors. The manufacturer shall be required to license the Government to use all applicable software.

3.5 Engineering and Installation Services. This section sets forth the requirements for various task type engineering, installation and construction services relative to support the FAA Facility Power Systems program at NAS facilities located throughout the United States and its territories. These tasks will consist of: complete engineering design services for the site survey, design, site preparation; and construction services for facility modification, equipment implementation, grounding, transient voltage surge suppression (TVSS) , and site testing. The elements contained in this Section may be exercised individually or combined by contract task orders.

3.5.1 Services to be Performed. The engineering and installation services are in direct support of NAS Power Systems. When directed, the Contractor shall provide these services, included but not limited to: installation of engine generators, E.G. fuel systems, UPS, electrical distribution systems; associated power system support equipment such as, power systems control hardware/software, HVAC, physical facility, and lighting; and demolition and disposal of power system equipment.

3.5.2 Tasking. Services to be performed by the Contractor will be assigned on task order basis. These task orders could assign one or more of the tasks outlined in paragraphs 3.5.3, 3.5.4, and 3.5.5 below. The Site Preparation and installation task may be exercised without purchase of power system equipment from the Contractor in the event (Government Furnished Equipment (GFE)) is provided.

3.5.3 Site Survey Task. **CDRL: E002 Site Survey Report**

Scope.— This document sets forth the requirements for various task type site survey services relative the Facility Power Systems program at all FAA National Air Space facilities, staffed or unstaffed, located throughout the United States and its territories. Tasks will consist of a Site survey documented in a Site Survey Report. When directed, the Contractor shall visit the site(s), based on the task order assignment, to verify existing conditions and to become familiar with the existing power system installation configuration and surrounding support environment. The Contractor shall prepare a Site Survey Report. From this Site Survey, preliminary site layouts shall be made and submitted for approval within 15 working days after the visit, unless otherwise directed.

3.5.3.1 Services to be Performed. The site survey shall be in conformance with specific task/delivery orders, which may include some or all of the following. The Contractor shall conduct a survey of existing power system, power system associated equipment, and physical facility for adequacy of exiting equipment and facility to accommodate new power system requirements. The survey shall address, but not be limited to, items (a) through (i) below and as tasked by the FAA; all to be included in the Site Survey Report. This approach examines the existing power system, the facility housing the power system and all supporting equipment as an integrated system. The site survey findings shall be compiled and presented in a Site Survey Report. The Site Survey Report shall contain the following information.

- (a) Site Plan, indicating relationship to related power distribution equipment and facility.
- (b) Architectural floor plan and equipment space layout of power service room(s).
- (c) Power System electrical equipment survey and condition assessment study as a minimum shall include:
 - 1) Engine generators,
 - 2) Engine generator fuel systems,
 - 3) UPS, battery cabinet and top or bottom cable entry,
 - 4) Electrical distribution systems, and Maintenance Bypass
 - 5) Lightning protection grounding bonding and shielding, TVSS
 - 6) Associated power system support equipment, and

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- 7) Power systems control hardware/software.
- 8) The HVAC and duct work to maintain required temperatures of UPS and battery cabinets.
- (d) Electric panel board survey. Essential and critical power panel size and spares availability in relation to proposed work.
- (e) Power Systems HVAC equipment survey, condition assessment, and heating cooling load capacity study.
- (f) Physical facility condition assessment and adequacy for new power equipment installation. This includes architectural, structural, mechanical, plumbing and electrical service.
- (g) Hazardous Material Survey. The Contractor, when assigned the task, shall perform a study for hazardous materials within the area considered for Power System replacement.
- (h) Life Safety survey for presence and adequacy of electrical safety board in compliance with OSHA requirements.
- (i) Preliminary cost estimate of any electrical systems replacement or associated support equipment replacement or facility modifications required to modernize the existing electrical power service.

3.5.4 Engineering Design Task. CDRL: E003 Engineering Design Documents

As directed, the Contractor shall develop the Engineering Design Documents. These documents will be used by the FAA for site preparation, installation, and testing of power systems and associated support equipment. These design services shall include, but are not limited to: installation of engine generators, E.G. fuel systems, UPS, electrical distribution systems; associated power system support equipment such as, power systems control hardware/software, HVAC, physical facility, and lighting; and demolition and disposal of power system equipment. From this point forward, when engineering services are required it shall be understood that the Contractor will be the source for the engineering services.

3.5.4.1 General. Using the Site Survey Report, from paragraph 3.5.3 or one furnished by the Government, combined with a site visit, if necessary, and using applicable sections of FAA-STD-032 and FAA Order 1050.10, the Contractor shall create specifications, drawings, data handbook and cost estimate documents. Typical designs may include all or some of the following elements: E.G.; UPS; power distribution; fuel tank and piping system; ancillary support equipment such as HVAC, lighting, life-safety; and architectural, structural facility modifications required to accommodate the power system replacement.

3.5.4.2 Schedule. The Contractor shall prepare complete Project Design Schedules for the assigned tasks. These schedules shall identify, all required design efforts by the various discipline including on-site surveys, data and drawing collection, testing and sampling, drafting, CAD, plotting and reproduction, design reviews, etc. When multiple project design tasks are underway concurrently, the Contractor shall maintain an overall production schedule, updated monthly for FAA management review.

3.5.4.3 Quality Assurance Provisions. The contractor shall submit an internal review procedures plan and schedule. As a minimum, this plan shall include a tentative list of all documents to be provided, i.e. drawings, calculations, estimates, specifications, etc. This schedule shall include spaces for the initials of the originator and reviewer(s) of each document and the dates (proposed and actual) that they are to be ready for each review. Each drawing sheet, specification section and set of calculations shall be initialed by the originator, and at least one registered professional engineer, as appropriate, other than the originator, prior to its first submittal. Each document shall be rechecked and initialed by at least the same two individuals prior to each subsequent transmittal if it has been revised. The following documents shall be subject to the internal review process:

- (a) Construction drawings (architectural, structural, mechanical, electrical and civil).
- (b) Construction specifications.
- (c) Construction cost estimate(s) (which shall provide all basic cost data for development of the project cost estimate).

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- (d) Design Data Summary Handbook.
- (e) Mechanical/Electrical Systems Instruction Book.
- (f) Standard Facility Designs and Studies

3.5.4.3.1 Professional Engineer Certification. As required, determined on a site-by-site basis, the Contractor or his authorized representative shall sign the original tracings of all drawings and the first page of all specifications, estimates, or similar documents under the Contractor's titled name and over the affixed replica of his/her professional seal or his/her registration certificate number. If the site installation is located in a seismic zone IV or greater all of the structural sheets shall have, in addition, the signature and seal of a professional structural (not civil) engineer.

3.5.4.3.2 Permits. The Contractor shall obtain any federal, state, or local permits that are applicable to the site and task assigned.

3.5.4.4 Civil Requirements. The Contractor shall provide the civil design for the various task assignments. The civil design work will be in direct support of the power system replacement or modification.

3.5.4.5 Architectural Requirements. The Contractor shall provide the architectural design for the various task assignments.

3.5.4.5.1 Interior Space Layouts and Relationship. The Contractor, as assigned, shall develop layouts which utilize space requirements by function in the various equipment and work areas. Appropriate recommendations will be furnished by the FAA for each task assignment.

3.5.4.5.2 Acoustics. The Contractor shall design the power system space acoustic treatment for maximum practicable reduction of the noise generated by the equipment.

3.5.4.5.3 OSHA. The Contractor shall ensure all OSHA requirements are met as it relates to unique power equipment personnel safety items. This includes electrical safety boards, battery testing and handling safety items, and battery fluid containment and safety signs.

3.5.4.5.4 Security - Security features will be furnished by the FAA for each task assignment.

3.5.4.5.5 Fire Protection and Life Safety. The Contractor shall utilize the National Fire Protection Association codes or local building codes to determine fire protection and life safety requirements.

3.5.4.6 Structural Requirements. The Contractor shall make all structural designs in accordance with requirements of the latest edition of the International Building Code or more stringent local building codes, for a specific site, when required. Structural design work is in support of power systems equipment and ancillary support equipment installation.

3.5.4.6.1 Design Loading. For design purposes, the contractor shall determine the design loading (equipment, wind, snow, combination, etc.) in accordance with the International Building Code, unless otherwise directed. Any special loading required for a specific site or standard design will be furnished by FAA.

3.5.4.6.2 Seismic Design Considerations. - The contractor shall incorporate the provision for earthquake resistance into all equipment mounts and applicable structural components designed by the Contractor. The minimum design requirements shall be equivalent to current International Building Code Seismic Zone III provisions. Except as specified otherwise, the prime consideration in the seismic design shall be the life-safety of the occupants and passers-by, due to structural failure of components or equipment, with a secondary consideration of potential fire hazard and continuing the operational mission in the aftermath of earthquake activity.

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3.5.4.6.2.1 Seismic Design Computations. - The contractor computations of seismic design shall at a minimum include stress and deflection analysis of lateral force resisting elements, major architectural appendages, and their connections including the structural frame/diaphragms, parapets, facades, interior partitions, exterior walls/panels, and foundations. Drawings detailing structural systems, architectural components, and connections shall clearly indicate design level of seismic resistivity.

3.5.4.6.2.2 Seismic Zone IV. - A site specific structural design or design review shall be required for all buildings to be located in Seismic Zone IV. All structural documents, prepared for Seismic Zone IV, shall be sealed by a structural engineer registered in a state which includes Seismic Zone IV code requirements.

3.5.4.7 Mechanical Requirements. When tasked, the Contractor shall design mechanical systems or modifications to mechanical systems in support of power systems equipment and ancillary power system support equipment installations. The designs shall satisfy the heating and cooling demand of the power systems room(s), equipment load, electronic loads, for the specific site locations. The scope of the mechanical work shall consist of the load profile analysis, systems design and cost analysis. All pertinent support data, design assumptions, and calculations shall be included in a design data handbook. All HVAC systems shall be as energy efficient as practicable.

3.5.4.7.1 Equipment Loads. The Contractor shall prepare, as required, a mechanical design for each of the following mechanical systems, as applicable to the site installation needs:

- (a) Heating, Ventilating, Air Conditioning.
- (b) Plumbing.
- (c) Domestic Hot and Cold Water.
- (d) Emergency generator(s) and Associated Equipment including transfer switch, fuel system, day tank, battery charger and all transformers.
- (e) Heating, Chilled, and Cooling Water.
- (f) Direct Digital Controls and Instrumentation (pneumatic and solid state).
- (g) Fuel Sources and their distribution systems.
- (h) Fire Detection and Sprinkler Systems.
- (i) Roof Drainage, Storm Drainage, and Foundation drainage.
- (j) Lube Oil Waste Collection System and Tank.
- (k) Ancillary equipment and systems for diesel—generator sets, where required (e.g., piping for fuel, starting air, intercooler water, intake and exhaust, radiator cooling water, engine safety devices, etc.).

3.5.4.7.2 Miscellaneous Mechanical Considerations. The mechanical equipment or systems design shall include water, air, and noise pollution controls consistent with the general requirements of the Federal, state and local Governments.

3.5.4.7.3 Mechanical/Electrical Systems Instruction Book. A system/subsystem description, operations, and maintenance instruction book manuscript shall be prepared by the Contractor, when specified in the task assignment, and delivered with the construction drawings and specifications. The purpose of the handbook is to provide a physical and functional description of the mechanical and electrical systems, subsystems, and interfaces. It is intended that this handbook be a companion to and supplement the design drawings and specifications to provide concise explanations of design intent with regard to system/subsystem configuration, sequence and modes of operation, capabilities, and limitations. The handbook shall be organized and include material in conformance with requirements of that portion of FAA Specification FAA-D-2494/I which governs preparation of Section 1 and 2 of a Type B system/subsystem manuscript instruction book.

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3.5.4.7.4 Mechanical/Electrical Equipment Oriented Instruction Books. The Contractor shall provide for the procurement of instruction books, Contractor data covering use, maintenance of specific end items or units of equipment and subsystems to be installed in the facility. This shall be accomplished by including appropriate requirements for the introduction books and the data in the construction specifications prepared by the Contractor under paragraph 5.3.1. Depending on the nature and complexity of each item of equipment, manufacturer's data shall be specified to cover the following subjects, as applicable:

- (a) Assembly drawing(s) and parts list.
- (b) Procedures for installation, startup and normal operation.
- (c) Recommended periodic maintenance tasks and including schedule procedures for accomplishment of tasks.
- (d) Repair and overhaul procedures and data including:
- (e) Performance data and operations limits (rotations per minute) (RPM), temperature, pressure, etc.
- (f) Troubleshooting chart including symptoms, probable causes, and remedial action required.
- (g) Adjustment specifications and procedures
- (h) Fits and tolerances (Mechanical wear limits and electrical values at specified test points).
- (i) Diagram(s) (wiring, flow, etc).
- (j) List of special tools and test equipment required to accomplish any of the above troubleshooting, adjustment(s), repair(s), or overhaul procedures.
- (k) List of recommended spare parts and consumable items required to support one year's use of the equipment. The list shall completely identify the item and indicate the source where they may be procured.
- (l) Manufacturer's statement, warranty or guarantee.
- (m) Listing of firmware, location, function, and normal settings. Manufacturer's chapters that describe EEPROM data. The software to perform the following functions uses EEPROM data: calibrate circuits, define system level setup, programmable operating constants, and hardware identification.

3.5.4.8 Electrical Requirements. The Contractor shall design, where required by task/delivery orders, the electrical power distribution system which will have critical power buses, essential power buses and non-essential power buses, as applicable, with their associated power panels and branch circuits. FAA equipment loads will be furnished for each specific site or standard design.

3.5.4.8.1 Electrical Design Parameters. The Contractor shall prepare an electrical design, including all components from the utility demarcation through branch circuit connections to each electrical load (except branch circuit connections to electronic equipment), to reliably accommodate design loads, plus a 25 percent expansion, and coordinate protective devices in accordance with FAA Order 6950.27. The design shall be in accordance with the requirements of this document. The design shall also be in conformance with the best commercial practices and standards of the industry, the National Electrical Code and special requirements of Specifications FAA-C-1217 and FAA-C-1391.

3.5.4.8.2 Lighting. The Contractor shall design the lighting systems for the various power system areas as needed. The design shall be in accordance with the standards prescribed in the Illuminating Engineering Society Handbook and shall complement the aesthetics and atmosphere of the various areas.

3.5.4.8.3 Lightning Protection, Grounding, Bonding & Shielding, and TVSS. Grounding shall be in accordance with FAA-STD-019 and 020, and IEEE STD 142.

3.5.5 Site Preparation and Installation Task. **CDRL: E004 Site Preparation and Installation Documents.**

This task is implementation (construction and installation) of work at selected sites throughout the NAS. This includes but not limited to: facility modifications, equipment installation, equipment start-up, site test, and as-

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built drawings of power systems and associated support equipment specified in the design documents

3.5.5.1 General. Using the design documents (specifications and drawings) the Contractor shall function as a general contractor over seeing the construction, installation, and testing work at each site. These services include but are not limited to: installation of engine generators, E.G. fuel systems, UPS, electrical distribution systems; associated power system support equipment such as, power systems control hardware/software, HVAC, physical facility, and lighting; and demolition and disposal of power system equipment

3.5.5.2 Construction Schedules. As part of the final deliverables, the Contractor shall prepare a complete critical path schedule for construction of each completed design. This schedule will be used by the FAA for evaluation of construction contractor proposals and negotiations prior to and after contract award.

3.5.5.3 Constructability. The Contractor shall recommend a construction period of optimum duration for each assigned project which shall include allowances for adverse weather conditions and in-service modifications, and shall develop a design that assures constructability of facilities with a minimum of operational disruption.

3.5.5.3.1 Responsibility for Revisions. The Contractor shall, upon notification by FAA, be responsible for revising his/her designs to provide a reasonable level of constructability if difficulties are encountered during construction.

3.5.5.4 Testing. Equipment start-up and complete integrated system testing shall be accomplished prior to performing a Contractor Acceptance Inspection (CAI).

3.5.5.5 Contractor Acceptance Inspection (CAI). Before Government acceptance of the facility and equipment a CAI must be completed by the Contractor and the FAA Contracting Officer's Representative together at the site.

3.5.5.6 As-Built Drawings. Following CAI the Contractor shall correct all construction drawings indicate changes from the original design. The drawings shall represent the as-built condition. These drawings are Government property.

3.6 Logistics

3.6.1 Integrated Logistics Support

The contractor shall plan, manage, and execute an Integrated Logistics Support (ILS) program that addresses all elements of integrated logistics identified in Chapter 6 of the Acquisition Management System (AMS) and as identified in this SOW.

The objective of the ILS Program is to execute and integrate support tasks with the production, testing, and installation of the UPS to ensure the system is fully supportable throughout its life cycle. The contractor shall support the FAA ILS Program by performing the tasks included in this section of this SOW.

3.6.1.1 ILS Program Planning **(CDRL: L001 Integrated Support Plan)**

The contractor shall establish and manage an integrated product support program which provides integrated logistics support for the UPS. The contractor shall conduct the Integrated Logistics Support Program in accordance with an FAA approved Integrated Support Plan (ISP). The Contractor may demonstrate compliance with the above requirement by providing the Government with either the applicable portions of their ISO 9000 series certification documentation or internal corporate documentation that support both the scope and intent of the ISP, as described in DI-FAA ISP-001. The Contractor shall update the FAA approved ISP or the FAA approved applicable portions of their ISO 9000 series documentation or internal corporate documentation to reflect approved changes emanating from program changes, reviews, and other actions affecting the integrated logistics aspects of this program and shall deliver the updated ISP/ISO 9000 series documentation or internal corporate documentation to the Government on an as required basis in accordance with the vendor's normal

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update process. The contractor's Logistic Support Program shall be developed to support the following maintenance concept:

1. FAA technicians will perform all of the tasks that the Contractor's Customer service Engineer or Field Service Engineers perform during an assistance visit to a customer site(s). Tasks shall include, but are not limited to, inspection of equipment, troubleshoot/diagnosis to fault, removal of failed parts/LRU(s), replacement of failed parts/LRU(s) and validation and certification (if applicable) that the system is operational and available for operation.
2. The level of documentation and training provided to FAA technicians shall therefore be commensurate to that of the Contractor's Customer Service Engineers or Field Service Engineers.
3. Supply, support, and maintenance/technical services shall be provided via Contractor Logistics Support (CLS), which will be administered by the FAA Logistics Center (FAALC).

3.6.1.2 ILS Management

An Integrated Logistics Support (ILS) Program will enable the Government to support operational UPS systems. In support of the ILS Program, the contractor shall designate an ILS Manager to ensure that integrated logistics considerations and integrated logistics planning are integrated into the UPS equipment engineering. The contractor's ILS Manager shall be at a management hardware and engineering reporting level. The ILS Manager shall be responsible for:

1. Establishing tasks and milestones for planning, developing and validating logistics support.
2. Planning and coordinating the efforts of the following functional logistics elements:
 - a. Maintenance Planning
 - b. Technical Data/Documentation
 - c. Supply Support
 - d. Support and Test Equipment
 - e. Maintenance Support Facilities
 - f. Direct Work Maintenance Staffing
 - g. Training and Training Support
 - h. Software Support
 - i. Packaging, Handling, Storage, & Transportation
3. Coordinating integrated logistics inputs to and outputs from the Government's ILS Manager, Integrated Logistics Support Management Team (ILSMT), subcontractors/vendors and the contractor's internal management, engineering, manufacturing, financial, reliability, maintainability, quality control, field services, and contracts administration organizations.

3.6.1.2.1 ILS Management Team **CDRL: M003 Conference Support Services**

A joint Government/Contractor sponsored ILS Management Team (ILSMT) for UPSs shall be established to serve as the primary management vehicle for coordinating and monitoring the integrated logistics support contract performance ensuring adequacy, timeliness, and compliance with contractual requirements.

The Chairperson for the ILSMT will be the FAA Associate Program Manager for Logistics (APML) or his appointed representative. As requested by the Government, the contractor's representative(s) shall participate as

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a member(s) of the ILSMT. ILSMT conferences will be held every six (6) months, after contract award, but may be called at any time to discuss program anomalies. The first ILSMT conference is in conjunction with initial post award conference and CLSMR conference. These conferences may be held at the contractor's facility, FAA Headquarters, or other facilities as designated by the CO. Whenever possible, these conferences may be held in coordination with other meetings/conferences (i.e. Program Management Reviews). The contractor shall ensure participation of subcontractor(s).

3.6.1.2.2 Logistics Guidance Conference (Post Award Conference) CDRL: M003 Conference Support Services

The contractor shall participate with the Government representatives in a Logistics Guidance Conference (LGC) to be held at the contractor's facility, as ordered by the Government. The Logistics Guidance Conference shall be not later than 30 days after Contract Award in conjunction with post award conference. This conference may be held in conjunction with the first PMR. The contractor shall co-chair the meeting with the FAA APML. The contractor shall present a LGC briefing to detail the contractor's approach to accomplishing integrated logistics tasks in accordance with the ILS elements identified in Chapter 6 of the AMS. The contractor shall support the conference with the required resources (e.g., briefings, view-graphs, manpower) necessary to discuss in detail all support considerations.

3.6.2 Supply Support

3.6.2.1 Recommended Spare Parts List (RSPL) CDRL: L002 Recommended Spare Parts List

The contractor shall provide a recommended site and depot spare parts list for all UPS units ordered under this contract or previously delivered to the FAA, to ensure the UPS provides conditioned and continuous power to critical FAA equipment. This list will be subject to review, modification, and approval by the Government. When ordered, by the Government, the spares shall be packaged separately and accompany the UPS to the ordered site destination.

3.6.2.2 Warranty

The Contractor shall clearly define their warranty (to include both parts and labor) for all UPS units, batteries spare parts, and services ordered by the FAA under this contract. This will enable both the UPS Program Office (AOS-100) and the FAA Logistic Center (FAALC) to correctly process requests for UPS unit, for spare parts and for services and to accomplish their management, tracking, and payment approval tasks. See Section G, Paragraph G.7 (b) for warranty terms.

3.6.3 Contractor Logistics Support (CLS)

(No text)

3.6.3.1 CLS General

This section defines requirements for CLS program management, development and delivery of documentation, and planning effort for the CLS service to support the FAA UPSs ordered under this contract or, if applicable, previously delivered to the Government by the contractor, for the period of this contract.

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CLS is a supply support concept by which:

- 1) Site maintenance is performed by FAA technicians.
- 2) The system contractor performs second level maintenance support and supply support services.
- 3) The FAA Logistics Center provides inventory management and contractor/FAA field interface.

3.6.3.2 CLS Program Management

The Contractor shall manage the CLS Program requirements as described in this SOW. A single Program Manager (PM) shall be assigned the responsibility for control and coordination of all work performed. The PM shall have sufficient experience and authority to ensure efficient and timely program execution. The PM shall be the single focal point within the contractor's organization for all program work. The contractor's PM shall be required to respond to contract status requests within 1 working day following a request from the FAA CO or COTR.

3.6.3.3 CLS Management Review (CLSMR) CDRL: M003 Conference Support Services

The Contractor shall hold one (1) post award CLSMR conference within 30 days after award of contract, this conference shall be held concurrently with the ILSMT Conference, and post award conference, to review/resolve supply support problems, technical assistance problems/concerns, cost and schedule issues, and other CLS issues as requested by the Government. Thereafter, on a quarterly basis the CLSMR shall be held concurrently with the PMR, at the discretion of the Government. Unless otherwise specified by the Government, the contractor shall be responsible for all meeting minutes.

3.6.3.4 CLS Requirements

1. The Contractor shall provide CLS support to the FAA UPSs Systems purchased throughout the contract period, to all existing UPS Systems manufactured or normally supported by the Contractor. This service shall commence with the expiration of warranty of each UPS or as directed, in writing, by the CO. This entails complete supply support which includes issuing expendable hardware LRU's, technical documentation, field service bulletins, software, firmware, and the issue of spare LRU's for UPS systems throughout the contract period. LRU's are categorized as expendable. The Contractor shall adhere to the shipping response times in paragraph 3.6.3.7 (CLS Delivery Requirements) for stocked items purchased throughout the contract period and all existing UPS Systems manufactured or normally supported by the Contractor that are currently installed in the FAA, as of the date the contract is awarded. The Contractor shall also provide piece parts that are sub-LRU level, when ordered by the FAA.
2. The Contractor shall furnish all labor, tools, test equipment, spares, parts, software, and any other technical or administrative support necessary to provide the required CLS.
3. The Contractor shall develop a complete depot level UPS Expendable/Consumable LRU parts list (including GFE spares, if any). The FAA will participate in the list development, and will approve the range and depth of all CLS spares. The Contractor shall update this list, in response to modifications to the Contractor's commercial product, modifications to procedures required to inspect, test, calibrate, service, and repair the UPS at the installation site, or changes made to the contract CLINs that introduce new variations of equipment into the FAA inventory and submit it to the FAA for approval.
4. In the event of failure to renew the contract by either side, or the Contractor goes out of business, the FAA reserves the right to exercise Optional CLIN 0035. All Contractor developed, Contractor funded software, hardware, tools, test equipment, automatic test equipment (ATE), special test equipment (STE), drawings, manuals, etc., developed during the course of this contract, and used in the

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performance CLS, or for developed hardware/software/firmware previously delivered to the FAA, shall be included in CLIN 0035.

5. CLS Warehouse. Contractor furnished warehouse space needs will be based on depot level spare storage requirements for UPS units purchased through the contract plus 400- square feet for rapid deployment temporary UPS, with accessories, equipment storage. The CLS warehouse space shall be a secure area with access door(s) sized to allow free movement of UPS units and UPS accessories through the portal.

3.6.3.5 CLS Definitions

The following definitions are applicable:

1. Line Replaceable Unit (LRU): An essential support item which is removed and replaced at field level to restore the end item to operationally ready condition. An LRU can be either an expendable item or a consumable item.
2. Serviceable Item: The condition of an item in a good state of preservation that can be placed in service in accordance with applicable manufacturer's overhaul limits and instructions and/or pertinent regulations of the FAA without repair.
3. Expendable Item: Any hardware LRU that can be removed and replaced to restore the system. An expendable LRU possesses characteristics, qualities, and low cost that make it uneconomical to restore the defective LRU.
4. Consumable Item: Any item that can be removed and replaced to restore the system. A consumable item is a low cost, non-repairable item such as fuses, light bulbs, knobs, resistors, wire, battery terminal lugs, etc.
5. Test: A test or check of equipment in its operational (or functional) environment, using equipment, procedures, and limits specified in applicable authorized manufacturer publications, manuals, and specifications and technical orders or FAA authorized changes in procedures and limits.

3.6.3.6 Reserved

3.6.3.7 CLS Delivery Requirements

1. The following priorities shall apply for delivery of all items. The designation of priority delivery shall be made by the assigned FAALC Inventory Manager (IM). The Contractor shall ship parts with the FAA priorities system, as defined below.
 - a. Priority 1: This priority is required when an extreme emergency condition exists. It will be used when either the prime or standby equipment is inoperative or when a facility is operating at reduced performance which adversely affects air traffic control operations. Shipment to the designated facility is to be made within twenty-four (24) hours after receipt of notification by the FAALC IM.
 - b. Priority 2: This priority is required when an emergency condition is determined to exist. This condition exists when a facility is operating with substandard equipment or other operating conditions indicate an imminent facility failure or outage. Shipment to the designated facility is to be made within 48 hours after receipt of notification by the FAALC IM.

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- c. Priority 5: This is a routine requirement or stock replenishment. Shipment to the designated facility is to be made within 8 days after receipt of notification by the FAALC IM.

2. Contractor shall provide a 24 hour contact point. Name, phone number, FAX number, and pager number shall be provided as a point of contact. Fax or e-mail a shipping confirmation to AML-4030.

3.6.3.8 CLS Technical and Administrative Supply Support Assistance

The contractor shall provide hardware, software, and firmware technical assistance to the FAA AOS-1040 and AML-4030 organizations as directed by the FAA CO/COTR, for technical documentation, engineering, operational, logistical supply support, and maintenance support of hardware and software/firmware not already included elsewhere in the contract. Such technical assistance shall consist of the following:

a. In-Plant Non-Emergency Technical Assistance

Establishment of a telephone service, which provides technical experts who are fully prepared and equipped to provide guidance to FAA personnel in resolving engineering requests, operational support, logistical supply support, and maintenance support. Once a request is made, the technical experts shall respond to the request within four (4) working hours from the time that the request is received. This assistance will be provided from 8:00 AM to 5:00 PM Eastern Standard/Daylight Time, Monday through Friday (this support is not required on Federal Holidays).

b. In-Plant Emergency Technical Assistance (Restoration)

Establishment of a pager number to request assistance from technical experts who are fully prepared and equipped to provide guidance in the restoration of an FAA facility. Restoration is defined as "all activities required to return a service or facility to operational status following a facility or service interruption". Once a request is made, the technical experts shall contact the requiring facility (using a phone number provided, within two (2) hours from the time the emergency request is received. This assistance will be provided twenty-four (24) hours a day, seven (7) days a week.

c. On-site Technical Assistance

1. Emergency physical on-site support for the restoration of a facility from the nearest qualified source shall be provided by the Contractor within 24 hours from the authorization of the Contracting Officer Technical Representative (COTR)/Contracting Officer (CO).

2. Non-Emergency physical on-site support for engineering requests, operational support, logistical supply support, or maintenance support from the nearest qualified source shall be provided by the Contractor within 5 working days from the authorization of the Contractor Officer Technical Representative/ Contracting Officer.

- d. Telephone request for repair parts resupply and technical assistance from FAA sites to the Contractor shall be conducted by Contractor in accordance with Attachment J.7, of Part III – Section J, (FAA Field Site Requests for UPS Spare Parts Re-supply and/or Technical/Engineering Support, SOP)

3.6.3.9 CLS Shipment of Expendable Items

(No Text)

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3.6.3.9.1 From Contractor to Government Facility

Upon request by the Government, the Contractor shall ship a serviceable expendable item to the designated Government field facility. Shipping instructions for those items shall be furnished by the assigned FAALC IM. The FAALC IM shall contact the Contractor's facility and provide a returned material authorization (RMA) number, assigned by the FAALC IM, for transportation charges as a separate item on all invoices. If the items' shipping charges for any one destination exceed \$100, the waybill shall be marked "THESE TRANSPORTATION CHARGES ARE TO BE PAID AS A SEPARATE AND DIRECT ITEM BY THE U. S. GOVERNMENT; THEREFORE, ANY SPECIAL US GOVERNMENT TRANSPORTATION RATES MUST BE APPLIED". Method of shipment shall be commensurate with the designated priority of the requirements and may be specifically designated by the assigned FAALC IM. Contractor shall use a traceable means of shipment.

3.6.2.9.2 Reserved

3.6.3.10 CLS Packaging, Handling, Storage and Transportation (PHS&T)

The contractor shall provide all PHS&T requirements in accordance with the applicable documents.

3.6.3.10.1 Preservation, Packaging, and Packing

1. All expendable components and equipment shall be preserved, packaged, and packed IAW ASTM-D-3951.
2. Electrostatic Discharge Sensitive items shall be packaged IAW best commercial practices.

3.6.3.11 CLS Marking

1. All components, equipment and spares with a consignee other than the FAALC shall be marked IAW the marking requirements of ASTM-D-3951. In addition each unit, intermediate, and exterior-shipping container, shall be marked with the following information:
 - a. Serial Number
 - b. Part Number
 - c. Warranty Expiration Date
 - d. Contract Number
 - e. Contract Line Item Number
 - f. Manufacturer

3.6.3.12 CLS Storage and Transportation

1. STORAGE--Contractor shall package end items for storage in accordance with "best commercial practices and standards", and shall maintain Government owned parts/equipment in a bonded area within the Contractor's facility.
2. TRANSPORTATION--Components, equipment, and spares shall be transported by the most economical means, considering dependability, safety, and urgency of need. This shall include counter-to-counter shipment. All shipments must be shipped FOB destination and by traceable means. The Contractor shall be responsible for tracking the above items ordered by ship-to destination and item part number/noun nomenclature.

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3.6.3.13 CLS Maintenance and Contract Cost Reports CDRL: L003 CLS Supply Support, Technical Assistance, and CLS Cost Reporting.

The supply support, technical assistance, and contract cost reports shall contain information on technical assistance; items and components issued during the reporting period together with the cumulative information indicated for each Fiscal Year; and will include all CLS contract costs.

3.6.4 Support Equipment Candidate List (SECL) CDRL: L004 Support Equipment Candidate List

The Contractor shall develop a SECL package that includes all support equipment/test equipment both common and special, required to inspect, test, calibrate, service, and repair the Uninterruptible Power Systems (UPS) at the installation site. This list will be subject to review, modification, and approval by the Government. The Contractor shall provide the Government updates, as appropriate.

3.6.5 Documentation

3.6.5.1 Commercial & Technical Documentation CDRL: L005 Commercial Support Documentation

1. The contractor shall provide, with each UPS System ordered, one copy of the applicable Installation and Operations manual(s) and other such applicable hardware, software and firmware documentation. The Government shall have full and complete rights to all system software, system hardware, system firmware and all supporting documentation. The contractor shall furnish to the government any hardware, software or firmware necessary to alter or modify the "application" software. The "executable" source code shall be furnished. The executable code shall be properly annotated and commented. The Government shall have the right to reproduce, copy, alter, use, modify, all data, documentation, software, hardware and firmware. The Government agrees to maintain this data in a reasonable secure manner and agrees not to divulge the data to any competitors. The manufacturer shall be required to license the Government to use all applicable software.
2. Within 30 days after contract award, the Contractor shall provide the Government copies of all documentation (current version as of the delivery date and as defined in paragraph 10.2 of DI-FAA CSD-001) for the vender's Product as listed in Schedule B of this contract. This delivery shall constitute the Documentation Baseline for the vender Product Line. After delivery of the above baseline set, the Contractor shall deliver updates in accordance with the Contractor's normal update process and schedule.
3. If applicable, the contractor shall provide copies of all documentation applicable to legacy systems, equipment and software/firmware, manufactured by the Contractor and previously delivered to the FAA. This delivery shall constitute the Documentation Baseline for the Contractor's Legacy UPS Systems. After delivery of the above baseline set, the Contractor shall deliver updates in accordance with the Contractor's normal update process and schedule.
4. The Contractor shall provide commercial technical instruction books to support system trouble-shooting and site maintenance in order to maintain the UPS equipment. The UPS instruction books shall include a level of detail on the equipment and their interaction to provide a thorough understanding of all UPS functions. The level of detail shall enable the technician to identify the failure as an equipment failure and will enable the technician to isolate the failure to the lowest replaceable unit (LRU). The documentation shall consist of , as a minimum, the documentation listed below:
 - a) Operator manuals
 - b) Special support equipment documentation
 - c) Maintenance manuals
 - d) Technical Instruction Books

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- e) Supplemental Technical data sheets
- f) Repair Parts Supply Documentation
- g) Field Service Bulletins

NOTE: Training documentation requirements are addressed in paragraph 3.7.3.

All materials provided to the Government shall be free of all encumbrances, to include any prohibition on reproduction or use by the FAA for official Government purposes.

3.7 Training and Training Support

3.7.1 Introduction

This section documents the Federal Aviation Administration's (FAA) requirements for UPS Training.

3.7.2 Course Requirements

The contractor shall provide and conduct Commercial-Off-The-Shelf (COTS) UPS training as ordered under this contract. If COTS training is unavailable or unacceptable to the Government, the contractor shall adhere to the requirements of FAA-STD-028C Contract Training Programs and the Airway Facilities Standards and Guidelines for Course Development. FAA STD-028C located at this web site: www.faa.gov/ahr/policy/hrpm/hroi/ld/028c.cfm.

3.7.3 General Training Information

C.3.7.3.1 Environmental Occupational Safety and Health(EOSH)

All COTS training material developed, revised, or used by the contractor shall meet or exceed the appropriate Occupational Safety and Health Administration (OSHA) regulations (see OSHA 29CFR1910.178(g), OSHA 29 CFR 1910.305(l)(7), and OSHA 29 CFR 1926.403(A). FAA Order 3900.19B OSHA Safety Regulations shall also be integrated into course content, as appropriate. All instruction shall emphasize each person's accident prevention responsibilities, both as an individual and as a representative of the FAA.

3.7.3.2 Copyrighted Material

All COTS training material shall be free from all encumbrances which prohibit or limit their reproduction or use by the Government for training purposes. These encumbrances shall include, but not be limited to, copyrighted materials, registered documentation, and software. At final delivery, the contractor shall provide written verification that the above requirements have been met. All material developed for the FAA shall be the sole property of the FAA and shall not be used by the contractor for any purpose other than as stated in the contract.

3.7.3.3 Course Schedule

For classroom delivery, FAA training shall be scheduled for 8 hours per day for five workdays per week, unless otherwise specified. Federal holidays shall not be class days and shall not be absorbed in the overall course length. The FAA will establish class start and stop times and class days. Class instruction periods for lecture shall normally be 50 minutes duration with a 10-minute break between periods of instruction. Length of practical application (laboratory exercises) may vary as necessary. Course instruction, testing, and any required remediation shall be included in this time frame.

To meet urgent installation and/or fielding requirements, the FAA may direct the contractor to conduct a second shift or an accelerated training schedule. If so directed, the contractor shall conduct training to accomplish all instructional activities while maximizing use of the system.

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The Contracting Officer (CO) will advise the contractor of the requirement for a course at least 60 days prior to the required date after coordination with the Training Division, AFZ-100.

3.7.3.4 Contractor-Furnished Training Site(s) and Facilities

Any training sites and/or facilities furnished by the contractor are subject to inspection and approval by the FAA CO, or designee, during the contract period. The initial inspection will be conducted during the Post-Award Training Conference. The following site/facility conditions will be appraised: space, lighting, noise, heating and cooling, safety of environment, furniture, cleanliness and sanitation.

Training aids such as chalkboards, overhead projectors, viewgraphs, etc., as identified in training documentation, shall be provided by the contractor.

The contractor shall correct any known deficiencies identified before the start of training. If training is already in progress, the deficiencies shall be corrected within 10 days, or within the time period specified by the FAA CO.

3.7.3.5 Student-To-Instructor Ratio

The student-to-instructor ratio shall be no greater than 12 to 1 for the classroom training and no greater than 4 to 1 for the lab portion. The contractor shall conduct a minimum of 10 classes with additional classes purchased as required.

3.7.4 Training Deliverables

3.7.4.1 Required Training Deliverables

**3.7.4.1.1 CDRL T001 Post-Award Training Conference
CDRL M003 Conference Support Services**

The contractor shall host, at their facility, a Post-Award Training Conference 30 days after contract award. The purpose of the conference shall be to provide details on and clarification to the requirements set forth herein.

The conference shall be convened by the FAA CO, or one designated by the CO, who shall serve as chairperson.

The conference shall establish a liaison between the contractor, FAA Contracting Officer, FAA Technical Officer, FAA Technical Training Adviser, and other FAA personnel specified in the contract and charged with the responsibility for contract administration.

The conference shall permit inspection of the contractor's facility and establish a working relationship with contractor personnel.

The conference shall discuss the proposed course development methods and the requirements associated with each deliverable required from the contractor.

The conference shall discuss the contractor's plan for accomplishing the training.

The conference shall discuss the contractor's Personnel Qualification Report.

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The contractor is responsible for preparing an agenda for the conference and preparing conference minutes including any action items.

3.7.4.1.2 CDRL T003 Personnel Qualifications Report

At the Post-Award Training Conference, the contractor shall submit, for Government review and acceptance, a resume of training experience for each person assigned to develop courseware and/or conduct classes under this contract. Each resume must include the names of organization where the person developed and/or conducted training, points of contact including telephone numbers, training dates, and the number of persons in each class.

3.7.4.1.3 CDRL T004 Task And Skills Analysis Report

Following contract award, the contractor shall have 90 days to submit a Task and Skills Analysis (TASA) Report. Specific requirements for the reports are listed in FAA Standard 028C. A TASA Report shall be prepared for the Maintenance Technician Training Course.

3.7.4.1.4 CDRL T005 COTS Training Material Report

Following contract award, the contractor shall have 90 days to submit a Commercial-Off-the-Shelf (COTS) Training Materials Report. The COTS Report shall include an assessment of the suitability of the proposed COTS materials against the course requirements listed in this SOW and against the TASA. Specific requirements for the reports are listed in FAA Standard 028C. The proposed COTS training materials shall be submitted along with the reports. A COTS Training Material Report shall be prepared for the Maintenance Technician Training Course.

3.7.4.1.5 CDRL T006 Contractor's Presentation

During the Contractor's Presentation, the contractor presents a shortened version of each fully developed lesson. The lesson is given in enough detail and depth so that the FAA can assess the effectiveness of the instructional materials, learning sequence, performance exercises, etc. A Contractor's Presentation shall be conducted for the Maintenance Technician Training Course.

Course Evaluations are required upon completion of the Contractor's Presentation. The FAA will provide course critique forms to the contractor for distribution to the students. These forms will include, but not be limited to, student lesson critiques, time logs, errata sheets, end-of-course critiques, etc. The students will be provided an opportunity to complete the forms during the conduct of training.

During the validation phase (Operational Tryout and First Course Conduct), the FAA will review the forms and identify necessary changes to training curriculum, schedule and/or materials. The contractor will incorporate the changes. At subsequent course conducts by the contractor, the contractor administers the assessment forms and forwards all evaluations to the FAA designated office.

3.7.4.2 Optional Training Deliverables

If COTS training material is unavailable or unacceptable the contractor shall prepare and submit the deliverables listed below to complete course development. The specific requirements for each deliverable are listed in FAA STD-028C. The Government shall designate which deliverables will be required and when they will be delivered. Data Item Deliverables (DIDs) are located at this web site: www.faa.gov/ahr/policy/hrpm/hroi/ld/028c.cfm

3.7.4.2.1 CDRL T007 Training Development Plan

A Training Development Plan shall be prepared for the Maintenance Technician Training Course.

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3.7.4.2.2 CDRL T008 Course Design Guide

A Course Design Guide shall be prepared for the Maintenance Technician Training Course.

3.7.4.2.3 CDRL T009 Tests

Tests shall be prepared for the Maintenance Technician Training Course.

3.7.4.2.4 CDRL T010 Classroom Training Materials

Classroom Training Materials shall be prepared for the Maintenance Technician Training Course.

3.7.4.2.5 CDRL T011 Operational Tryout

An Operational Tryout shall be conducted for the Maintenance Technician Training Course.

3.7.4.2.6 CDRL T012 First Course Conduct Materials

First Course Conduct Materials shall be prepared for the Maintenance Technician Training.

3.7.4.2.7 CDRL T013 Delivery of End Of Course Evaluation

An End of Course Evaluation is mandatory no later than five days after conducting the Contractor's Presentations CLIN 0031D, CDRL T006 / DID-14.

An End of Course Evaluation is mandatory no later than five days after conducting the Operational Tryouts CLIN 0031I, CDRL T011/ DID-15.

An End of Course Evaluation is mandatory no later than five days after conducting the First Course Conducts CLIN 0031J, CDRL T012/ DID-16.

An End of Course Evaluation is mandatory no later than five days after conducting each Maintenance Technician Training Course.

3.7.4.2.8 CDRL T014 Theory of Operation Examination

3.7.4.2.9 CDRL T015 Performance Examinations

3.7.5 Classroom

The contractor shall furnish and maintain all reference, instruction, and student materials for each class. The contractor shall provide each student with a complete set of student materials (student manual, lab manual, etc.). The course shall make maximum use of all materials distributed. The use of the manuals should encompass a "how to" approach and work in concert with the instructor's lesson plans. One complete set of technical instruction manuals per student shall be made available as reference material and retained in the classroom. At the conclusion of each class the students shall retain all student course materials issued to them.

3.7.6 General Training Requirements

The contractor shall:

1. Maintain all course materials, curriculum materials, and courseware until all contractor conducted training has been completed.
2. Ensure that each training course includes a measurement of student learning through written and/or performance type exams.
3. Ensure that any deficiencies or discrepancies encountered during operational tryout and first course conduct are corrected within 30 days after receipt of FAA comments.
4. Submit formats for training materials for Government approval prior to use.
5. Ensure that training materials are complete at least 30 days prior to start of first class.
6. Correct any errors, omissions, and deficiencies in the course materials which were discovered while conducting the training.

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7. Submit final delivery of all training documents and materials in hard copy and on electronic media files in Microsoft Office 2000 or later format.

3.7.7 Quarterly contract Reviews

The contractor shall participate in quarterly Program Reviews to review the contract status in terms of Performance, Schedule, and Cost. However, program reviews may be called at any time to discuss contract anomalies. The list of items to review may include, but not limited to, the following:

1. Contract implementation;
2. Accomplishments and shortfalls of performance during the reporting period;
3. Planned activities for the next reporting period;
4. Cost of training to date;
5. Problems and issues;
6. Outstanding action items;

Quarterly reviews shall be conducted the first month of the quarter at the contractor's facility or via teleconferences. The first review shall commence no later than 60 days after the Post-Award Training Conference. All review dates will be designated by the FAA CO or the CO's designated representative. The contractor shall be responsible for the preparation of all handouts. The review shall serve as the medium for the contractor to provide insight into the contractor's program planning and current progress for the FAA Program Office.

PART III – SECTION J
ATTACHMENT J.2

Static Uninterruptible Power Supply
Equipment Specification (UEP)

Version 5.1

2/9/03

PART III SECTION J ATTACHMENT J.2

Part 1 General

1.0 UPS Definition:

The system shall continuously supply regulated AC power to loads and shall be capable of providing power during loss or interruption of input AC by using energy stored in a battery bank, which is to be included as a component of the UPS. The UPS shall be capable of suppressing transient voltage conditions. Input power will be AC power supplied from either the electric utility or an engine generator. The UPS, as specified by contract, shall consist of a single non-redundant modules, single phase and three phase power configuration. Three-phase power input and three-phase output: sized from 10kVA to 500kVA. Single- phase power and single phase output: 0.6 KVA through 10 KVA. The UPS module shall include internal automatic transfer capability along with maintenance bypass capability and control circuitry.

1.1 Major Component List:

Each UPS system furnished by the Contractor shall include:

- a. Static UPS Module
- b. Battery unit. Including disconnects and overload protection inter-cell connectors, battery rack(s), and battery monitor.
- c. Manual maintenance bypass isolation equipment necessary to completely isolate the system.

1.2 Environmental requirements:

1.2.1 Storage ambient temperature: -20C to 55C

1.2.2 Operating ambient temperature UPS unit: 0C to 40C

1.2.3 Operating ambient temperature batteries: 15C to 25C

1.2.4 Relative humidity: 5 to 95%, non-condensing.

1.2.5 Altitude: The UPS shall operate at all altitudes between 0 and 3,300 feet without de-rating performance. The contractor shall provide de-rating data for operation between 3,300 and 11,000 feet in 1000-foot increments.

Part 2 Equipment Characteristics and Performance

2.0 General: UPS shall be a single module of on-line technology that meets the stated performance requirements. . The UPS system control shall provide synchronization control circuits, connection control circuits, disconnection control circuits, system instrumentation, system status indicators, system alarms and system diagnostic for Remote Maintenance Monitoring and battery monitoring.

2.1 UPS Performance Ratings: The UPS shall be capable of providing continuous rated power during loss or interruption of input AC power by using DC power stored in the battery bank. Under specified conditions, the UPS shall automatically, without

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interruption, transfer the load by use of the static transfer switch to the bypass feeder. The UPS shall automatically reverse transfer from utility bypass operation to UPS operation without output voltage interruption when load conditions are within the system rating.

2.2 UPS continuous output capacity rating: The Three-phase UPS kVA rating output sizes shall have one model in these range groupings. For 208/208 volt they are: 10-19 kVA, 20-29 kVA, 30-39 kVA, 40-49 kVA, 50-65 kVA, 66-80 kVA, 81-100 kVA, 101-150 kVA. For 480/480 or 480/208 they are: 10-19 kVA, 20-29 kVA, 30-39 kVA, 40-49 kVA, 50-65 kVA, 66-80 kVA, 81-100 kVA, 101-150 kVA, 151-250 kVA, 251-300 kVA, 301-400, and 500 kVA. . The single-phase UPS unit output sizes for this contract are: 0.6 KVA through , 10, KVA.

2.3 UPS Battery Storage Capacity: The battery unit must provide 15 minutes of 100% rated load back-up time for each UPSs rated up to 300 kVA and 10-minutes for UPSs rated from 301 to 500 kVA.

2.4 Electrical Input Requirements.

2.4.1 Input voltage: Three-phase: 120/208 and 277/480 volt, .
Single-phase: 120/208 and 120/240 volt.

2.4.2 Input voltage range: +10%, -15%.

2.4.3 Input frequency: 60 hz +/- 5% With other levels programmable.

2.4.4 RMS Inrush current: Vendor shall provide inrush current values at these specific times: during start-up, 0.01 sec., 0.1 sec., and at 1 second.

2.4.5 Power walk-in: 0 to 100% over a 10-second period, other times programmable.

2.4.6 Input Power factor (PF): (ratio of kW to kVA) (Power Factor values between 100% load and 25% load shall not be less than 0.94 lagging) (At no time during the UPS operation shall the PF become leading) (Load is full rated capacity of the UPS.)

2.4.7 Input Current distortion: THD values between 100% and 25% load shall not exceed 5%. (Load is full rated capacity of the UPS.)

2.4.8 Dual Input Feed: The UPS shall have separate power input feeds for the AC/DC converter and internal static bypass switch.

2.5 Electrical output Requirements.

2.5.1 Output voltage: Three-phase: 208/120 four-wire plus equipment ground and 480/277 volt, three-wire plus equipment ground.
Single-phase: 208/120 and 240/120 volt.

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2.5.2 Output voltage regulation:

- a. +/- 1% steady state for a static 100% balance load.
- b. +/- 3% steady state for a static 100% unbalance load.
- c. +/- 5% during 100% step load.

2.5.3 Output Frequency: 60hz +/- 0.1 Hz.

- Frequency "free run" +/- .01 Hz
- Frequency "Sync range" +/- .5 Hz,
- Frequency maximum slew rate 1hz/second.

2.5.4 Output Voltage Harmonic Distortion: The UPS shall continuously function, without capacity de-rating, when supplying a 100% distorted load (2.5.4.b) with phase displacement no greater than paragraph 2.8.c.

- a. 3% THD maximum and 1% any single harmonic for 100% linear load.
- b. 5% THD maximum for a 100% nonlinear load, crest factor 3:1.

2.6 Voltage Transient Response:

- a. +/- 3% for a 50% load step.
- b. +/- 5% for a 100% load step.

2.7 Voltage Transient Response Time: Voltage shall fully recover to within nominal voltage regulation limits within 25 milliseconds.

2.8 Phase displacement:

- a. 120 degrees +/- 1 degree for balanced load.
- b. 120 degrees +/- 1 degree for 50% unbalanced load.
- c. 120 degrees +/- 3 degrees for 100% unbalanced load.

2.9 Overload capability:

- a. 125% for 10 minutes in normal operation.
- b. 150% for 10 seconds in battery operation.
- c. 115% continuously in bypass operation.
- d. 1000% for 16 milliseconds in bypass operation.

2.10 The DC bus rms ripple voltage shall be less than 2% of the UPS' nominal DC voltage level with batteries disconnected, and 0.5% with the batteries connected on float charge.

2.11 Low battery voltage protection: To prevent total discharge of the battery, the UPS shall transfer to standby operation when the battery voltage reaches a programmable minimum voltage level.

2.12 Normal System Operation: The energy storage unit or battery unit shall not be required to assume any portion of a critical load increase from between 0% and 100% UPS load rating in normal operation. The UPS shall continue to function in the normal mode of operation with or without battery or energy storage device connected.

2.13 Short Circuit Withstand: The UPS must meet the parameters of UL Standard 1778.

PART III SECTION J ATTACHMENT J.2

2.14 System AC to AC Efficiency: The UPS AC to AC minimum efficiency at rated input and output voltage is 89%, at 100% linear load, nominal input voltage, with batteries fully charged.

2.15 Acoustical noise: Maximum 70 dBA of noise, measured at 1 meter from the operator surface.

2.16 UPS Design

2.16.1 Reliability. Mean time between failures (MTBF), with bypass, for a single module is defined as the average time between failures that require corrective action. Each UPS unit's MTBF shall not be less than 120,000 hours without bypass.

2.16.2 Maintainability: Modular sub-assemblies: for ease of maintenance and service, the UPS must have field replaceable modular sub-assemblies serviceable from the cabinet front panel. The UPS system shall not require periodic maintenance or inspections more than twice each year. No visit for routine or periodic maintenance shall require more than 4 man-hours for the semi-annual visit.

2.16.2.1 Malfunction diagnosis

a. The UPS shall have self-diagnostic capabilities to determine malfunctions and failures to the line replaceable unit (LRU) level, including batteries, that would ultimately result in the operation of a protective device.

b. Malfunctioning LRUs shall be correctly identified 90% of all cases.

c. The remaining 10% of malfunctioning LRUs shall be isolated to not more than three possible LRUs.

d. Local alarms shall be supplied to provide maintenance personnel with information regarding the reason for the shutdown or incipient failure.

e. This same information shall be transmitted to an interface with remote capabilities.

f. Visual and audible indicators shall annunciate the malfunction of a protective device or circuit.

g. The indicators and manufacturer's instruction manuals shall be sufficient to enable FAA personnel to verify the existence and location of the fault or malfunction and determine the steps necessary to restore the UPS system to service.

2.16.2.2 Mean Time To Repair (MTTR):

The UPS shall be configured so that system restoration, following a failure, can be accomplished by the replacement of a LRU(s). Mean time to repair the UPS, following a failure, shall not exceed 30 minutes, assuming spare components and subassemblies are available on site. MTTR is the mean time to repair all of the removable items in a system for corrective maintenance. MTTR is defined as beginning when the technician arrives at the UPS. It includes the total time required to isolate and replace the defective LRU and return the UPS to normal operation.

2.16.3 UPS:

a. Temperature protection: The DC to AC output converter shall be temperature protected. In case of converter over temperature, the unit shall activate an alarm and automatically transfer to static bypass operation.

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b. Charging Battery Units: The charging operations shall match the requirements of the type energy storage unit utilized.

c. Battery Units: For battery charge temperature compensation the UPS shall monitor battery temperatures and change the charge current to compensate for changes in the battery temperature. Charging current must be limited to 10% of nominal DC discharge current, that is programmable to lower levels.

2.16.4 Internal Static Bypass Switch:

a. The static switch shall be solid state, rated for continuous duty and be capable of operation even if UPS battery unit fails or is disconnected.

b. The static bypass switch shall sense and automatically transfer the critical load, without interruption, in ¼ cycle, after one of the following conditions:

- 1) DC to AC converter overload beyond rating.
- 2) Energy storage unit Battery runtime expired and bypass available.
- 3) DC to AC converter failure.
- 4) Energy storage unit circuit breaker open.
- 5) Fatal error in control system.

c. The static bypass switch shall automatically retransfer from bypass to the DC to AC converter, when one of the following conditions occurs:

- 1) After an instantaneous overload induced transfer has occurred and the load current has returned to less than 100% of the system rating.
- 2) The UPS DC to AC converter is operational and on.

2.16.5 Manual Maintenance Bypass (MBP) Switch (reference Attachments J.2a and J.2b). This switch shall be external to the UPS either housed in a floor mount cabinet or wall mount enclosure. The switch, as diagramed in attachment 1, shall be a make-before-break operation without disrupting the output to the critical load. The switch shall:

- a. Three switch MBP.
- b. Molded case switches, AIC rating 65,000
- c. Provide Kirk keys with key solenoid interlock with UPS.
- b. MBP wired as shown in attachment 1 to this document.

2.16.6 Battery Rack. Components are batteries, battery rack enclosure, DC Disconnect and battery monitor.

a. Battery Design Lifetime: 20 years.

b. Reserve Time: Sized to support the fully rated load of the UPS for a minimum of 10 minutes at full rated load of the UPS.

c. Provide a positive means of isolating the battery unit from the UPS power system. DC disconnect switch mounted in battery rack or on the wall.

3) Battery Monitor: A battery monitor function shall be capable of monitoring and providing the following parameters. The monitor output shall be fully integrated into the UPS monitor and control software. .

- a) Individual battery or cell charger.
- b) Individual battery or cell equalization, 1% of average.
- c) Measure individual battery or cell voltages, 0-16 volts DC.
- d) Measured individual current charging, +/- 1 millamp.
- e) Measures string voltage, 0-600 volts.
- f) Measured string charge and discharge current.

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- g) Measured Temperature points, up to 6 digital sensors in battery rack.
- h) Derived battery or cell resistance.
- i) Derived discharge time remaining.
- j) Derived Amp-hours removed.
- k) Individual alarm history.
- l) Communications protocols on RS232
- m) Software: HyperTerminal, Windows.

5) Battery Rack enclosure assembly: Free-standing open frame that allows ease of maintenance without down time during battery maintenance, and free circulation of air by convection. Designed for easy and safe access to the battery terminals. Rack may have roll out drawers, using roller bearings, with drawer stops, to access battery terminals. Or, use battery racks with batteries with front mount terminals facilitating battery maintenance. If the battery rack is a drawer design the drawers shall incorporate a cable management system for power cables and battery monitor cables; and allow full and clear access to all battery terminals when the drawer is extended. Both type racks must have the option of being installed with backside against a wall.

2.16.7 Remote Monitor Alarm Panel

2.16.7.1 Remote annunciation panel installed within 500-feet of the UPS and hardwired to the UPS. These are dry contact points. This is console or wall mount panel indicating basic UPS functions. Terminology for the five status lights will vary from vender to vender regardless of the labeling they should represent the terminology listed below.

- a. UPS on/Load on Inverter/Normal Operation/System Normal.
- b. Load on Bypass/Static bypass Operation.
- c. UPS on Battery Operation
- d. Battery Low/Battery low voltage
- c. UPS Failure/UPS off

2.16.8 Grounding and Surge Protection.

2.16.8.1 Input Surge Protection: UPS systems shall meet IEEE 587, (ANSI Standard C62.41), Categories A & B (6kV).

2.16.8.2 EMI Suppression: UPS systems shall meet FCC Class A, Subpart J of Part 15.

2.16.8.3 Electrostatic Discharge: UPS systems shall withstand 25 kV electrostatic discharge without damage or disturbance to the load.

2.17 UPS Front Panel Display and Controls

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2.17.1 Display unit: A microprocessor controlled display unit shall be located at the front of the UPS cabinet. The display unit shall consist of an alphanumeric display with backlight, an alarm LED, and a touch keypad.

2.17.2 UPS status messages: The display unit shall display the following UPS status messages:

- a. Normal operation: load power xxx%.
- b. Energy storage operation: time xxx minutes.
- c. Bypass operation.
- d. Standby.
- e. System off.

2.17.3 Metered parameters: The display unit shall allow the user to display the following metered parameters:

- a. Year, Month, Day, Hour, Minute, Second.
- b. Input AC voltage (line-to-line, three phase simultaneous).
- c. Input AC current (line-to-neutral, three phase simultaneous).
- d. Output frequency.
- e. Energy storage unit or Battery voltage.
- f. Energy storage unit or Battery current (charge/discharge).
- g. Battery temperature.
- h. Input frequency
- i. Output voltage (all phases)
- j. Output current (all phases)
- k. Output frequency
- l. kVARs
- m. Power kW
- n. Load power factor]

2.17.4 Alarms: The display unit shall allow the user to display a log of all active alarms. **(vendor provide number and type of alarms)**

2.17.5 Events log: The display unit shall allow the user to display a time and date stamped log of the 100 most recent UPS status and alarm events and to download information onto soft media.

2.17.6 Controls: The following control or programming functions shall be accomplished with the display unit:

- a. Silence an audible alarm.
- b. Set the alphanumeric display language to English.
- c. Display or program the time and date.
- d. Enable or disable the automatic restart feature.
- e. Transfer to or from static bypass operation.
- f. Program the energy storage unit or battery charger.
- g. Calculate energy storage unit back-up time.
- h. Test energy storage condition on demand.
- i. Program voltage and frequency windows.
- j. Calibrate metered parameters.
- k. Enable or disable adaptive slew rate. Set maximum slew rate.
- l. Adjust set points for different alarms.

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- m. Program the unit for soft start for use with a generator.
- n. Program the unit to periodically test energy storage unit condition.

2.17.8 Communication interface: A communication interface shall provide the following communication ports.

- a. RS232 serial port For use with vendors PC based software.
- b. RS232 serial port for interfacing with FAA Remote Maintenance Monitoring equipment. See CDRL E001.
- c. Interface with engine generator.
- d. Interface connection to Maintanece bypass Kirk key solenoid.
- e. UPS remote shut-down.
- . connection for the Remote Monitor Alarm Panel listed in Paragraph 2.14.7 above.

2.17.9 Remote UPS monitoring: Remote UPS monitoring shall be possible via either the RS232 or contact closure. The UPS shall have available interfaces to support remote monitoring for the following systems:

- a. Microsoft Windows XP, is preferred interface.
- b. Microsoft Windows 98
- c. Microsoft Windows NT
- d. Interface control document as specified in CDRL E001.

2.17.10 SNMP adapter: The Ethernet/token Ring SNMP adapter shall allow one or more network management systems to monitor and manage the UPS in TCP/IP network environments. The Management Information Base (MIB) shall be provided in DOS, UNIX and Windows 95 formats. The SNMP interface adapter shall be connected to the UPS via the RS232 port.

2.18 Mechanical Enclosure Design

2.18.1 Three-Phase Enclosures: The UPS shall be housed in a freestanding enclosure. The enclosure shall be designed for fork truck lifting. All service access and field wiring terminations shall be from the front or side.

2.18.1.1 UPS module dimensions, for all input and output voltages:

- a. Height: Maximum 84".
- b. Width:
 - 10-19 KVA Maximum 56"
 - 20 - 29KVA Maximum 56"
 - 30 - 39 KVA Maximum 60"
 - 40 – 49 KVA Maximum 68"
 - 50 – 65 KVA Maximum 68"
 - 66 – 80 KVA Maximum 68"
 - 80 - 100 KVA Maximum 73"
 - 101 - 150 KVA Maximum 81"

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- 151 – 250 KVA Maximum 83"
- 251 - 300 KVA Maximum 83"
- 301 – 400 KVA Maximum 83"
- 500 KVA Maximum 115"

c. Depth: Maximum 30" for all KVA ranges.

2.18.1.2 UPS Battery rack dimensions:

a. Height: Maximum 79" for fixed frame racks off all KVA ranges.

b. Width:

- 10 – 19 KVA Maximum 24"
- 20 – 29 KVA Maximum 24"
- 30 -39 KVA Maximum 36"
- 40 – 49 KVA Maximum 36"
- 50 – 65 KVA Maximum 60"
- 66 – 80 KVA Maximum 60"
- 81 - 100 KVA Maximum 120"
- 101 - 150 KVA Maximum 120"
- 151 – 250 225 KVA Maximum 120"
- 251 - 300 KVA Maximum 250"
- 301 – 400 KVA Maximum 250"
- 500 KVA Maximum 250"

c. Depth: Maximum 30" for all KVA ranges.

2.18.1.3 Manual Maintenance Bypass cabinet (floor mount).

a. Height: Maximum 84".

b. Width:

- 10 – 19 KVA Maximum 17"
- 20 - 29 KVA Maximum 17"
- 30 – 39 KVA Maximum 34"
- 40 – 49 KVA Maximum 34"
- 50 – 65 KVA Maximum 34"
- 66 – 80 KVA Maximum 34"
- 81 - 100 KVA Maximum 34"
- 101 - 150 KVA Maximum 34"
- 151 – 250 KVA Maximum 49"
- 151 - 300 KVA Maximum 49"
- 301 – 400 KVA MAXIMUM 49"
- 500 KVA Maximum 49"

c. Depth: Maximum 30" for all KVA ranges

2.18.2 Single-Phase Enclosures: Tower, rack mounted 17", and cabinet type enclosures.

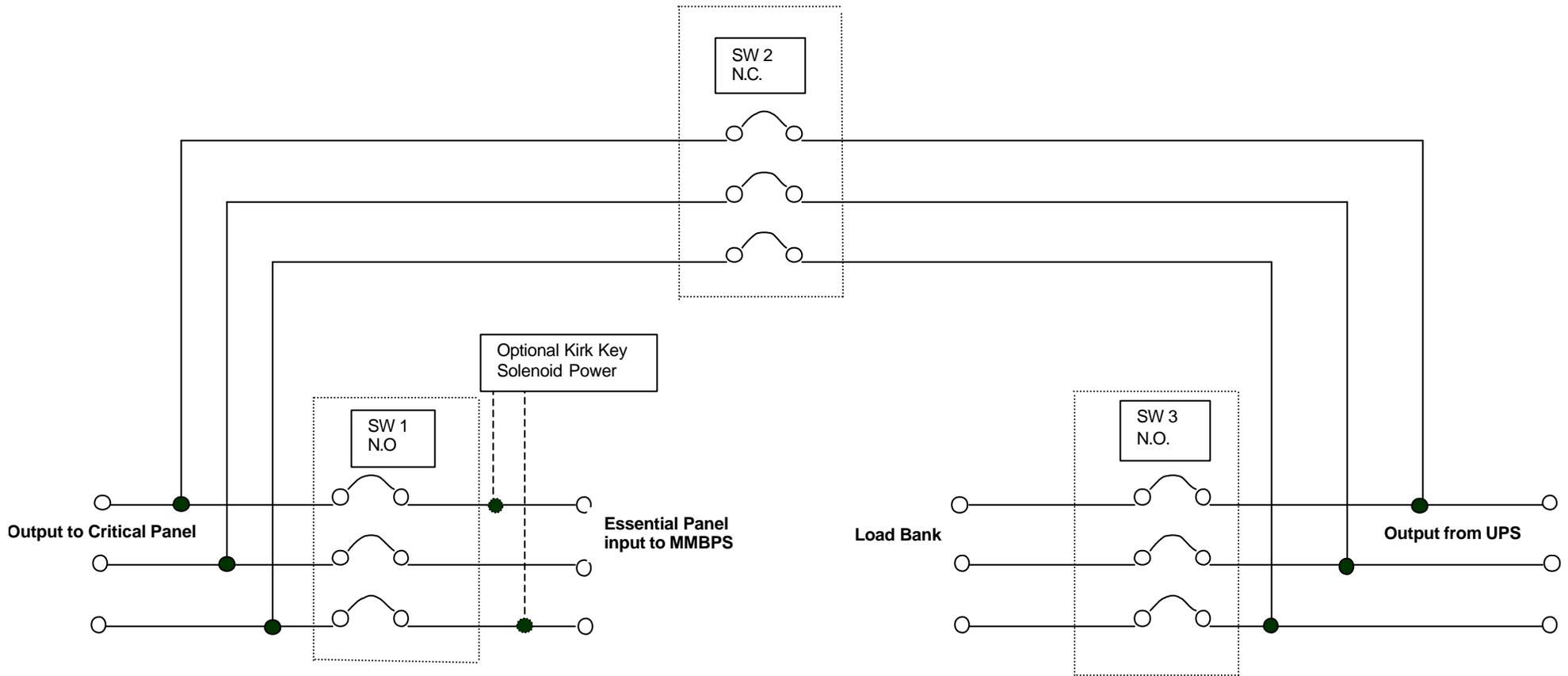
2.18.3 Ventilation: The UPS shall be cooled by free air ventilation or by forced air ventilation. If forced air is used then fan-monitoring circuitry shall be utilized. External battery systems shall be cooled by free-air ventilation and convection.

PART III SECTION J ATTACHMENT J.2

2.18.4 Seismic Mounting: All cabinets and racks shall provide International Building Code 2000 (IBC 2000) Zone 4 seismic mounting features. All items internal to the cabinet and rack shall also be provide with mounts to match all the appropriate IBC Zone seismic restraint requirements.

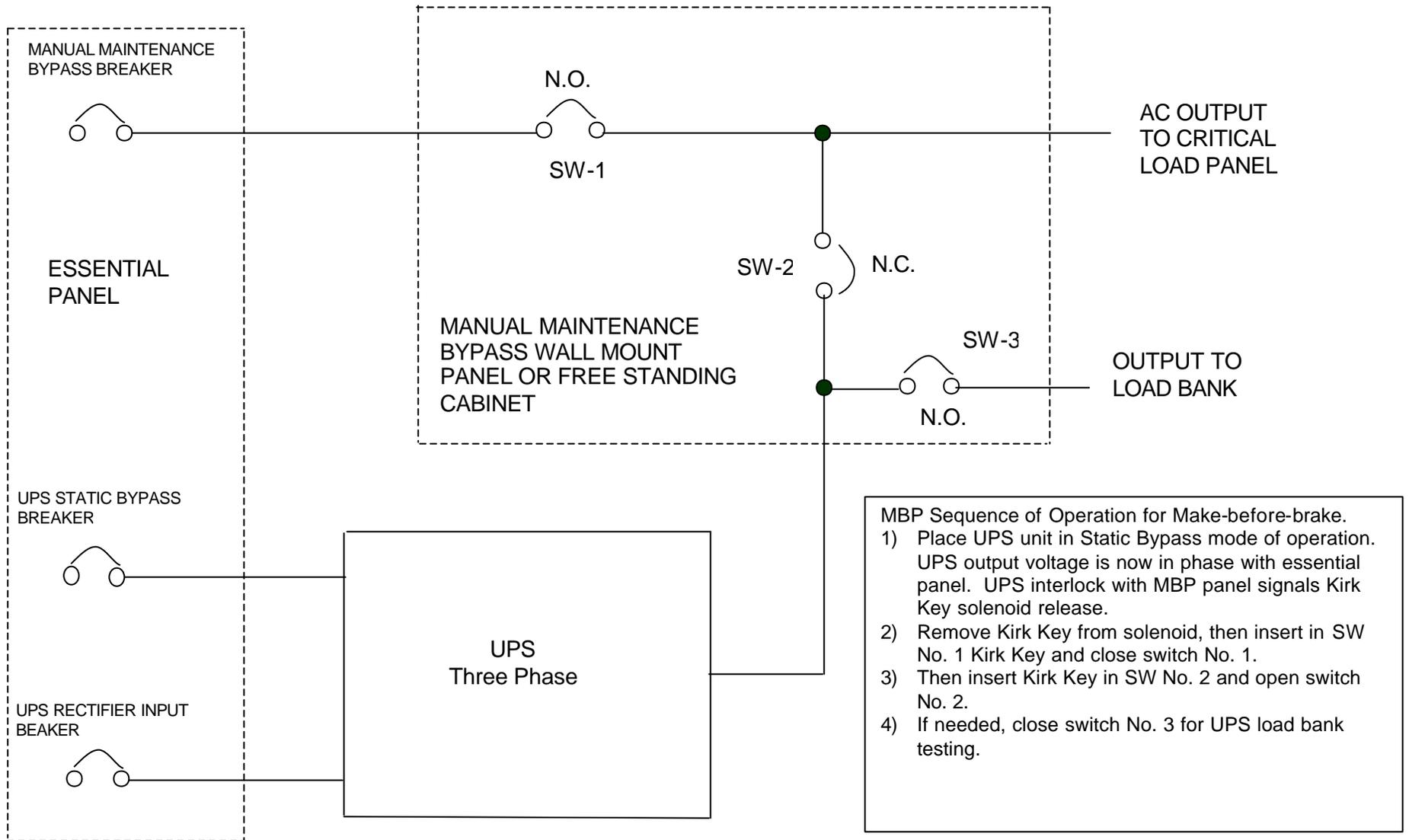
PART III – SECTION J ATTACHMENT J.2a EQUIPMENT SPECIFICATION ATTACHMENT 1

MANUAL MAINTENANCE BYPASS (MMBPS) SWITCH
WIRING DIAGRAM FOR WALL MOUNT OR FREE STANDING CABINET



1) Optional Kirk Keys on Switches SW-1, 2 and 3. Interconnection between UPS and Interlock solenoid for Kirk Key.
N.O = Normally Open
N.C.= Normally Closed

PART III – SECTION J ATTACHMENT J.2a EQUIPMENT SPECIFICATION ATTACHMENT 1
 MANUAL MAINTENANCE BYPASS CONFIGURATION



**PART III SECTION J
ATTACHMENT J.3**

Contract Data Requirement Line Item (CDRL) Cover sheet

<u>NUMBER</u>	<u>TITLE</u>
M001	Program Management Plan
M002	Program Management Report
M003	Conference Support Services
Q001	Quality Assurance Plan
Q002	Equipment Quality Control Test Report
Q003	Contractor's Configuration Management Plan
E001	Software Interface Document
E002	Site Survey Report
E003	Engineering Design Documents
E004	Site Preparation and Installation Documents
L001	Integrated Support Plan (ISP)
L002	Recommended Spare Parts List (RSPL)
L003	CLS Supply Support, Technical Assistance, and CLS Cost Reporting
L004	Support Equipment Candidate List (SECL)
L005	Commercial Support Documentation (CSD)
T001	Post-Award Training Conference
T002	Reserved
T003	Personnel Qualifications Report
T004	Task and Skills Analysis Report
T005	COTS Training Material Report
T006	Contractor's Presentation
T007	Training Development Plan
T008	Course Design Guide
T009	Tests
T010	Classroom Training Materials
T011	Operational Tryout
T012	First Course Conduct Materials
T013	Delivery of End-of-Course Evaluation
T014	Theory of Operation Examination
T015	Performance Examinations

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0029A		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. E001	2. TITLE OF DATA ITEM SOFTWARE INTERFACE DOCUMENT		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.4.1		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY ONE TIME
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

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AOS -1000			1				
AMQ - 240			1				
(A) TOTAL →	0	0	2	(B) TOTAL →			
15. TOTAL OF A & B →				2			

16. REMARKS:

BLOCK 10 - ONE SUBMISSION UNLESS UPS UNIT OR BATTERY MONITOR SOFTWARE IS CHANGED.

BLOCK 12 - THE CONTRACTOR SHALL PROVIDE SOFTWARE INTERFACE DOCUMENTS WITHIN 30 DAYS OF CONTRACT AWARD.

BLOCK 13 - IF UPS UNIT OR BATTERY MONITOR SOFTWARE IS CHANGED OR RECONFIGURED THE CONTRACTOR SHALL UPDATE AND SUBMIT THE REVISED SOFTWARE INTERFACE DOCUMENT.

BLOCK 14B - REPO MEANS SOFT COPY.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS - 1030	J. DATE 2/9/03

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A. CONTRACT LINE ITEM No. 0029B		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. E002	2. TITLE OF DATA ITEM SITE SURVEY REPORT		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.5.3		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY SEE BLOCK 16
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AMQ - 240			1				
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15. TOTAL OF A & B →				3			

16. REMARKS:

BLOCK 10, 12, 13 - THE CONTRACTOR SHALL PROVIDE SITE SURVEY REPORTS FOR EACH SITE AS DIRECTED IN THE DELIVERY ORDERS.

BLOCK 14B - REPO MEANS SOFT COPY "ELECTRONIC MEDIA" SENT BY EMAIL.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS - 1030	J. DATE 2/9/03

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D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. E003	2. TITLE OF DATA ITEM ENGINEERING DESIGN DOCUMENTS		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.5.4		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY SEE BLOCK 16
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

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AMQ - 240			1				
ANI-30		1	1				
(A) TOTAL →	0	2	3	(B) TOTAL →			
15. TOTAL OF A & B →				5			

16. REMARKS:

BLOCK 10, 11, 12, 13 - ENGINEERING DESIGN DOCUMENTS ARE SUBMITTED IN ACCORDANCE WITH SCHEDULE SPECIFIED IN EACH DELIVERY ORDER.

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G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS - 1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

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No. 0704-0188

A. CONTRACT LINE ITEM No. 0029D		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. E004	2. TITLE OF DATA ITEM SITE PREPARATION AND INSTALLATION DOCUMENTS		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.5.5		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY SEE BLOCK 16
11. AS OF DATE SEE BLOCK 16		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

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AMQ - 240			1				
ANI-30		1	1				
(A) TOTAL →	0	2	3	(B) TOTAL →			
15. TOTAL OF A & B →				5			

16. REMARKS:

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BLOCK 14B - REPO THIS BLOCK WILL BE USED TO DESIGNATE THE NUMBER OF COPIES IN "ELECTRONIC MEDIA" TO BE DELIVERED TO THE GOVERNMENT. FURTHER REQUIREMENTS ARE CONTAINED IN THE DATA ITEM DESCRIPTION (DID).

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G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS - 1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

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No. 0704-0188

A. CONTRACT LINE ITEM NO. 0030A		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. L001	2. TITLE OF DATA ITEM INTEGRATED SUPPORT PLAN (ISP)		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SOW PARA. 3.6.1.1		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED No	8. APP CODE A		9. DIST STATEMENT REQUIRED No	10. FREQUENCY ONE/REVISIONS	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS-1000		1	1*				
AMQ - 240 *LTO		1	1*				
AML-4030		1	1*				
(A) TOTAL →	0	3	3	(B) TOTAL →			
15. TOTAL OF A & B →				7			

16. REMARKS:

BLOCK 12: THE CONTRACTOR SHALL SUBMIT THE ISP OR THE APPLICABLE PORTIONS OF THEIR ISO 9000 SERIES DOCUMENTATION OR A COPY OF INTERNAL DOCUMENTATION THAT SUPPORT BOTH THE SCOPE AND INTENT OF THE ISP, NOT LATER THAN 30 DAYS AFTER AWARD OF CONTRACT.

THE GOVERNMENT WILL REVIEW AND COMMENT OR APPROVE THE ISP, ISO 9000 SERIES DOCUMENTATION, OR INTERNAL CORPORATE DOCUMENTATION WITHIN 30 DAYS AFTER RECEIPT FROM CONTRACTOR..

BLOCK 13: THE CONTRACTOR SHALL UPDATE AND RESUBMIT THE ISP OR SUBSTITUTED CORPORATE DOCUMENTATION, AS REVISIONS OCCUR.

BLOCK 14 (B) FINAL COPIES: CONTRACTOR IS REQUESTED/MAY PROVIDE THE GOVERNMENT WITH AN ELECTRONIC COPY, IF AVAILABLE.

* LTO = "LETTER OF TRANSMITTAL ONLY"

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS -1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0030B		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. L002	2. TITLE OF DATA ITEM RECOMMENDED SPARE PARTS LIST (RSPL)		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SOW PARA. 3.6.2.1		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED NO	8. APP CODE A		9. DIST STATEMENT REQUIRED NO	10. FREQUENCY ONE/REVISIONS	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS-1000	1	1	1				
AMQ - 240 *LTO	0	1*	1*				
AML-4030	1	1	1				
AMA-430	0	0	1				
(A) TOTAL →	2	3	4	(B) TOTAL →			
15. TOTAL OF A & B →				11			

16. REMARKS:

BLOCK 12: THE CONTRACTOR SHALL DELIVER THE RECOMMENDED SPARE PARTS LIST(S) FOR EACH MODEL OF UPS THAT THE GOVERNMENT MAY PURCHASE OR HAS PREVIOUSLY PURCHASED NOT LATER THAN 60 DAYS AFTER CONTRACT AWARD.

THE GOVERNMENT WILL REVIEW, COMMENT, APPROVE/DISAPPROVE THE RECOMMENDED SPARE PARTS LIST(S) 30 WORKING DAYS AFTER RECEIPT FROM THE CONTRACTOR.

BLOCK 13: THE CONTRACTOR SHALL UPDATE AND RESUBMIT THE RECOMMENDED SPARE PARTS LISTS, AS REVISIONS OCCUR.

BLOCK 14 (B) FINAL COPIES: CONTRACTOR SHALL PROVIDE THE GOVERNMENT WITH AN ELECTRONIC COPY.

* LTO = "LETTER OF TRANSMITTAL ONLY"

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS -1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0030C		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. L003	2. TITLE OF DATA ITEM CLS SUPPLY SUPPORT, TECHNICAL ASSISTANCE, AND CLS COST REPORT		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SOW PARA. 3.6.3.13		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED NO	8. APP CODE A		9. DIST STATEMENT REQUIRED NO	10. FREQUENCY SEE BLOCK 16	
11. AS OF DATE SEE BLOCK 16		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION AS REQUIRED	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS-1000	0	1	1				
AMQ - 240 *LTO	0	1*	1*				
AML-4030	0	1	1				
	0	0	0				
(A) TOTAL →	0	3	3	(B) TOTAL →			
15. TOTAL OF A & B →				8			

16. REMARKS:
BLOCK 10: QUARTERLY AND ANNUALLY.

BLOCK 11: END OF QUARTER/ANNUAL YEAR

BLOCK 12: QUARTERLY – 10 WORKING DAYS AFTER THE QUARTER THE DATA WAS COLLECTED.
CUMULATIVE: SUBMITTED WITH QUARTERLY SUBMISSION
ANNUALLY – 20 WORKING DAYS AFTER THE END OF FISCAL/CONTRACT YEAR .

BLOCK 14 (B) FINAL COPIES: CONTRACTOR SHALL PROVIDE THE GOVERNMENT WITH AN ELECTRONIC COPY AND A SOFT COPY.

*** LTO = "LETTER OF TRANSMITTAL ONLY"**

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS -1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0030D		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. L004	2. TITLE OF DATA ITEM SUPPORT EQUIPMENT CANDIDATE LIST (SECL)		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SOW PARA. 3.6.4		6. REQUIRING OFFICE AOS-1000	
7. DD 250 REQUIRED No	8. APP CODE A		9. DIST STATEMENT REQUIRED No	10. FREQUENCY ONE/REVISIONS	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION 60 DACA		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS-1000	0	1	1				
AMQ - 240 *LTO	0	1*	1*				
AML-4030	0	1	1				
(A) TOTAL →	0	3	3	(B) TOTAL →			
15. TOTAL OF A & B →				9			

16. REMARKS:

BLOCK 12: THE CONTRACTOR SHALL DELIVER THE SUPPORT EQUIPMENT CANDIDATE LIST FOR EACH MODEL OF UPS, EITHER PREVIOUSLY PURCHASED OR WHICH MAY BE PURCHASED, NOT LATER THAN 60 DAYS AFTER CONTRACT AWARD. THE GOVERNMENT WILL REVIEW, COMMENT, APPROVE/DISAPPROVE THE SUPPORT EQUIPMENT CANDIDATE LIST 30 WORKING DAYS AFTER RECEIPT FROM THE CONTRACTOR.

BLOCK 13: THE CONTRACTOR SHALL UPDATE AND RESUBMIT THE SUPPORT EQUIPMENT CANDIDATE LIST, AS REVISIONS OCCUR.

BLOCK 14 (B) FINAL COPIES: CONTRACTOR SHALL PROVIDE THE GOVERNMENT WITH ELECTRONIC COPIES, IF AVAILABLE.

* LTO = "LETTER OF TRANSMITTAL ONLY"

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS -1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0030E		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)	
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR
1. DATA ITEM NO. L005	2. TITLE OF DATA ITEM COMMERCIAL SUPPORT DOCUMENTATION (CSD)		3. SUBTITLE OF DATA ITEM N/A	
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE SOW PARA. 3.6.5.1		6. REQUIRING OFFICE AOS-1000
7. DD 250 REQUIRED No	8. APP CODE A		9. DIST STATEMENT REQUIRED No	10. FREQUENCY SEE BLOCK 16
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS-1000	0	1	1				
AMQ - 240 *LTO	0	1*	1*				
AML-4030	0	1	1				
(A) TOTAL →	0	3	3	(B) TOTAL →			
15. TOTAL OF A & B →				9			

16. REMARKS:

BLOCK 10: THE CONTRACTOR SHALL DELIVER WITH EACH UPS SYSTEM ORDERED, TWO (2) COMPLETE SETS OF APPLICABLE DOCUMENTATION, TO INCLUDE INSTALLATION AND OPERATIONS MANUALS.

BLOCK 12: THE CONTRACTOR SHALL SUBMIT THE COMMERCIAL DRAWINGS AND ASSOCIATED LISTS 30 DAYS AFTER CONTRACT AWARD. THE GOVERNMENT WILL REVIEW, COMMENT, AND APPROVE/DISAPPROVE THE COMMERCIAL DRAWINGS AND ASSOCIATED LISTS 30 WORKING DAYS AFTER RECEIPT FROM THE CONTRACTOR.

THE CONTRACTOR SHALL DELIVER WITHIN 30 DAYS AFTER CONTRACT AWARD ONE (1) SET OF BASELINE DOCUMENTATION (CURRENT VERSION AS OF THE DELIVER DATE) FOR ALL UPS MODELS, THAT THE GOVERNMENT MAY PURCHASE OR HAS PREVIOUSLY PURCHASED, TO EACH OF THE FOLLOWING FAA OFFICES: AOS-220, ARN-300, AND AOS-100. SHIPPING ADDRESSES FOR AOS-220, ARN-300, AND AOS-100 WILL BE PROVIDED TO THE CONTRACTOR AT A LATER DATE. THIS DELIVERY SHALL CONSTITUTE THE DOCUMENTATION BASELINE FOR THE CONTRACTOR'S PRODUCT LINE, AS OF THAT DATE. PRIORITY OF SHIPMENT SHALL BE TO AOS-220, ARN-300, AND AOS-100, IN THAT ORDER.

BLOCK 13: THE CONTRACTOR SHALL UPDATE AND RESUBMIT ALL DOCUMENTATION PREVIOUSLY SUBMITTED AS REVISIONS OCCUR.

BLOCK 14 (B) FINAL COPIES: CONTRACTOR SHALL PROVIDE THE GOVERNMENT WITH ELECTRONIC COPIES, IF AVAILABLE.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -1030	H. DATE 2/9/03	I. APPROVED BY RALPH LUND, AOS -1030	J. DATE 2/9/03

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0027A		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM UPS PROGRAM MANAGEMENT		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. M001	2. TITLE OF DATA ITEM PROGRAM PLAN		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.1.1		6. REQUIRING OFFICE AOS-100	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY ONE TIME
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS -100			1				
AMQ - 240			1				
ARN - 300			1				
(A) TOTAL →	0	0	3	(B) TOTAL →			
15. TOTAL OF A & B →				3			

16. REMARKS:

BLOCK 12 - THE CONTRACTOR SHALL SUBMIT THE PROGRAM PLAN NOT LATER THAN 30 DAYS FOLOWING DELIVERY ORDER. THE GOVERNMENT WILL REVIEW THE PROGRAM PLAN 15 WORKING DAYS AFTER RECEIPT FROM CONTRACTOR.

BLOCK 13 - THE CONTRACTOR SHALL UPDATE AND SUBMIT THE PROGRAM PLAN AS REVISIONS TO THE PROGRAM MANAGEMENT STRUCTURE OCCUR.

BLOCK 14B – REPO MEANS SOFT COPY.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -100	H. DATE 8/8/02	I. APPROVED BY RALPH LUND, AOS - 100	J. DATE 8/8/02

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0027B		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM UPS PROGRAM MANAGEMENT REPORT		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. M002	2. TITLE OF DATA ITEM PROGRAM MANAGEMENT REPORT		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.1.2		6. REQUIRING OFFICE AOS-100	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY AS REQUIRED
11. AS OF DATE SEE BLOCK 16		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS -100			1				
AMQ - 240			1				
ARN-300			1				
(A) TOTAL →	0	0	3	(B) TOTAL →			
15. TOTAL OF A & B →				3			

16. REMARKS:

BLOCK 12 - THE CONTRACTOR SHALL SUBMIT THE PROGRAM MANAGEMENT REPORT NOT LATER THAN 30 DAYS FOLLOWING DELIVERY ORDER.**BLOCK 13 - THE CONTRACTOR SHALL UPDATE AND SUBMIT THE PROGRAM MANAGEMENT REPORT AT LEAST ONCE PER MONTH.****BLOCK 14B - REPO MEANS SOFT COPY.**

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -100	H. DATE 8/8/02	I. APPROVED BY RALPH LUND, AOS - 100	J. DATE 8/8/02

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0025		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM POWER SYSTEMS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. M003	2. TITLE OF DATA ITEM CONFERENCE SUPPORT SERVICES		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.1.4; 3.1.5, 3.6.1.2.1; 3.6.1.2.2; 3.6.3.3; & 3.7.1		6. REQUIRING OFFICE AOS-100	
7. DD 250 REQUIRED LTO	8. APP CODE 1		9. DIST STATEMENT REQUIRED NO	10. FREQUENCY SEE BLOCK 16	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS-100		1	1				
AMQ - 240 *LTO		1*	1*				
ARN-300		1	1				
(A) TOTAL →	0	3	3	(B) TOTAL →			
15. TOTAL OF A & B →				6			

16. REMARKS:

BLOCK 10: SUBMITTED AT THE BEGINNING OF EACH SCHEDULED/UNSCHEDULED PMR, ILS MANAGEMENT TEAM MEETING, LOGISTICS GUIDANCE CONFERENCE, CLS MANAGEMENT REVIEW, AND TRAINING GUIDANCE CONFERENCE.

BLOCK 12: SUBMITTED AT THE BEGINNING OF EACH SCHEDULED/UNSCHEDULED PMR, ILS MANAGEMENT TEAM MEETING, LOGISTICS GUIDANCE CONFERENCE, CLS MANAGEMENT REVIEW, AND TRAINING GUIDANCE CONFERENCE.

BLOCK 13: SUBMITTAL AT EACH SUBSEQUENT SCHEDULED/UNSCHEDULED PMR, ILS MANAGEMENT TEAM MEETING, AND CLS MANAGEMENT REVIEW.

BLOCK 14: DISTRIBUTION SHALL INCLUDE TEN HARDCOPIES TO GOVERNMENT ATTENDEES AT EACH SPECIFIC MEETING/CONFERENCE IN ADDITION TO COPIES NOTED IN 14 A/B.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS-100	H. DATE 8/8/02	I. APPROVED BY RALPH LUND, AOS-100	J. DATE 8/8/02

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0028A		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM UPS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. Q001	2. TITLE OF DATA ITEM QUALITY ASSURANCE PLAN		3. SUBTITLE OF DATA ITEM QA PLAN		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.2		6. REQUIRING OFFICE AOS-100	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY ONE TIME
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS -100			1				
AMQ - 240			1				
ARN - 300			1				
(A) TOTAL →	0	0	3	(B) TOTAL →			
15. TOTAL OF A & B →				3			

16. REMARKS:

BLOCK 12 - THE CONTRACTOR SHALL SUBMIT TO THE GOVERNMENT THE CONTRACTOR'S QA PLAN NOT LATER THAN 30 DAYS AFTER CONTRACT AWARD. IF THE CONTRACTOR IS ISO 9000 CERTIFIED, THE CONTRACTOR WILL BE REQUIRED TO SUBMIT HIS/HER CURRENT ISO CERTIFICATION, TO THE GOVERNMENT.

BLOCK 13 - THE CONTRACTOR SHALL UPDATE AND SUBMIT THE QA PLAN AS REVISIONS TO THE QA PLAN OCCUR.

BLOCK 14B - REPO WILL DESIGNATE ELECTRONIC COPIES.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -100	H. DATE 8/8/02	I. APPROVED BY RALPH LUND, AOS - 100	J. DATE 8/8/02

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0028B		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM UPS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. Q002	2. TITLE OF DATA ITEM EQUIPMENT TEST REPORT		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.2.1		6. REQUIRING OFFICE AOS-100	
7. DD 250 REQUIRED	8. APP CODE 1		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY SEE BLOCK 16
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION FIRST SYSTEM DELIVERED SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION EACH SUBSEQUENT SYSTEM DELIVERY SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS -100		1					
AMQ - 240		1					
(A) TOTAL →	0	2	0	(B) TOTAL →			
15. TOTAL OF A & B →				2			

16. REMARKS:

BLOCK 10 - THE CONTRACTOR SHALL PROVIDE A REPORT OF THE FACTORY TESTING, ACCOMPLISHED IN-HOUSE , ON EACH UPS UNIT. THE CONTRACTOR SHALL PROVIDE THIS REPORT CONCURRENT WITH EACH UPS EQUIPMENT DELIVERY TO THE GOVERNMENT. THIS REPORT SHALL DEFINE TEST PARAMETERS AND TEST RESULTS.

BLOCK 12 – TEST REPORT SHALL BE FORWARDED CONCURRENTLY WITH UPS UNIT SHIPMENT.

BLOCK 13 - TEST REPORT SHALL BE FORWARDED CONCURRENTLY WITH UPS UNIT SHIPMENT.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -100	H. DATE 8/8/02	I. APPROVED BY RALPH LUND, AOS - 100	J. DATE 8/8/02

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0028C		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (CONTRACT BASE AWARD)		
D. SYSTEM/ ITEM UPS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. Q003	2. TITLE OF DATA ITEM CONTRACTOR'S CONFIGURATION MANAGEMENT PLAN		3. SUBTITLE OF DATA ITEM N/A		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.)		5. CONTRACT REFERENCE C 3.3		6. REQUIRING OFFICE AOS-100	
7. DD 250 REQUIRED	8. APP CODE		9. DIST STATEMENT REQUIRED NONE		10. FREQUENCY ONE TIME
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AOS -100			1				
AMQ - 240			1				
ARN - 300			1				
(A) TOTAL →	0	0	3	(B) TOTAL →			
15. TOTAL OF A & B →				3			

16. REMARKS:

BLOCK 12 - THE CONTRACTOR SHALL DELIVER THE CONTRACTORS CONFIGURATION MANAGEMENT PLAN NOT LATER THAN 30 DAYS AFTER CONTRACT AWARD. IF THE CONTRACTOR IS ISO 9000 CERTIFIED, THE CONTRACTOR WILL BE REQUIRED TO PROVIDE HIS/HER LATEST CERTIFICATION TO THE GOVERNMENT. THE GOVERNMENT WILL REVIEW, COMMENT, APPROVE/DISAPPROVE THE CONTRACTOR'S CONFIGURATION MANAGEMENT PLAN DOCUMENT 30 WORKING DAYS AFTER RECEIPT FROM THE CONTRACTOR.

BLOCK 13 - THE CONTRACTOR SHALL UPDATE AND SUBMIT THE CONTRACTOR'S CONFIGURATION MANAGEMENT PLAN AS REVISIONS OCCUR.

BLOCK 14B - REPO WILL DESIGNATE ELECTRONIC COPIES.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY RALPH LUND, AOS -100	H. DATE 8/8/02	I. APPROVED BY RALPH LUND, AOS - 100	J. DATE 8/8/02

CONTRACT DATA REQUIREMENTS LIST*(1 DATA ITEM)*FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0025		B. EXHIBIT	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T001	2. TITLE OF DATA ITEM POST-AWARD TRAINING CONFERENCE		3. SUBTITLE OF DATA ITEM		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/PARA 3.6.A		5. CONTRACT REFERENCE SOW 3.7.4.1.1		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE N/A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY 1 TIME	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION 30 DAC		13. DATE OF SUBSEQUENT SUBMISSION N/A	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

A. EXACT CONFERENCE DAYS WILL BE ESTABLISHED BY MUTUAL AGREEMENT BETWEEN THE GOVERNMENT AND THE CONTRACTOR.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST
(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0031A		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)	
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR
1. DATA ITEM NO. T003	2. TITLE OF DATA ITEM PERSONNEL QUALIFICATIONS REPORT		3. SUBTITLE OF DATA ITEM	
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-1		5. CONTRACT REFERENCE SOW C.3.7.4.1.2		6. REQUIRING OFFICE AFZ-100
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:
 BLOCK 12. DELIVER AT POST-AWARD TRAINING CONFERENCE.
 BLOCK 13. REVISIONS WILL BE SUBMITTED 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.
 BLOCK 14. DELIVER TO EACH ADDRESSEE 1 HARDCOPY AND 1 SOFTCOPY OF THE PQR

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0031B		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T004	2. TITLE OF DATA ITEM TASK AND SKILLS ANALYSIS REPORT		3. SUBTITLE OF DATA ITEM TASA FOR MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-2		5. CONTRACT REFERENCE SOW C.3.7.4.1.3		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION 90 DAC		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 13. 15 DAYS AFTER RECEIPT RECEIPT OF GOVERNMENT COMMENTS..

30 DAYS PRIOR TO CONDUCTING THE FIRST CLASS, THE CONTRACTOR WILL PRODUCE A REVISED TASA THAT ACCURATELY REFLECTS THE CHANGES THAT HAVE OCCURRED SINCE APPROVAL OF THE DRAFT.

DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE TASA.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0031C		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T005	2. TITLE OF DATA ITEM COTS TRAINING MATERIALS REPORT		3. SUBTITLE OF DATA ITEM COTS TRAINING MATERIALS REPORT FOR MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-4		5. CONTRACT REFERENCE SOW C.3.7.4.1.3		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION 90 DAC		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 13. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.

BLOCK 14. DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0031D		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. T006	2. TITLE OF DATA ITEM CONTRACTOR'S PRESENTATION		3. SUBTITLE OF DATA ITEM CP FOR MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-14		5. CONTRACT REFERENCE SOW C.3.7.4.1.4		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION 180 DAC		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 13. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.
BLOCK 14 DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0031E		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)	
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR No.		F. CONTRACTOR
1. DATA ITEM No. T007	2. TITLE OF DATA ITEM TRAINING DEVELOPMENT PLAN		3. SUBTITLE OF DATA ITEM TDP FOR MAINTENANCE TECHNICIAN TRAINING COURSE	
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-5		5. CONTRACT REFERENCE SOW C.3.7.4.1.6		6. REQUIRING OFFICE AFZ-100
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:
 BLOCK 12. 30 DAYS AFTER GOVERNMENT APPROVAL OF TASA (T004) ANC COTS TRAINING MATERIALS REPORT (T005).
 BLOCK 12. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.
 BLOCK 14. DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE TRAINING DEVELOPMENT PLAN.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0031F		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T008	2. TITLE OF DATA ITEM COURSE DESIGN GUIDE		3. SUBTITLE OF DATA ITEM MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-6		5. CONTRACT REFERENCE SOW C.3.7.4.1.7		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:
 BLOCK 12. 30 DAYS AFTER GOVERNMENT APPROVAL OF TRAINING DEVELOPMENT PLAN (T007).
 BLOCK 13. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.
 BLOCK 14 - DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE COURSE DESIGN GUIDE.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0031G		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. T009	2. TITLE OF DATA ITEM TESTS		3. SUBTITLE OF DATA ITEM MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-7		5. CONTRACT REFERENCE SOW C.3.7.4.2		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 12 - NLT 150 CALENDAR DAYS AFTER CONTRACT AWARD IF OPTION EXERCISED BY GOVERNMENT.

BLOCK 13 - 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.

BLOCK 14 - DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE TESTS.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0031H		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T010	2. TITLE OF DATA ITEM CLASSROOM TRAINING		3. SUBTITLE OF DATA ITEM FOR MAINTENANCE TECHNICIANS		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-8		5. CONTRACT REFERENCE SOW C.3.7.4..2		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 12. NLT 150 CALENDAR DAYS AFTER CONTRACT AWARD IF OPTION EXERCISED BY GOVERNMENT.
 BLOCK 13. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.
 BLOCK 14. DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE TRAINING MATERIALS.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 00311		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T011	2. TITLE OF DATA ITEM OPERATIONAL TRYOUT		3. SUBTITLE OF DATA ITEM MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-15		5. CONTRACT REFERENCE SOW C.3.7.4.2		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMA-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 12. CONDUCT SYSTEM OVERVIEW COURSE 210 CALENDAR DAYS AFTER CONTRACT AWARD IF OPTION EXERCISED BY GOVERNMENT..

BLOCK 13. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.

BLOCK 14. DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE COURSE MATERIALS.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO. 0031J		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS SYSTEM		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T012	2. TITLE OF DATA ITEM FIRST COURSE CONDUCT		3. SUBTITLE OF DATA ITEM MAINTENANCE TECHNICIAN TRAINING COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-16		5. CONTRACT REFERENCE SOW C.3.7.4..2		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 12. CONDUCT MAINTENANCE TECHNICIAN TRAINING COURSE 240 CALENDAR DAYS AFTER CONTRACT AWARD IF OPTION EXERCISED BY GOVERNMENT.

BLOCK 13. 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.

BLOCK 14. DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFTCOPY OF THE COURSE MATERIALS

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM No. 0031K		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR No.		F. CONTRACTOR	
1. DATA ITEM No. T013	2. TITLE OF DATA ITEM DELIVERY OF END OF COURSE EVALUATIONS		3. SUBTITLE OF DATA ITEM CONTRACTOR MAINTENANCE COURSE		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C		5. CONTRACT REFERENCE SOW C.3.7.4.1.5		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE N/A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY SEE BLOCK 16	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100		1					
AMQ-240		LT ONLY					
(A) TOTAL →		1/1		(B) TOTAL →			
15. TOTAL OF A & B →				1			

16. REMARKS:

BLOCKS 10, 12 & 13. 5 DAYS AFTER COMPLETION OF CONTRACTOR TRAINING COURSE

NOTE: BLANK FORMS WILL BE FURNISHED BY THE GOVERNMENT. FORMS TO BE HANDED OUT AT THE BEGINNING OF TRAINING.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO.		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T014	2. TITLE OF DATA ITEM THEORY-OF-OPERATION EXAMINATION		3. SUBTITLE OF DATA ITEM AF MAINTENANCE TECHNICIAN		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-17		5. CONTRACT REFERENCE SOW 3.7.4.1.8		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			
15. TOTAL OF A & B →				4/4			

16. REMARKS:

BLOCK 12 30 DAYS PRIOR TO JAI OF FIRST UPS DELIVERED UNDER THIS CONTRACT.

BLOCK 13 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.

BLOCK 14 DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFT COPY.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

CONTRACT DATA REQUIREMENTS LIST

(1 DATA ITEM)

FORM APPROVED OMB
No. 0704-0188

A. CONTRACT LINE ITEM NO.		B. EXHIBIT A	C. CATEGORY <input type="checkbox"/> TDP <input type="checkbox"/> TM <input checked="" type="checkbox"/> OTHER (TRAINING)		
D. SYSTEM/ ITEM UPS TRAINING		E. CONTRACT / PR NO.		F. CONTRACTOR	
1. DATA ITEM NO. T015	2. TITLE OF DATA ITEM PERFORMANCE EXAMINATIONS		3. SUBTITLE OF DATA ITEM AF MAINTENANCE TECHNICIAN		
4. AUTHORITY (DATA ACQUISITION DOCUMENT No.) FAA-STD-028C/DID-17		5. CONTRACT REFERENCE SOW 3.7.4.1.9		6. REQUIRING OFFICE AFZ-100	
7. DD 250 REQUIRED LT	8. APP CODE A		9. DIST STATEMENT REQUIRED C	10. FREQUENCY ONE/R	
11. AS OF DATE N/A		12. DATE OF FIRST SUBMISSION SEE BLOCK 16		13. DATE OF SUBSEQUENT SUBMISSION SEE BLOCK 16	

DISTRIBUTION

A. ADDRESSEE	B. COPIES			A. ADDRESSEE	B. COPIES		
	DRAFT	REG	FINAL REPRO		DRAFT	REG	FINAL REPRO
AFZ-100	1/1	1/1					
AMA-430	1/1	1/1					
AMQ-240	LT ONLY	LT ONLY					
(A) TOTAL →	2/2	2/2		(B) TOTAL →			

15. TOTAL OF A & B → 4/4

16. REMARKS:

BLOCK 12 30 DAYS PRIOR TO JAI OF FIRST UPS DELIVERED UNDER THIS CONTRACT.
 BLOCK 13 15 DAYS AFTER RECEIPT OF GOVERNMENT COMMENTS.
 BLOCK 14 DELIVER TO EACH ADDRESSEE 1 HARDCOPY & 1 SOFT COPY.

17. PRICE GROUP:		18. ESTIMATED TOTAL PRICE:	
G. PREPARED BY VANESSA DIXON/AFZ-100	H. DATE	I. APPROVED BY	J. DATE

**PART III SECTION J
ATTACHMENT J.4**

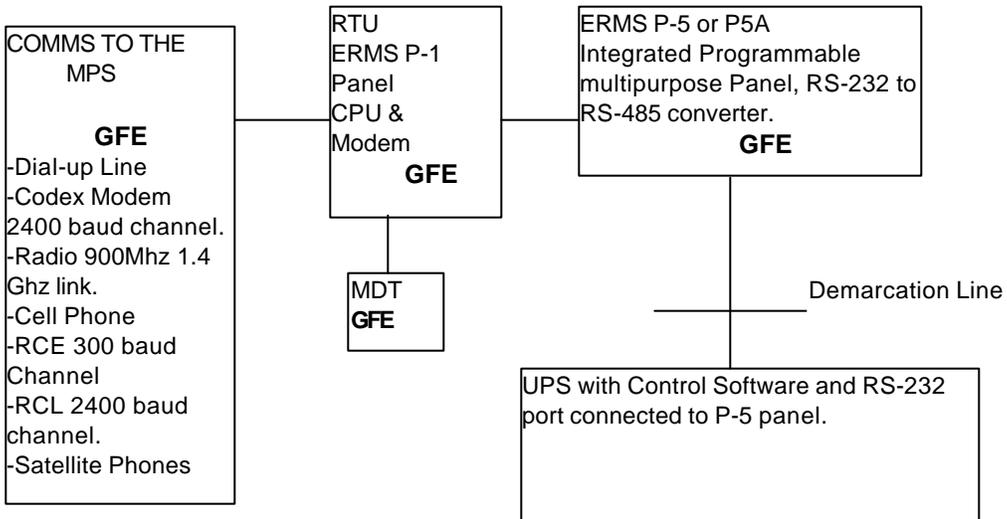
Data Item Descriptions (DID) Cover sheet

<u>NUMBER</u>	<u>TITLE</u>
M001	Program Management Plan
M002	Program Management Report
M003	Conference Support Services
Q001	Quality Assurance Plan
Q002	Equipment Quality Control Test Report
Q003	Contractor's Configuration Management Plan
E001	Software Interface Document
E002	Site Survey Report
E003	Engineering Design Documents
E004	Site Preparation and Installation Documents
L001	Integrated Support Plan (ISP)
L002	Recommended Spare Parts List (RSPL)
L003	CLS Supply Support, Technical Assistance, and CLS Cost Reporting
L004	Support Equipment Candidate List (SECL)
L005	Commercial Support Documentation (CSD)

Training DIDs, associated with CDRLS, can be found in FAA-STD-028C. Vendors can print a copy of this standard from the following web site:
www.faa.gov/ahr/policy/hrpm/hroi/ld/028c.cfm.

DATA ITEM DESCRIPTION	
1. TITLE Software firmware Documentation	2. IDENTIFICATION NUMBER DI-FAA-E001
3. DESCRIPTION/PURPOSE Facilitate a remote maintenance and monitoring connection between the UPS software control system and the FAA's Maintenance Processor System (MPS).	4. APPROVAL DATE February 9, 2003
	5. RESPONSIBLE OFFICE AOS-1000
	REFERENCE None.
7. APPLICATION/INTERRELATIONSHIP	
8. Contractor is require to provide a Software Interface Document. The document shall define the serial data stream protocol accessible from the UPS's RS-232 port. At a minimum the following information is required for this document: <ol style="list-style-type: none"> 1) Listing of all data points monitored and controlled. 2) Define the serial data stream; is it a serial protocol or network protocol. Provide the definition of the serial data protocol for conversion to FAA subsystem protocol. 3) Define what is needed to receive commands from the ERMS remote telemetry unit (RTU). 4) The document must contain the necessary detailed information allowing the FAA to write a software program interface to functionally connect the UPS software and the ERMS RTU software. <p>Document Submittal: Provide two hardcopies of the Software Interface Document. If, softcopy is available, not required for satisfaction of this DID, provide MS Word for windows 95 or 97 version. Provide softcopy on 3 1/2" floppy disk or CD ROM.</p>	

Remote Maintenance Monitoring System



DATA ITEM DESCRIPTION

1. TITLE Site Survey Report	2. IDENTIFICATION NUMBER DI-FAA-E002
3. DESCRIPTION/PURPOSE Site investigation for power system work	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP	
10. PREPARATION INSTRUCTIONS	
<p>This document establishes the requirements for: Site Survey Report</p> <p>10.1 General. The Microsoft versions of Word, Excel, and Project and AutoCAD MicroStation will evolve with time therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy on 3 ½" floppy disk or CD ROM.</p> <p>10.1.1 Written documents shall be furnished in the following format:</p> <ul style="list-style-type: none">a) Hard copy on 8.5" x 11" paper.b) Hard copy drawing inserts maximum 11" x 17".c) Soft copy MS Word, Windows 95 or 97 version for text.d) Drawings could be PDF files or graphic inserts into Word documents. <p>10.1.2 Spreadsheet documents shall be delivered in the following format:</p> <ul style="list-style-type: none">a) Hard copy on 8.5" x 11" paper.b) Soft copy MS Excel, Windows 95 or 97 version. <p>10.1.3 Project Schedules shall be furnished in the following format:</p> <ul style="list-style-type: none">a) Hard copy on 8.5" x 11" Portrait or Landscape.b) Softcopy MS Project, Windows 98 version. <p>10.1.4 CADD drawings shall be delivered in the following format:</p> <ul style="list-style-type: none">a) Hard copy on Drawing size "A", "B" or "D".b) Softcopy provided in AutoCAD .dwg and .dxf translatable to MicroStation .dgn drawing format. AutoCAD version 13 or later <p>10.2 Site Survey Report. Use 8.5" x 11" paper in binder. Use 11" x 17" fold outs as necessary for larger drawings. Cost estimate shall be Construction Specification Institute's Division 1 through 17 format. Example: Mechanical costs are listed under Division 15, and Electrical costs are in Division 16.</p> <p>10.3 TASK DELIVERABLES: Site Survey Report.</p>	

DATA ITEM DESCRIPTION

1. TITLE Engineering Design Documents	2. IDENTIFICATION NUMBER DI-FAA-E003
3. DESCRIPTION/PURPOSE Provide Engineering design services for Installation of power system equipment and any modifications necessary to support that equipment.	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP	
10. PREPARATION INSTRUCTIONS Tasks for engineering design services: Complete power system design. DOCUMENT SUBMITTAL STANDARDS 10.1 General. The Microsoft versions of Word, Excel, and Project and AutoCAD and MicroStation will evolve with time therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy on 3 ½" floppy disk or CD ROM. 10.1.1 Written documents shall be furnished in the following format: a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17". c) Soft copy MS Word, Windows 95 or 97 version for text. d) Drawings could be PDF files or graphic inserts into Word documents. 10.1.2 Spreadsheet documents shall be delivered in the following format: a) Hard copy on 8.5" x 11" paper. b) Soft copy MS Excel, Windows 95 or 97 version. 10.1.3 Project Schedules shall be furnished in the following format: a) Hard copy on 8.5" x 11" Portrait or Landscape. b) Softcopy MS Project, Windows 98 version. 10.1.4 CADD drawings shall be delivered in the following format: a) Hard copy on Drawing size "A", "B" or "D". b) Softcopy provided in AutoCAD .dwg and .dxf translatable to MicroStation .dgn drawing format. AutoCAD version 13. 10.2 ENGINEERING DESIGN DOCUMENTS. 10.2.1 <u>Specifications</u> . Specifications shall be prepared by the Contractor in accordance with Construction Specification Institute (CSI) three part format (PART 1-GENERAL, PART 2-PRODUCTS, PART 3-EXECUTION) performance based specifications. NAFAC and COE guide specifications conform to the CSI format. Division 1 of the specifications shall conform to the template found in Part III Section J Attachment J.4. 10.2.2 <u>Drawings</u> . The Contractor shall submit a complete set of reproducible drawings for the final designs. The designs shall be prepared on standard FAA "D" size sheets 36" by 24. Prior to the start of work, the Contractor shall coordinate with the UPS Program Office, AOS-100, for CADD standards to be used in the design document deliverable drawings. This coordination will include standard symbols library, naming conventions, layering schemes, standard fonts, database setup, standard title blocks, etc. 10.2.3 <u>Design Data Handbook</u> . The Contractor shall prepare a Design Data Handbook for each design	

or site adaptation. This handbook shall be presented for review at the points of design specified in paragraph 12. The purpose of the handbook is to convey complete information on the development of various designs. The handbook shall contain the following:

- (a) Design assumptions and parameters for each engineering discipline.
- (b) All design calculations for each engineering discipline.
- (c) All manufacturers data for specified items, including catalog cuts, specification sheets, etc

10.2.4 Cost Estimate. The cost elements shall follow the same format as CSI and NAVFAC specification divisions and sections. Contractor shall prepare cost estimates for the completed construction design. The construction cost estimate shall include escalation cost. A recognized National Standard Cost Index shall be appropriately used in preparation of construction project cost estimates.

10.3 Document Submittal Standards. When specified, the Contractor shall submit ten (10) copies, unless otherwise directed, of the specifications, construction drawings, design data handbooks, cost estimates and reports for review at the following points of design for each assigned task.

- (a) 10% Review.
- (b) 50% Review.
- (c) 100% Review.
- (d) Final Submittal

The Government shall be allowed review time after each submittal. The final submittal, as specified in the task, shall follow the 100% Review.

10.3.1 Definitions. The following are general definitions of the various review percentages.

- (a) The 10% review should include floor plan concepts for all disciplines, major sits specific elements, a specification outline with proposed components, and a preliminary construction cost estimate. This review may be conducted at the project site.
- (b) The 50% review should include all designs complete, calculations complete, draft specification, an up to date Design Data Handbook and a construction cost estimate. This review maybe conducted at the project site. Attendance by the A/! Project Manager and key design personnel.
- (c) The 100% review should include all details complete, all cost estimates complete, instruction books and the specifications fully coordinated, all FAA review comments incorporated, and an updated Design Data Handbook. All documents should be ready for signature and professional seal.
- (d) The Final Submittal shall include all items complete including the Design Data Handbook and the specification documents in proper form for advertisement. All documents shall sealed by a registered professional engineer or licensed architect.

10.4 TASK DELIVERABLES

The Contractor, at completion of the design task, shall deliver the following final comments:

- (a) Final Drawings per paragraph 10.1.4
- (b) CADD per paragraph 10.1.4.
- (C) Specification volumes, bound, per paragraph 10.1.1
- (d) Specification soft copy per paragraph 10.1.1
- (e) Design Data Handbook per paragraph 10.1.1
- (f) Mechanical/Electrical Systems Instruction Book.
- (g) Construction Cost Estimate per paragraph 10.1.2
- (h) Construction schedule per paragraph 10.1.3.

Delivery.- The Contractor shall be responsible for the delivery of documents required by this engineering requirement to the contracting officer or his designated representative.

DATA ITEM DESCRIPTION

1. TITLE Site Preparation and Installation Documents	2. IDENTIFICATION NUMBER DI-FAA-E004
3. DESCRIPTION/PURPOSE Installation of power system equipment and any modifications necessary to support that equipment.	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP	
10. DOCUMENT PREPARATION INSTRUCTIONS	
<p>10.I General. The Microsoft versions of Word, Excel, and Project and AutoCAD and MicroStation will evolve with time therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy on 3 ½" floppy disk or CD ROM.</p> <p>10.1.1 Written documents shall be furnished in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17". c) Soft copy MS Word, Windows 95 or 97 version for text. d) Drawings could be PDF files or graphic inserts into Word documents. <p>10.1.2 Spreadsheet documents shall be delivered in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on 8.5" x 11" paper. b) Soft copy MS Excel, Windows 95 or 97 version. <p>10.1.3 Project Schedules shall be furnished in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on 8.5" x 11" Portrait or Landscape. b) Softcopy MS Project, Windows 98 version. <p>10.1.4 CADD drawings shall be delivered in the following format:</p> <ul style="list-style-type: none"> a) Hard copy on Drawing size "A", "B" or "D". b) Softcopy provided in AutoCAD .dwg and .dxf translatable to MicroStation .dgn drawing format. AutoCAD version 13. <p>10.2 TASK DELIVERABLES</p> <p>10.2.1 General.- The Contractor, at completion of the design task, shall deliver the following:</p> <ul style="list-style-type: none"> (a) Division 1 Specification deliverables per paragraphs 10.1.1, 10.1.2 and 10.1.3. (b) Power cut over and outage schedule. (c) Project Construction Schedule per paragraph 10.1.3 (d) Equipment Start-up test report. (e) Contractor Acceptance Inspection report. The CAI report format is found in Part III Section-J, Attachment J.5. (f) As-Built Drawings per paragraph 10.1.4. <p>10.2.2 Delivery.- The Contractor shall be responsible for the delivery of documents required by this engineering requirement to the contracting officer or his designated representative.</p>	

DATA ITEM DESCRIPTION

<p>1. TITLE: INTEGRATED SUPPORT PLAN (ISP)</p>	<p>2. IDENTIFICATION NUMBER L001 (DI-FAA ISP-001)</p>
<p>3. DESCRIPTION/PURPOSE</p> <p>3.1 The Integrated Support Plan (ISP) describes the Contractor's plans for the management, control, execution, interface, and integration of all aspects of the Contractor's Integrated Logistic Support (ILS) Plan.</p> <p>3.2 The ISP consists of the following sections:</p> <ol style="list-style-type: none"> 1. Introduction. 2. Summary of System Characteristics. 3. ILS Program Management, Organization, and Execution. 4. Milestone Schedules. <p>3.3 The Contractor may demonstrate compliance with the requirement to provide ISP by providing the Government with either; an ISP, the applicable portions of their ISO 9000 series certification documentation, or a copy of internal corporate documentation that support both the scope and intent of the ISP as described in this paragraph and others within this DID.</p> <p>3.3 The ISP or equivalent documentation is used by the Government to evaluate, monitor, and approve the Contractor's planning and performance of the ILS Program Task(s) as specified in the contract.</p>	<p>4. APPROVAL DATE February 9, 2003</p>
	<p>5. RESPONSIBLE OFFICE AOS-1000</p>
	<p>6. REFERENCE FAA AMS</p>
<p>7. APPLICATION/INTERRELATIONSHIP</p> <p>7.1 This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the contract.</p>	
<p>10. PREPARATION INSTRUCTIONS</p> <p>10.1 Reference Documents. The applicable issue of the documents cited herein, including their approval dates and the dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.</p> <p>10.2 General. The ISP or Contractor's ISO series 9000 documentation shall document the Contractor's management plans for gathering and analyzing data; management, control, and execution; integration and interface of the ILS Program Task(s) delineated in the contract. The Contractor's management plans shall demonstrate that the new system or equipment, when fielded, will satisfy all supportability criteria.</p> <p>10.3 Format and Content. Contractor format may be used for either their ISO 9000 series documentation or internal corporate documentation. The format and content requirements for the ISP shall be as follows:</p> <p>10.3.1 Organization and Preparation. The ISP shall be organized into four (4) major sections. The specific content of each major section shall be in accordance with the requirements set forth herein. The ISP shall be machine printed on loose durable white paper. Page size shall be 8-1/2 by 11 inches. Pages shall be punched suitable for binding in a three ring loose leaf binder. In addition to the required hard copy, the contractor is requested to provide the Government with an additional electronic copy, if available.</p>	

10. PREPARATION INSTRUCTIONS Continued:

10.3.2 Sections. The ISP shall contain all sections identified in this paragraph even if there are no data or narratives required for a section or element (e.g., if there are no tasks, requirements, or other standards, the Contractor shall enter "NOT APPLICABLE" and state the reason(s), e.g., "NOT REQUIRED BY CONTRACT".

**INTEGRATED SUPPORT PLAN
(ISP)
SECTION 1
INTRODUCTION**

SECTION 1 - Introduction. This section shall identify the ISP Requirements as specified in the Statement of Work (SOW). This section shall be formatted and contain the data as shown below:

Purpose and Scope. Provide a concise statement on the scope and intended purpose of the ISP as the document for managing and executing the contractual ILS Program.

ISP Summary. Provide a concise description of the ISP sufficient to establish a clear understanding of the total scope, content, and organization of the material.

Updating Process. Provide a description of the manner in which changes and revisions to the content of the ISP shall be developed, approved, and incorporated therein.

**INTEGRATED SUPPORT PLAN
(ISP)
SECTION 2
SUMMARY OF SYSTEM CHARACTERISTICS**

SECTION 2 - Summary of System Characteristics. This section shall be a summary of the details contained in the Contractor's System Specifications and shall provide an understanding of the significant characteristics of the system and the manner in which the system shall be employed in its intended operational environment. This Section shall be formatted and contain the data as shown below:

System/Equipment Description. Provide a brief description of functional and physical characteristics of the system and its major subsystems for each model and type of system provided. Also, include a description of the physical and functional relationships between the contract end item and associated systems with which they shall interface when operational. Use block diagram(s) or other graphic means to support the text.

Operating Environment. Describe the operational environment. Include annual operating hours, duty cycles, maximum allowable downtime, life expectancy, environment, and other requirements, as applicable.

Availability Requirements. State the operational availability as contained in the Contractor's System Specifications. Include predicted and demonstrate values, when available.

Reliability Requirements. State the reliability as contained in the Contractor's System Specifications. Include Mean time Between Failure (MTBF) and Mean time To Repair (MTTR). Include predicted and demonstrate values when available.

Quantitative Maintainability Requirements. State the Quantitative Maintainability Requirements contained in the Contractor's System Specifications. Include requirements for test points, and built-in-test, manpower and personnel constraints, and other requirements, as applicable.

Maintainability Design Criteria. Summarize the Maintainability Design Criteria developed in response to the Maintainability Requirements.

10. PREPARATION INSTRUCTIONS Continued:

Other Requirements. Summarize any other logistic-related requirements no listed above.

INTEGRATED SUPPORT PLAN

(ISP)
SECTION 3
ILS PROGRAM MANAGEMENT, ORGANIZATION, AND EXECUTION

SECTION 3 - ILS Program Management, Organization, and Execution. This Section shall provide a description of the overall process, involving both the Government and the Contractor, that shall be used in managing and executing the contractual ILS Program. This Section shall be formatted and contain the data as shown below:

Contractor's Objectives, Policies, and General Management Procedures. State the objectives, policies, and general management procedures that relate to the ILS Program.

Contractor's ILS Organizational Structure. Describe the organizational structure that has been selected to accomplish the contractual ILS Program effort. Identify names, positions, functions, responsibilities, and authority of those responsible for satisfying the contractual ILS Program Requirements.

Sub-Contractor and Vendor Interface Management. List the major subcontractor's involved in the ILS Program, and describe the scope of ILS work assigned to each, the method of controlling the accomplishment of this work, and the organizational interfaces established with each subcontractor. Include a general description of the method of specifying ILS Requirements in vendor purchase orders and controlling the accomplishment of specific work and deliverables.

Government ILS Organizational Interfaces. Describe the Government ILS organization and indicate the relationship with the Contractor's ILS organization delineated in Section 3, Contractor ILS Organizational Structure, above.

INTEGRATED SUPPORT PLAN
(ISP)
SECTION 4
MILESTONE SCHEDULES

SECTION 4 - Master Milestones. This section shall contain the Master Milestones as planned and scheduled for the ILS effort. This section shall be formatted and contain the data shown below:

Master Milestone Chart. The Master Milestone Chart to include all program milestones and all ILS Program Tasks as defined in the NAILS CDRLs/DIDs.

DATA ITEM DESCRIPTION

1. TITLE RECOMMENDED SPARE PARTS LIST (RSPL)	2. IDENTIFICATION NUMBER L002 (DI-FAA RSPL-001)
3. DESCRIPTION/PURPOSE 3.1 The Recommended Spare Parts List (RSPL) is a listing of the contractor's Recommended Spare parts for both on-site and depot, to maintain the System. It will be used by the Government to determine Spare Parts Stocking Levels.	4. APPROVAL DATE February 9, 2003
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE FAA AMS
7. APPLICATION/INTERRELATIONSHIP 7.1 This data Item Description (DID) contains the format and content preparation instructions for the Data Product generated by the specific and discrete Task Requirement for this Data included in the Contract.	
10. PREPARATION INSTRUCTIONS 10.1 General. The List(s) shall contain contractor's recommended quantities of both site and depot Spare Part required for each model of UPS that the Government may purchase under this contract. The criteria for spare parts (both site and depot) shall be based on Contractor's failure/usage data. The source of failure/usage rates and methodology for spares computation shall be included as a preface to the recommended spares list(s). Tools and support/test equipment shall not be included on the recommended spares lists. Both a site and depot recommended spare parts lists shall be submitted for each model of the end item of equipment that could be or has been previously purchased by the Government. The List(s) shall be broken down to the Lowest Replaceable Unit (LRU). The lists shall be prepared using Contractor's format (see minimum items of information below). The List shall contain, as a minimum, the following information for each item: <ul style="list-style-type: none">a. Item Name/Description.b. Manufacturer's/Vendors Part Numberc. NSN (if available)d. Manufacturer's CAGE Code (if available)e. Recommended quantity for site sparesf. Recommended quantity for depot sparesg. Unit priceh. h. Remarks 10.2 Format. The Microsoft versions of Word, and Excel will evolve with time, therefore the Government reserves the right to change soft copy versions as the agency upgrades its LAN enterprise services. Provide softcopy on 3 ½" floppy disk or CD ROM. 10.2.1 Written documents shall be furnished in the following format: <ul style="list-style-type: none">a) Hard copy on 8.5" x 11" paper.b) Soft copy MS Word, Windows 95 or 97 version for text. 10.2.2 Spreadsheet documents shall be delivered in the following format: <ul style="list-style-type: none">a) Hard copy on 8.5" x 11" paper.b) Soft copy MS Excel, Windows 95 or 97 version.	

DATA ITEM DESCRIPTION	
1. TITLE CONTRACTOR LOGISTICS SUPPORT (CLS) SUPPLY SUPPORT AND TECHNICAL ASSISTANCE, AND CLS COST REPORT	2. IDENTIFICATION NUMBER L003 (DI-FAA CLS-001)
3. DESCRIPTION/PURPOSE 3.1 The CLS Supply Support and technical Assistance, and CLS Cost Report is used to collect data from the logistic support contractor. 3.2 The technical assistance data is used to track field and second level assistance requirements. The supply support data is used to track parts usage. CLS cost data is used to evaluate contract performance, identify the magnitude and impact of actual or potential problem areas causing significant cost and schedule variances and provide timely program status information.	4. APPROVAL DATE February 9, 2003
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE FAA AMS
7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and content preparation instructions for the data products generated by the specific task requirements included in the contract. 7.2 This DID is applicable when a contractor is required to perform logistic support.	
10. PREPARATION INSTRUCTIONS 10.1 <u>Format and Content.</u> The report shall consist of a cover letter and spreadsheet data on supply support and technical assistance support. The cover letter shall display the report title, date, the period covered by the report, the current contract number, and the preparing and approving official's signature block and signature. This information shall be provided in Hard Copy and Electronic Media per the CDRL. Electronic media and spreadsheet format will be approved during the Logistics Guidance Conference. 10.1.1 <u>Supply Support Required Data</u> Column A: <u>SITE.</u> The three (3) letter FAA Site Designator, or the actual FAA equipment name and city of the FAA Site goes in this block. Column B: <u>CLSP/N.</u> If applicable, this is the part number assigned by the CLS to track Line Replaceable Units (LRU's) made by the CLS contractor and any Original Equipment Manufacturers (OEM) parts for consistency in ordering and tracking. Column C: <u>OEMP/N.</u> This is the part number used by the Original Equipment Manufacturer to identify OEM LRU's. Column D: <u>OEMMEGR.</u> Noun name of the OEM manufacturer. (<i>If the CLS contractor manufactures parts for the system under CLS, he is also an OEM manufacturer</i>) Column E: <u>C/E.</u> Abbreviations for "Consumable"/"Expendable". Enter the single letter code to identify the type of LRU. Column F: <u>NOMENCLATURE.</u> This is the noun name associated with the CLS contractor and OEM LRU part numbers. Column G: <u>END ITEM SUBASSEMBLY USED ON.</u> The LRU to be replaced is installed in a "Subassembly" which ultimately goes into the "System End Item". Column H: <u>DATE ORDER RECV'D @contractor's.</u> Date the order was received from the FAA Logistics Center (FAALC) CLS Desk.	

Column I: FAALC VOUCHER NUMBER. This is an eight (8) digit number assigned by the CLS Desk at the FAALC to track LRU's being ordered by the FAA Sites.

Column J: PRI. This is the priority assigned by the FAA site, when the LRU is ordered. FAA priorities are defined in SOW 3.6.3.7.

Column K: DATE NEW LRU SENT TO SITE. This is the date that the CLS actually sends the LRU to the FAA Site, or has the LRU drop shipped to the FAA Site by an OEM Vendor.

Column L: QTY SHIPPED. Total quantity of the individual LRU that has been ordered by an FAA Site, and then shipped to that FAA Site.

Column M: SHIP MODE. Type of shipping mode used by the CLS to ship the LRU to the FAA Site. (FEDEX, UPS, etc.)

Column N: BILL OF LADING NUMBER. Shipping Companies (FEDEX, UPS, etc.) tracking number.

Column Q: LRU DISCREPANCY. If available, list the LRU discrepancy originated by the FAA Site.

Column T: COST OF ITEM. Cost to repair or replace an LRU that is being returned to CLS Stock as ready for issue.

10.1.2 Technical Assistance Data This section contains information concerning man-hour accounting for contractor personnel at each maintenance site (this includes Travel, On-site and In-plant Technical Assistance) for the period being reported. This report shall be in **contractor format**, as approved by the Government. It shall be delivered in both "**Hard Copy**" and "**Electronic Media.**" Data points and contractor format shall be submitted by the contractor at the Logistics Guidance Conference for Government approval.

10.1.3 Monthly CLS Cost Report. CLS cost reporting will be used by the FAA Program Manager to evaluate contract performance, identify the magnitude and impact of actual and potential problem areas causing significant cost and schedule variances. Recommended data points and contractor format shall be submitted by the contractor at the Logistics Guidance Conference for Government approval.

10.1.4 Annual Consolidated/Cumulative Maintenance and Cost Report. The contractor shall submit an Annual Consolidated/Cumulative Report based on the Monthly reporting requirements of this DID, and shall be in the same format as approved by the Government for the monthly reporting.

DATA ITEM DESCRIPTION

<p>1. TITLE SUPPORT EQUIPMENT CANDIDATE LIST (SECL)</p>	<p>2. IDENTIFICATION NUMBER L004 (DI-FAA SECL-001)</p>
<p>3. DESCRIPTION/PURPOSE</p> <p>The recommended Support Equipment Candidate List identifies the test parameter requirements for maintenance, test, alignment, and calibration to support maintenance during the operational lifecycle of a system or equipment. This list also identifies the unique and special tools, materials, and test equipment required to support maintenance. This recommended requirements list provides the basis for the using activity to determine if existing general purpose test equipment can be utilized. The unique and special tools, materials, and test equipment list provides the basis for the acquisition and subsequent support of each new item</p>	<p>4. APPROVAL DATE</p> <p>February 9, 2003</p>
	<p>5. RESPONSIBLE OFFICE AOS-1000</p>
	<p>6. REFERENCE FAA AMS</p>
<p>7. APPLICATION/INTERRELATIONSHIP</p> <p>This data item contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement delineated in the contract.</p>	
<p>10. PREPARATION INSTRUCTIONS</p> <p>The recommended Support Equipment Candidate List includes the support equipment, tools, and materials, including computer maintenance and support hardware and software required to maintain the system or equipment at the level of maintenance identified in the contract. The recommended support equipment list shall contain two separate parts, a general purpose support equipment list and a special purpose support equipment list.</p> <p><u>General purpose support equipment recommendations.</u> This part includes the generic support equipment that is commercially available and can normally be used for more than one purpose. (sample format Figure 1.)</p> <p><u>Special purpose support equipment recommendations.</u> This part lists unique jigs, fixtures, and special support equipment, including single source and proprietary items. (Sample format Figure 2.)</p> <p><u>Item Information.</u> Provides the following information for each item of recommended support equipment on the list. Pertains to both general and special purpose recommended support equipment lists.</p> <p><u>System or equipment under test.</u> Identifies the application of a recommended test item, system, or component. Items subject to test shall be identified by the following: Manufacturer/Government Entity (CAGE) code. Model/Part Number Item Name</p> <p><u>Parameters to be tested.</u> Describe the test, adjustment, or calibration to be performed. Be as general as possible, including only absolute requirements. This information reflects the actual characteristics required by the prime equipment rather than the characteristics of the particular model of support equipment recommended. Include the following: Nature of test Value or range of values</p>	

Tolerance of these values

General purpose support equipment.

List the generic name for each item, such as, oscilloscope, voltmeter, etc.

Special purpose support equipment.

When a specific item of support equipment is recommended, include the Manufacturer/CAGE code, the Model/Part Number, and the item name. Include a statement justifying the selection of each item of special purpose support equipment. Include the unit price for each of these items.

Quantity On-Site

Record the number of each support equipment item required to perform the test described at the local site..

SAMPLES FORMATS

{PRIVATE } GENERAL PURPOSE SUPPORT EQUIPMENT				
SE ITEM NO	SYSTEM/EQUIPMENT UNDER TEST	PARAMETERS TO BE TESTED	RECOMMENDED TEST EQUIPMENT	QTY ON SITE
1	ACCUDATA 117 DC AMPLIFIER (0BC28)	30 HZ - 20 KHZ @ 1 VRMS +/- 5% BANDPASS	RMS VOLTMETER	1
2	SAME	10 V P-P FROM 30 HZ - 20 KHZ VISUAL DISTORTION	OSCILLOSCOPE	1
3	SAME	DC PWR SUPPLY 5 VDC +/- 0.01V 10 VDC +/- 1V 14.5 VDC +/- 0.1V W/100 KOHM MIN INPUT IMPEDANCE	DC VOLTMETER	1
4	GENERAL/MULTIPLE USE	AC LINE CORD CONTINUITY	MULTIMETER	1
5				

Remarks:

FIGURE 1, Sample Format

{PRIVATE } SPECIAL PURPOSE TEST EQUIPMENT				
SE ITEM	SYSTEM/EQUIPMENT UNDER TEST	PARAMETERS TO BE TESTED	RECOMMENDED SUPPORT EQUIPMENT	QTY ON

NO				SITE
1	85-02277-002 (33875) HEATSINK ASSY	RECTIFIER INSTALLATION ADJUSTMENT	ALIGNMENT TOOL GE 118C8388P1	1
2	441C RECORDER PRECISION ECHO (54089)	TAPE TENSION ADJUSTMENT	TAPE TENSION GAGE T2-H20-1 TENDEL (54632)	1
3	HP-3964A (28580) RECORDER	POWER REGULATION 85-135 VAC	TRANSFORMER VARIABLE MT3A GENRAD (24655)	1
4				
5				

Justification statement:

1. This alignment tool is specifically designed for replacement of the rectifier and if not used will cause early failure of the rectifier due to insufficient heat transfer via the heat sink. No other tool available meets the requirements. Unit cost is \$50.00 EA
2. This is the only known gage that will accurately measure tape tension for this adjustment. Unit cost \$350.00 EA
3. No other transformer available meets requirements. Unit cost is \$212.00 EA

FIGURE 2, Sample Format

DATA ITEM DESCRIPTION

<p>1. TITLE COMMERCIAL SUPPORT DOCUMENTATION (CSD)</p>	<p>2. IDENTIFICATION NUMBER L005 (DI-FAA CSD-001)</p>
<p>3. DESCRIPTION/PURPOSE</p> <p>3.1 Provides the requirements necessary for the commercial support documentation (CSD) to support UPS Systems purchased from the Contractor.</p>	<p>4. APPROVAL DATE February 9,2003</p>
	<p>5. RESPONSIBLE OFFICE ARN-300</p>
	<p>6. REFERENCE FAA AMS</p>
<p>7. APPLICATION/INTERRELATIONSHIP</p> <p>7.1 This Data Item description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirements as delineated in the contract.</p> <p>7.2 Maintenance Concept:</p> <p>1. FAA technicians will perform all of the tasks that the Contractor's Customer Service Engineer or Field Service Engineer(s) perform during visits to a customer site(s). Tasks shall include, but are not limited to, inspection of equipment, troubleshoot/diagnosis to fault, removal of failed parts/LRU(s), replacement of failed parts/LRU(s) and validation and certification (if applicable) that the system is operational and available for operation.</p> <p>2. The level of documentation and training provided to the government (FAA technicians) shall therefore be commensurate to that provided by the Contractor to their Customer Service Engineers or equivalent Customer/Field Service Personnel.</p>	
<p>10. PREPARATION INSTRUCTIONS</p> <p>10.1 Format. Contractor format is authorized and encouraged. Whether produced by Automated or Manual means, it shall be three-hole punched at the left side, for use in a standard three-ring binder. A single copy of the deliverable shall consist of both a paper copy and an electronic media disk(s).</p> <p>10.2 Baseline Documentation</p> <p>The Government product baseline, for all items ordered under this contract and for Legacy Powerware Systems previously purchased by the FAA shall consist, as a minimum, of the documentation listed below:</p> <ol style="list-style-type: none"> 1. Technical Instruction Manuals (applicable to ordered hardware, software, &/or firmware) 2. Service/Technical Bulletins (applicable to ordered hardware, software, &/or firmware) 3. Maintenance Manuals (applicable to ordered hardware, software, &/or firmware) 4. Engineering Drawings & Schematics (applicable to ordered hardware, software, &/or firmware) 5. Illustrated Parts Breakdown(s) (IPB) (Applicable to ordered hardware) 6. Commercial Parts Price list(s) (applicable to ordered hardware, software, &/or firmware) 7. Applicable Commercial Catalogs (applicable to ordered hardware, software, &/or firmware) 8. Other documentation, as requested by the Government 	

NOTE: Training documentation requirements are addressed in Paragraph 3.7.3 and CDRL
L-006/DID DI-FAA COTS TMR-001

DATA ITEM DESCRIPTION

1. TITLE PROGRAM PLAN	2. IDENTIFICATION NUMBER DI-FAA-M001
3. DESCRIPTION/PURPOSE 3.1 The Program Plan describes and depicts the Contractor's management structure. 3.2 The Program Plan provides current information which is used to describe the Approach, Resources, and Needs of the contractor to perform the Effort.	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE AMS
7. APPLICATION/INTERRELATIONSHIP This Data Item Description (DID) contains the format and preparation instructions for the Data Product generated by the Specific and Discrete Task Requirements as delineated in the Contract.	
10. PREPARATION INSTRUCTIONS 10.1 <u>Format.</u> The Program Plan format shall be contractor selected. The submission shall be 8 1/2 by 11 inch paper. One way foldouts may be used for graphic material. Written documents shall be furnished in the following format: a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17". c) Soft copy MS Word, Windows 95 or 97 version for text. d) Drawings could be PDF files or graphic inserts into Word documents. 10.2 <u>Content.</u> The Program Plan shall provide information on the contractor's organization, practices and techniques to be used in managing the Program, specifically Management of Subcontracts. 10.2.1 The Plan shall specifically contain the following: a. A Chart showing the Structure of the Program Organization by Title and Name. Identify the Program Office, Support contractor's, and Major Subcontractors. b. A Chart showing the Relationship of the Program Functions to the Functional Organizations indicating Lines of Authority and Communications	

DATA ITEM DESCRIPTION

1. TITLE PROGRAM MANAGEMENT REPORT	2. IDENTIFICATION NUMBER DI-FAA-M002
3. DESCRIPTION/PURPOSE Report on the status of the program projects and orders.	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP This Data Item Description (DID) provides the format and preparation instructions for the Data Product generated by the Specific and Discrete Task Requirements as delineated in the Contract.	
10. PREPARATION INSTRUCTIONS 10.1 <u>Format.</u> The Program Management Report format shall be contractor selected. The submission shall be 8 1/2 by 11 inch paper. One way foldouts may be used for graphic material. Written documents shall be furnished in the following format: a) Hard copy on 8.5" x 11" paper. b) Hard copy drawing inserts maximum 11" x 17". c) Soft copy MS Word, Windows 95 or 97 version for text. d) Drawings could be PDF files or graphic inserts into Word documents. 10.2 <u>Content.</u> The Program Management Report shall provide information on the status of the program and on program planning. The report shall contain at least the following information: 1. Accomplishments and shortfalls of performance during the reporting period; 2. Planned activities for the next reporting period; 3. Outstanding action items; 4. Status of work relating to milestones and any near term and long term schedule changes; 5. Financial status comparisons between planned and actual expenditures against the current and projected budgets; 6. Problems and issues; 7. Assessment of risks; 8. Planned implementation trends; 9. Implications of changes in the software management matrix; 10. Logistics program elements (including activities under: CLINs 0018; 0020; 0021; & 0022) status update; and 11. Special interest and action items.	

DATA ITEM DESCRIPTION	
1. TITLE CONFERENCE SUPPORT SERVICES	2. IDENTIFICATION NUMBER Di-FAA-M003
3. DESCRIPTION/PURPOSE The purpose of this DID is to describe the content and format requirements for presentation materials	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE: AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP This DID is applicable to	
10. PREPARATION INSTRUCTIONS	
<p>10.1 Contractor's format may be used for handouts, viewgraphs, audio/visual briefings, etc.</p> <p>10.2 Contents shall include, but are not limited to:</p> <ul style="list-style-type: none"> <input type="checkbox"/> PMR: see SOW Paragraph 3.1.4 <input type="checkbox"/> TIM: See SOW Paragraph 3.1.5 <input type="checkbox"/> ILSMT: specific accomplishments, activities, issues, action plans, and action items under each element of logistics (see SOW 3.6.1.2 for element list) <input type="checkbox"/> LGC: specific content noted in SOW 3.6.1.2.2 <input type="checkbox"/> TGC: content specified in SOW 3.7.4.1.1 <input type="checkbox"/> CLSR: review suggested resolution of supply support problems, technical assistance issues/concerns, and cost and schedule issues <p>10.3 Meeting Minutes. Contractor's format used for recording meeting minutes, softcopy distribution to Attendees.</p>	

DATA ITEM DESCRIPTION

<p>1. TITLE</p> <p>QUALITY ASSURANCE (QA) PLAN</p>	<p>2. IDENTIFICATION NUMBER</p> <p>DI-FAA-Q001</p>
<p>3. DESCRIPTION/PURPOSE</p> <p>3.1 This plan is used to document the details of the contractor's Quality Assurance system, including management commitment to quality, system elements, policy and practices.</p> <p>3.2 This plan provides the Government contracting activity a basis for assessment of the quality system and evidence of the contractor's intent to comply with the contract quality requirements.</p>	<p>4. APPROVAL DATE</p> <p>August 8, 2002</p>
	<p>5. RESPONSIBLE OFFICE</p> <p>AOS-1000</p>
	<p>6. REFERENCE</p> <p>FAA-STD-013C; FAA-STD-016; & FAAD-STD-1293B</p>
<p>7. APPLICATION/INTERRELATIONSHIP</p> <p>7.1 This DID contains the format and content preparation instructions generated by the specific and discrete task requirements as delineated in the contract.</p> <p>7.2 This DID is applicable when any of the following standards are cited in the contract: Federal Aviation Administration (FAA) Standard FAA-STD-013C, FAA-STD-016, and FAAD-STD-1293B.</p>	
<p>10. PREPARATION INSTRUCTIONS</p> <p>10.1 The QA Plan shall be in accordance with the requirements of the specific standards cited in the contract. The Plan shall include traceability from the quality elements of the contract to the specific contractor/processes which support those elements. Additionally, quality system requirements needed to support the elements of the contract shall be fully described.</p> <p>10.2 Contractor format is acceptable.</p> <p>10.3 The plan shall identify the means by which the contractor will ensure quality system effectiveness and demonstrate comprehensive management and review of data, such that the results may be used to indicate trends and progress in the quality of test and repair. The plan shall describe what is measured, how often it is tracked, and who reviews and assures that appropriate action is initiated when trends are unfavorable.</p> <p>10.3.1 All updates shall consist of notes or changes to the plan, clearly identified as to where applicable (i.e. system element, page/paragraph, number, etc.,).</p> <p>10.4 All calibratable systems and equipment shall be traceable to the National Institute of Science and Technology (NIST).</p>	

DATA ITEM DESCRIPTION	
1. TITLE Equipment Test Report	2. IDENTIFICATION NUMBER DI-FAA-Q002
3. DESCRIPTION/PURPOSE 3.1 The equipment test report: 1) describes the contractor's testing of his final product, before delivery to the Government;	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and preparation instructions for a Data Item.	
10. PREPARATION INSTRUCTIONS 10.1 Format and Content. Contractor format. <ol style="list-style-type: none"> 1) Normal factory assembly line test. 2) Witness testing parameters: <ol style="list-style-type: none"> a. Time: two days; b. Linear, and non-linear loads from 0 to 100% of machine rating; c. Measure UPS input harmonics; d. Test UPS overload capabilities; and e. Transfer from normal to internal static by-pass. 10.1 Delivery. Equipment test report is delivered to the FAA with each UPS unit ordered.	

DATA ITEM DESCRIPTION	
1. TITLE Contractor's Configuration Management Plan	2. IDENTIFICATION NUMBER DI-FAA-Q003
3. DESCRIPTION/PURPOSE 3.1 The Contractor's Configuration Management (CM) Plan describes the contractor's Configuration Management Program, how it is organized, how it will be conducted, and the methods, procedures and controls used to assure effective Configuration Identification, Change Control, Status Accounting, and Audits of the Total Configuration, including Hardware, Software, and Firmware. The principal use is to provide the Government a basis for Review, Evaluation, and Monitoring of the Configuration Management (CM) Program and its proposed components.	4. APPROVAL DATE August 8, 2002
	5. RESPONSIBLE OFFICE AOS-1000
	6. REFERENCE
7. APPLICATION/INTERRELATIONSHIP 7.1 This Data Item Description (DID) contains the format and preparation instructions for a Data Item resulting for Work Tasks described in MIL-HNBK-61.	
10. PREPARATION INSTRUCTIONS 10.1 Format and Content. The CCMP format and content shall be Contractor standard format.	

**PART III – SECTION J
ATTACHMENT J.5**

**COVER PAGE
FOR
CONSTRUCTION SPECIFICATION DIVISION 1 TEMPLATE**

This Document is a standard or template for the construction specification Division 1. The information contained within this template is applicable to **Engineering Design Services Task and Site Preparation Installation Task**. If design services are tasked to the contractor this document will be customized for the Region and site for incorporation into the design specifications. Other wise this template provides preliminary information as to the procedures the FAA uses during construction projects. The submittals and deliverables defined within the Division 1 template are required on all construction related work.

Document non-applicability: This document does not apply to tasks with the sole purpose of equipment installation and equipment connection. Also, this document does not apply to on-site technical assistance and equipment service calls.

DIVISION 1 SECTIONS:

01010 SUMMARY OF WORK
01030 ALTERNATIVES
01042 COORDINATION
01311 PROJECT MEETINGS
01300 SUBMITTALS
01311 SCHEDULES AND REPORTS
01380 CONSTRUCTION PHOTOGRAPHS
01400 QUALITY CONTROL
01421 REFERENCE STANDARDS AND DEFINITIONS
01510 TEMPORARY FACILITIES
01600 MATERIALS AND EQUIPMENT
01613 DELIVERY, STORAGE, AND HANDLING
01700 CONTRACT CLOSE-OUT
01710 CLEANING

SECTION 01030 -ALTERNATES

PART I - GENERAL

1.6 SUMMARY

A. This Section includes administrative and procedural requirements governing Bid Alternates. *(This section will not be used if the contract is under one bid and no alternate bid items are needed).*

1.2 DEFINITIONS

PART 2 - PRODUCTS (Not Used)

END OF SECTION 01030

SECTION 01042 – COORDINATION

PART I – GENERAL

SUMMARY

A. This Section includes administrative and supervisory requirements necessary for coordinating construction operations including, but not necessarily limited to, the following:

1. General project coordination procedures.
2. Conservation.
3. Coordination Drawings.
4. Administrative and supervisory personnel.
5. Cleaning and protection.

B. Related Sections:

1. Section 01200, "Project Meetings" for progress meetings, coordination meetings, and preinstallation conferences.
2. Section 01300, "Submittals" for preparing and submitting the Contractor's Construction Schedule.
3. Section 0 1600, "Materials and Equipment" for coordinating general installation.
4. Section 0 1700, "Contract Closeout" for coordinating contract closeout.

1.2 COORDINATION

A. Coordinate construction operations included in various Sections of these Specifications to assure efficient and orderly installation of each part of the Work. Coordinate construction operations included under different Sections that depend on each other for proper installation, connection, and operation.

- 1 Schedule construction operations in the sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.
3. Make provisions to accommodate items scheduled for later installation.

B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and attendance at meetings.

1. Prepare similar memoranda for the Contracting Officer and separate contractors where coordination of their work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of schedules.

2. Installation and removal of temporary facilities.
3. Delivery and processing of submittals.
4. Progress meetings.
5. Project closeout activities.

D. Conservation: Coordinate construction operations to assure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated in, the Work.

1.3 SUBMITTALS

A. Coordination Drawings: Prepare coordination drawings where careful coordination is needed for installation of products and materials fabricated by separate entities. Prepare coordination drawings where limited space availability necessitates maximum utilization of space for efficient installation of different components.

1. Show the relationship of components shown on separate Shop Drawings.
2. Indicate required installation sequences.
3. Comply with requirements contained in Section 01300, "Submittals."

B. Staff Names: Within 15 days of Contract award, submit a list of the Contractor's principal staff assignments, including the superintendent and other personnel in attendance at the Project Site. Identify individuals and their duties and responsibilities. List their addresses and telephone numbers.

1. Post copies of the list in the Project meeting room, the temporary field office, and each temporary telephone.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 – EXECUTION

3.1 GENERAL COORDINATION PROVISIONS

- A. Inspection of Conditions: Require the Installer of each major component to inspect both the substrate and conditions under which Work is to be performed. Do not proceed until unsatisfactory conditions have been corrected in an acceptable manner.
- B. Coordinate temporary enclosures with required inspections and tests to minimize the necessity of uncovering completed construction for that purpose.

3.2 CLEANING AND PROTECTION

- A. Clean and protect construction in progress and adjoining materials in place, during handling and installation. Apply protective covering where required to assure protection from damage or deterioration at Substantial Completion.
- B. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to assure operability without damaging effects.
- C. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period. Where applicable, such exposures include, but are not limited to, the following:
 - 1. Excessive static or dynamic loading.
 - 2. Excessive internal or external pressures.
 - 3. Excessively high or low temperatures.
 - 4. Thermal shock.
 - 5. Excessively high or low humidity.
 - 6. Air contamination or pollution.
 - 7. Water or ice.
 - 8. Solvents.
 - 9. Chemicals.
 - 10. Light.
 - 11. Radiation.
 - 12. Puncture.
 - 13. Abrasion.
 - 14. Heavy traffic.
 - 15. Soiling, staining, and corrosion.
 - 16. Bacteria.
 - 17. Rodent and insect infestation.
 - 18. Combustion.
 - 19. Electrical current.
 - 20. High-speed operation.
 - 21. Improper lubrication.
 - 22. Unusual wear or other misuse.
 - 23. Contact between incompatible materials.
 - 24. Destructive testing.
 - 25. Misalignment.
 - 26. Excessive weathering.
 - 27. Unprotected storage.
 - 28. Improper shipping or handling.
 - 29. Theft.
 - 30. Vandalism.

END OF SECTION 01042

SECTION 01200 - PROJECT MEETINGS

PART I - GENERAL

1.1 SUMMARY

- A. This Section specifies administrative and procedural requirements for project meetings, including, but not limited to, the following:
 - 1. Preconstruction conferences.
 - 3. Preinstallation conferences.
 - 3. Progress meetings.
 - 4. Coordination meetings.
- B. Related Sections:
 - 1. Section 01042 "Coordination" for procedures for coordinating project meetings with other construction activities.
 - 2. Section 01300 "Submittals" for submitting the Contractor's Construction Schedule.

1.2 PRECONSTRUCTION CONFERENCE

- A. Schedule a preconstruction conference before starting construction, at a time convenient to the Contracting Officer (COR), but no later than 15 working days after Contract Award. Hold the conference at the Project Site or another convenient location approved by the Contracting Officer's Representative (COR). Conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: Authorized representatives of the Government, Architect/Engineer, and their consultants the Contractor and its superintendent; major subcontractors; manufacturers; suppliers; and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress, including the following:
 - 1. Tentative construction schedule.
 - 2. Critical work sequencing and phasing,
 - 3. Work by others.
 - 4. Designation of responsible personnel.
 - 5. Procedures for processing field decisions and Change Orders.
 - 6. Procedures for processing Applications for Payment.
 - 7. Distribution of Contract Documents.
 - 8. Submittal of Shop Drawings, Product Data, and Samples.
 - 9. Preparation of record documents.
 - 10. Use of the premises.
 - 11. Parking availability.
 - 12. Office, work, and storage areas.
 - 13. Equipment deliveries and priorities.

14. Safety procedures.
15. First aid.
16. Security.
17. Housekeeping.
18. Working hours.

1.3 PREINSTALLATION CONFERENCES

- A. Conduct a preinstallation conference at the Project Site before each construction activity that requires coordination with other construction.
- B. Attendees: The Installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the COR of scheduled meeting dates.

1 .Review the progress of other construction activities and preparations for the particular activity under consideration at each preinstallation conference, including requirements for the following:

- a. Contract Documents.
- b. Options.
- C. Related Change Orders.
- d. Purchases.
- e. Deliveries.
- f. Shop Drawings, Product Data, and quality-control samples.
9. Review of mockups.
- h. Possible conflicts.
- i. Compatibility problems.
- j. Time schedules.
- k. Weather limitations.
1. Manufacturer's recommendations.
- In. Warranty requirements.
- n. Compatibility of materials.
0. Acceptability of substrates.
- p- Temporary facilities.
- q- Space and access limitations.
- r. Governing regulations.
- S. Safety.
- t. Inspecting and testing requirements.
- U. Required performance results.
- V. Recording requirements.
- W. Protection.

2. Record significant discussions and agreements and disagreements of each conference, and the approved schedule. Distribute the record of the meeting to everyone concerned, including the Owner and the Architect/Engineer within 5 working days of the conference.

3. Do not proceed with the installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

1.4 PROGRESS MEETINGS

- A. Conduct progress meetings at the Project Site at weekly intervals. Notify the COR of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment request.
- B. Attendees: In addition to representatives of the Government, each subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.
- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the status of the Project.
 - 1. Contractor's Construction Schedule: Review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time or ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to insure that current and subsequent activities will be completed within the Contract Time.
 - 2. Review the present and future needs of each entity present, including the following:
 - a. Interface requirements.
 - b. Time.
 - c. Sequences and phases.
 - d. Work by others.
 - e. Status of submittals.
 - f. Deliveries.
 - g. Off-site fabrication problems.
 - h. Access.
 - i. Site utilization.
 - j. Temporary facilities and services.
 - k. Hours of work.
 - l. Hazards and risks.
 - m. Housekeeping.
 - n. Quality and work standards.
 - o. Change Orders.
 - p. Documentation of information for payment requests.
- D. Reporting: No later than 5 days after each meeting, distribute minutes of the meeting to each party present and to parties who should have been present, and to the COR and Architect/Engineer. Include a brief summary, in narrative form, of progress since the previous meeting and report.
 - 1. Schedule Updating: Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

1.5 COORDINATION MEETINGS

- A. Conduct project coordination meetings at least once each month for all parties Involved. Project coordination meetings are in addition to specific meetings held for other purposes, such as regular progress meetings and special preinstallation meetings.
- B. Request representation at each meeting by every party currently involved in coordination or planning for the construction activities involved.
- C. Record meeting results and distribute copies no later than 5 working days after the meeting to everyone In attendance and to others affected by decisions or actions resulting from each meeting.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01200

SECTION 01300 - SUBMITTALS

PART I - GENERAL

SUMMARY

- A. This Section includes administrative and procedural requirements for submittals required for performance of the Work, including the following:
 - 1. Contractor's construction schedule
 - 2. Submittal schedule.
 - 3. Daily construction reports.
 - 4. Shop Drawings..
 - 5. Product Data.
 - 6. Samples.
 - 7. Quality assurance submittals.
 - 8. Operation and Maintenance Manuals

- B. Administrative Submittals: Refer to other Sections of the Contract Documents for requirements for administrative submittals. Such submittals include, but are not limited to, the following:
 - 1. Permits.
 - 2. Applications for Payment.
 - 3. Performance and payment bonds.
 - 4. Insurance certificates.
 - 5. List of subcontractors.

1.2 DEFINITIONS

- A. Coordination Drawings show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or to function as intended.

- B. Field samples are full-size physical examples erected on-site to illustrate finishes, coatings, or finish materials. Field samples are used to establish the standard by which the Work will be judged.

- C. Mockups are full-size assemblies for review of construction, coordination, testing, or operation; they are not Samples.

- D. COR: Contracting Officer's Representative.

- E. RE: Resident Engineer.

- F. Critical Path Method (CPM): A method of planning and scheduling a construction project where activities are arranged based on activity relationships along the critical path of the project. (See G below.)

- G. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall project duration.

- H. Network Logic Diagram: A graphic diagram of a network schedule, showing the activities and activity relationships.
- I. Activity: A discrete part of a project which can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
 - 1. Critical activities are on the critical path.
 - 2. Predecessor activity is an activity that must be completed before a given activity can begin.
- J. Event: The starting or ending point of an activity.
- K. Milestone: A key or critical point in time for reference or measurement.
- L. Float: The measure of leeway (time) in activity performance. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned project completion date.

1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The COR reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 3. Processing: To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for resubmittals.
 - a. Allow 30 calendar days for initial review. Allow additional time if the COR must delay processing to permit coordination with subsequent submittals.
 - b. If an intermediate submittal is necessary, process the same as the initial submittal.
 - c. Allow 30 calendar days for reprocessing each submittal.
 - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the COR sufficiently in advance of the Work to permit processing.

- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
1. Provide a space approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 2. Include the following information on the label for processing and recording action taken.
 - a. Submittal number.
 - b. Project name.
 - c. Date.
 - d. Name and address of the Architect.
 - e. Name and address of the Contractor.
 - f. Name and address of the subcontractor.
 - g. Name and address of the supplier.
 - h. Name of the manufacturer.
 - i. Number and title of appropriate Specification Section.
 - j. Drawing number and detail references, as appropriate.
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal from the Contractor to the COR using a transmittal form. The COR will not accept submittals received from sources other than the Contractor.
1. On the transmittal, record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
 2. Transmittal form: Use form finished by COR.
- 1.4 CONSTRUCTION SCHEDULE, CONTRACTOR PREPARED NETWORK ANALYSIS SYSTEM (NAS)
- A. Construction schedule: Prepare progress chart in accordance with Contract clause entitled " SCHEDULE FOR CONSTRUCTION CONTRACTS," consisting of a network analysis system (NAS) as described below. Scheduling of construction is the responsibility of the Contractor. Contractor's management personnel shall actively participate in development of the network logic diagram so that intended sequences and procedures are clearly understood. The Contractor shall provide the NAS in Precedence (PDM) format.
 - B. Network Analysis System: The system shall consist of diagrams and accompanying mathematical analyses. The network diagram shall depict the order and interdependence of activities and the method by which the work is to be accomplished. Conditions of submittal are:

1. The diagram shall show a continuous activity flow from left to right. The diagram shall show the order and the interdependence of activities and the sequence in which the work shall be accomplished as planned by the Contractor.
 2. The activity or event numbers, description, duration, and dollar value shall be shown on the diagram.
 3. Dates shall be shown on the diagram for start of the project, milestones required by the contract, and contract completion.
 4. The critical path shall be clearly identified.
 5. Network activities shown on a detailed or subnetwork diagram shall include, in addition to construction activities, submittal and review of shop drawings and samples and procurement, fabrication, delivery, installation, start-up, and testing of special or long lead-time materials and equipment. Special or long lead-time refers to items manufactured for the conformance of this project that is not readily available as a stock manufactured item for delivery within one week of approval.
 6. Activities involving the procurement, delivery and installation of items of equipment shall be separated into a procurement and delivery activity and into an installation activity. Values for material and labor shall be in separate activities.
 7. The activities related to separate buildings and feature shall be separately identifiable by coding by area or use of subnetworks or both.
 8. Government and other agency activities that affect progress shall be shown. These include but are not limited to: Notice-to-Proceed, approvals, inspections, utility tie in for phasing requirements, system cutovers, and equipment and personnel reallocations. These activities shall be coded by responsibility.
 9. Contractor provided training for Government personnel on equipment and systems with training requirements shall be shown on the NAS.
- C. Tracking/Activity Numbers and Duration: Provide a network with a minimum of 150 construction installation activities unless otherwise approved by the COR. This quantity is for the Base Bid only. The selection and number of activities shall be subject to COR approval. In calculating activity duration, normal inclement weather, holidays and other non-working days shall be considered. Activities which are planned to be performed by use of overtime or multi-shifts to be worked including Saturdays, Sundays, and holidays, shall be identified and must be coordinated in accordance with the requirements of Division 1.
- D. NAS Submittal Requirements: The NAS shall be submitted within 21 calendar days after Contract Award or within 7 calendar days of Notice-to-Proceed, whichever occurs first. NAS shall provide a reasonable sequence of activities which represent work for the duration of the project, and a reasonable level of detail for each activity. Duration time of each activity shall not be greater than 14 calendar days. Activity durations greater than 14 calendar days will only be permitted for activities not logically capable of further subdivision such as the submittal process, and fabrication of equipment or material for delivery. The schedule interval shall extend from Notice-to-Proceed through the Contract duration specified in "COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK" to contract completion date. Completion of the last activity in the schedule shall be constrained by the contract completion date such that if the projected finish of the last activity falls after the contract completion, then the float calculation shall reflect negative float. Interim milestone dates specified shall be similarly constrained. No Work shall commence until the NAS is approved by the COR.

Government review of schedule submittal(s) will not exceed 30 calendar days. Review of each resubmittal, if necessary, shall not exceed 30 calendar days.

- E. Submittals: For reports, monthly submittal is required. For the Two-Week " Look Ahead" schedule only, weekly submittal is required. The Contractor shall submit a reproducible and two copies of the network diagram at the initial submittal; three copies of the specified reports at the initial project meeting; and for the duration of the project, shall update the schedule monthly. Monthly updates shall include computer disks and three copies of both the network diagram and reports. The format of the reports shall contain:
- 1 . Activity Number(s),
 2. Activity description,
 3. Original Duration,
 4. Remaining Duration,
 5. Early Start (ES) date,
 6. Late Start (LS) date,
 7. Early Finish (EF) date,
 8. Late Finish (LF) date,
- and
9. Total Float (TF).
- F. Report formats shall be as follows:
1. Activity Report: This report shall list all activities sorted according to activity number. Activities shall be printed in ascending order of activity number. Standard report which lists all activities including restraints in this manner is acceptable.
 2. Criticality Report: This report shall list all activities sorted in ascending order of total float. Activities which have equal values of total float shall be listed in ascending order of Early Starts.
 3. Cost or Earned Value Report: This report shall compile contractor's total earned value on the project from the Notice-to-Proceed until the most recent monthly progress meeting based on agreed progress between the Contractor and the Contracting Officer. In the event the Contractor has submitted a complete schedule update, this report shall serve as the basis for determining Contractor payment. No payment shall be considered due without a complete and accurate schedule update. Activities shall be grouped by bid item and then sorted by responsibility or discipline and activity number(s). This report shall subtotal activities in a bid item and provide a bid item percent, complete and then total bid items to provide a total project percent complete.
 4. Precedence Report: This report shall list preceding and succeeding activities for each activity.
- G. Two-Week " Look Ahead" Schedule- This schedule may be of the Contractor's choosing, either bar chart or CPM form. Only activities scheduled to be occurring during the forecasting two-week time periods shall be shown. Schedules shall be submitted weekly, just prior to the weekly construction site meetings. The two-week time periods are determined by starting day being the day of the weekly construction site meeting. Early and Late Start and Finish dates, and list of subcontractors involved shall be included in the schedule.

- H. Progress Meeting: A monthly meeting shall be conducted on site to be attended by the Contractor's project manager and appropriate Contracting Officer's representative. During this meeting the Contractor will describe, on an activity by activity basis, all proposed revisions and adjustments to the NAS required to reflect the current status of the project Activity progress, proposed revisions and adjustments, and the use of any optional calculations are subject to the RE's review and COR approval. The following shall be addressed:
1. The actual start and actual finish dates for activities in progress or completed as appropriate,
 2. The estimated remaining duration for each activity in progress. Progress calculations must be based on remaining duration for each activity and be in an approved calculation mode.
 3. The earned value for each activity started but not completed. Payment shall be based on cost of completed activities plus cost to date of in-progress activities.
 4. Logic changes pertaining to change orders on which a Notice-to- Proceed has been issued, Contractor proposed changes in activity sequence or duration, and corrections to schedule logic to avoid out of sequence progress. These durations shall be in the form of a narrative report supplemented by subnet(s) and calculations that would be necessary for approval of the revisions.
 5. Contracting Officer approval (or denial) of proposed revisions will occur within 14 calendar days of submittal and shall be incorporated into the NAS by the next update.
- I. NAS Update Requirements: A complete update of the NAS based on the approved progress, revisions, and adjustments agreed upon at the monthly progress meeting shall be computed and submitted not later than 5 working days after each meeting. This update shall be subject to approval by the COR, with review and recommendation by the RE, of the accurate entry of information agreed upon at the weekly progress meeting. Actual starts and finishes, remaining duration, or present complete shall not be automatically updated by default dates contained in many CPM Scheduling software systems, except that ES for an activity which could start prior to the update but has no actual start shall default to the data of the update.
- J. Activities which have posted progress without predecessor activities being completed shall be allowed only on a case-by-case approval of the COR who may require logic changes to correct out of sequence progress.
- K. Narrative Report: A narrative report shall be provided with each update of the NAS. This report shall include a description of activities and progress along any path in which 14 or less calendar days of float exists, a description of current and anticipate problem areas or delaying factors and their impact, and an explanation of the corrective actions taken. Only modifications that have been authorized and approved by the COR shall be included in the schedule submission. The narrative report shall specifically reference, on an activity by activity basis, changes made since the previous report with specific reason for the change and relate each change to above shall provide the basis for the Contractor's progress payment request and 'the Contractor shall be entitled to progress payments determined from the currently approved NAS update. If the Contractor fails or refuses to furnish the information and NAS data which, in the sole judgment of the COR, is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided a progress payment estimate and progress payment will not be made.

- L. NAS Revisions for Proposed Contract Changes: The Contractor shall prepare proposed NAS revisions for proposed contract changes and submit them to the Resident Engineer along with the cost proposal. These shall include a narrative listing the affected activities, a statement of the expected overall impact of the change proposed, and a sub-network of the affected diagram area. When agreed upon by the COR, the change logic and duration shall be utilized in analysis of the overall project and the appropriate impact of the change determined for inclusion of time impact for a modification. When notice to proceed with changes must be issued prior to settlement of price and/or time, the contractor shall submit the same revisions for review by the R.E. and concurrence by the COR prior to inclusion in the NAS. The Contractor shall submit or include such revisions within 21 calendar days of the Notice-to-Proceed. COR's response or approval will occur with 14 calendar days of receipt. Request for equitable adjustment for time and costs will be negotiated in accordance with the

CHANGES clause, FAR 52.243-4 and with other applicable clauses or specifications within this contract.

- M. Time Extension: Proposed NAS revisions and use of revised logic or duration time estimates for updating or analysis of proposed changes, whether furnished by the Contractor or by the Contracting Officer, shall not be construed as extensions of time to the dates required in the Contract.
- N. Contract Completion Date Extension: In the event the Contractor requests an extension of the Contract completion date for other contractual reason, he shall furnish such justification as the Contracting Officer may deem necessary for a determination of the Contractor's right to an extension of time under the provisions of the Contract. In such event the schedule revisions must clearly display that the Contractor has used in full the available float time for the work involved with the request. Actual delays that are found to be caused by the Contractor's own actions or lack of action, and which result in the extension of the projected contract completion date shall not be a cause for extension of the Contract completion date. The COR may find cause to extend the contract completion date under the Contract in the absence of a request by the Contractor when, in the COR's judgment, it is equitable.
- O. Float Time: Float available in the schedule at any time shall not be considered as for exclusive use by either the Contractor or the Government. Extensions of time for performance of work required under Contract, Clauses entitled, "CHANGES," "DIFFERING SITE CONDITIONS," "DEFAULT (FIXED PRICE CONSTRUCTION)," or "SUSPENSION OF WORK" will be granted only to the extent that equitable time adjustments for affected activities exceed the total float along their paths.
- P. Data Exchange: The automated scheduling system utilized by the Contractor shall be capable of complying with specified requirements. The Contractor shall provide the Government, within 14 calendar days after Notice-to-Proceed, with the means to independently obtain and process information from the network analysis data.
- Q. Capability: This capability shall be accomplished by one of the following alternatives:

1. Software Provision: Contractor may elect to provide two original copies of the NAS software (including manual and other documentation) that will be used by the Contractor and that will be fully compatible with the Resident Engineer Office's computer hardware and that will process the network data provided by the Contractor with no further computer translation. The Contractor shall initially install one copy of the software on one Resident Office microcomputer and shall maintain the software throughout the contract period.

- a. Existing Resident Engineer office hardware is IBM compatible microcomputer with 4 megabyte RAM, 80 megabyte hard drive, five and one-quarter inch floppy drives and color VGA monitor.

2. Hardware and Software Provision: Contractor may elect to provide two copies of the Contractor* s choice of computer hardware, each with fully operational legal NAS software installed. Contractor shall provide all applicable manuals and documentation and shall maintain the hardware and software throughout the contract period.

R. Updated Software: The Contractor shall provide of the software updates that are incorporated into the Contractor's program. The Contractor shall also provide adequate training to the Resident Engineer on the use of the furnished software. The software shall be in the possession of and for the exclusive use by the Government during the contract period. The Contractor may repossess the software after final payment is made on the contract.

S. Scheduled Updates: The Contractor shall additionally provide monthly progress information including revised logic, actual activity start dates, actual activity finish dates, and revised activity duration on two copies of 3-1/2" floppy disk or other compatible electronic media. This information, either without further computer translation or with Contractor-provided computer translation, shall be capable of being processed with the hardware and software being used in the Resident Engineer's office for network analysis system processing.

1.5 SUBMITTAL SCHEDULE

A. After development and acceptance of the Contractor's Construction Schedule, prepare a complete schedule of submittals. Submit the schedule within 10 calendar days of the date required for submittal of the Contractor's Construction Schedule.

1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values, and the list of products as well as the Contractor's Construction Schedule.

2. Prepare the schedule in chronological order. Provide the following information:

- a. Scheduled date for the first submittal.
- b. Related Section number.
- c. Submittal category (Shop Drawings, Product Data, or Samples).
- d. Name of the subcontractor.
- e. Description of the part of the Work covered.
- f. Scheduled date for resubmittal.

g. Scheduled date for the COR's final release or approval.

B. Distribution: Following response to the initial submittal, print and distribute copies to the COR, Government, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office.

1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.

C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.6 DAILY CONSTRUCTION REPORTS

A. Prepare a daily construction report recording the following information concerning events at the site, and submit duplicate copies to the COR at weekly intervals:

1. List of subcontractors at the site.
2. Count of personnel at the site by Contractor and Trades.
3. High and low temperatures, general weather conditions.
4. Accidents and unusual events.
5. Meetings and significant decisions.
6. Stoppages, delays, shortages, and losses.
7. Meter readings and similar recordings.
8. Emergency procedures.
9. Orders and requests of governing authorities.
10. Change Orders received, implemented.
11. Services connected, disconnected.
12. Equipment or system tests and startups.
13. Partial Completions, occupancies.
14. Substantial Completions authorized.
15. Activities (by number and description) worked on with brief description of daily progress.

1.7 SHOP DRAWINGS

A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

B. Shop Drawings include fabrication and installation Drawings, setting diagrams, schedules, patterns, templates and similar Drawings. Include the following information:

1. Dimensions.
2. Identification of products and materials included by sheet and detail number.
3. Compliance with specified standards.
4. Notation of coordination requirements.

5. Notation of dimensions established by field measurement.
6. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 36 by 48 inches.
7. Initial Submittal: Submit one correctable, translucent, reproducible print and six blue- or black-line prints for the COR's review. The COR will return the reproducible print and two non-reproducible prints.
8. Final Submittal: If final submittal is required, submit one correctable, translucent, reproducible print and 6 blue- or black-line prints and 2 additional prints where required for maintenance manuals, plus the number of prints needed by the COR for distribution.
 - a. One of the prints returned shall be marked up and maintained as a "Record Document".
9. Do not use Shop Drawings without an appropriate final stamp indicating action taken.

1.8 PRODUCT DATA

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
 1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
 2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
 3. Preliminary Submittal: Submit a preliminary single reproducible copy of Product Data where selection of options is required.
 4. Submittals: Submit 6 copies of each required submittal; submit 8 copies where required for maintenance manuals. The COR will retain two, and will return the others marked with action taken and corrections or modifications required.
 - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
 5. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.

- a. Do not proceed with installation until a copy of Product Data is in the Installer's possession.
- b. Do not permit use of unmarked copies of Product Data in connection with construction.

1.9 SAMPLES

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture, and pattern.

1. Mount or display Samples in the manner to facilitate review of qualities indicated. Prepare Samples to match the COR's sample. Include the following:

- a. Specification Section number and reference.
- b. Generic description of the Sample.
- c. Sample source.
- d. Product name or name of the manufacturer.
- e. Compliance with recognized standards.
- f. Availability and delivery time.

2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

- a. Where variation in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least 3 multiple units that show approximate limits of the variations.
- b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
- c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
- d. Samples not incorporated into the Work, or otherwise designated as the Government's property, are the property of the Contractor and shall be removed from the site after acceptance of that work, and prior to Substantial Completion.

3. Preliminary Submittals: Submit a full set of choices where Samples are submitted for selection of color, pattern, texture, or similar characteristics from a range of standard choices.

- a. The COR will review and return preliminary submittals with the COR's notation, indicating selection and other action.

4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation, and similar characteristics, submit 3 sets. The COR will return one set marked with the action taken.

5. Maintain sets of Samples, as returned, at the Project Site, for quality comparisons throughout the course of construction.

- a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
- b. Sample sets may be used to obtain final acceptance of the construction associated with each set.

B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.

1. Field samples are full-size examples erected on-site to illustrate finishes, coatings, or finish materials and to establish the Project standard.

- a. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

1.10 QUALITY ASSURANCE SUBMITTALS

A. Submit quality-control submittals, including design data, certifications, manufacturer's instructions, manufacturer's field reports, and other quality-control submittals as required under other Sections of the Specifications.

B. Certifications: Where other Sections of the Specifications require certification that a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

1. Signature: Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the company.

C. Inspection and Test Reports: Requirements for submittal of inspection and test reports from independent testing agencies are specified in individual sections of these Specifications and each written report shall include the following:

1. Date issued
2. Project title and number
3. Testing laboratory name, address, and telephone number
4. Name and signature of laboratory inspector
5. Data and time of sampling or inspection
6. Record of temperature and weather conditions
7. Date of test
8. Identification of product and specifications
9. Location of sample or test in the project
10. Type of inspection or test
11. Results of tests and compliance with Contract Documents
12. Interpretation of test results, when requested by COR

1.11 OPERATIONS/MAINTENANCE (O&M) INSTRUCTIONS AND PARTS LIST

- A. Prepare operations and maintenance data as specified in this Section and as referenced in other pertinent sections of the Specifications for products furnished under this Contract. Submit, to the COR, Manufacturer's Literature, Technical Data, Operating and Maintenance Instructions, Service Manuals and Parts List as follows:

1. Submit five (5) copies of O&M manuals bound in three-ring binders, containing copies of manufacturer's literature, technical data, operating and maintenance instructions, service manuals and parts lists applicable to each item of equipment furnished. Prove a Table of Contents and an Index with a cross-reference feature which will enable maintenance personnel to locate specific equipment data sheets by knowing the name of the equipment item or the manufacturers of the equipment.
2. Organize and assemble data alphabetically according to the respective manufacturer or vendor who furnished the equipment. Index tabs shall be provided to facilitate locating any given manufacturer's section. Each section shall be separated from the others by plain blue tab separators. Locate manufacturer's index (printed on blue paper) immediately following each blue separator and preceding the manufacturer's instruction books and data.
3. List equipment items arranged alphanumerically by the item nomenclature/tag number, in a Table of Contents (TOC) in the first volume. The TOC shall contain item identification information such as part, model, or catalog number which identifies the system or service in which the item is used. Data pertaining to a given item of equipment shall be located in one of two ways, depending on whether or not the name of the manufacturer is known.

- B. Description of Unit and Component Parts:

1. Clearly identify specific product and data applicable to installation
2. Function, normal operating characteristics, and limiting conditions
3. Performance curves, engineering data, and tests
4. Complete nomenclature and commercial number of replacement parts.

- C. Operations:

1. Manufacturer's printed operating instructions
2. Description of sequence of operation by control manufacturer
3. Start-up, break-in, routine, and normal operating instructions
4. regulations, control stopping, shutdown, and emergency instructions
5. Summer and winter operating instructions
6. Special operating instructions.

- D. Maintenance

1. Manufacturer's maintenance instructions
2. Routine operations
3. Guide to trouble-shooting
4. Disassembly, repair, and reassembly

5. Alignment, adjusting, and checking
6. Servicing and lubricating schedule with list of lubricants required
7. List of original manufacturer's spare parts.

E. Additional Information

1. As-installed control diagrams by control manufacturer
 2. Charts of valve tag numbers, with location and function of each valve.
 3. Drawing illustrating the relationship of equipment and systems
 4. Control and flow diagrams
 5. As-installed color coded piping diagrams
 6. Data required under pertinent sections of specifications
- F. Prior to final inspection of acceptance, review contents of O&M manual with the Government's designated operating and maintenance personnel, instructing them in operation, adjustments and maintenance of products, equipment, and systems. Maintain equipment and pay all costs of operation, demonstration, tests, and instruction until acceptance by the Government.

1.12 COR'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the COR will review each submittal, mark to indicate action taken, and return promptly.

1. Compliance with specified characteristics is the Contractor's responsibility.

- B. Action Stamp: The COR will stamp each submittal with a uniform, action stamp. The COR will mark the stamp appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: When the COR marks a submittal "Approved," the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

2. Final-But-Restricted Release: When the COR marks a submittal "Approved as Noted," the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.

3. Returned for Resubmittal: When the COR marks a submittal "Not Approved, Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat if necessary to obtain different action mark.

a. Do not use, or allow others to use, submittals marked "Not Approved, Revise and Resubmit" at the Project Site or elsewhere where Work is in progress.

4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, the COR will return the submittal marked "Action Not Required."

C. Unsolicited Submittals: The COR may return unsolicited submittals to the sender without action,

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 SUBMITTAL SCHEDULE

A. Schedule of Submittals: Submittals (Schedules, Manufacturer's Literature, Shop Drawings, Samples, Test Reports, Certificates, Design Calculations, and Installation Instructions) are required for the items listed in the specifications or on the drawings. Submittals for additional items not shown on this list, but identified in the specifications or on the drawings, are also required.

B. Submittal Schedule: Asterisk (*) indicates critical items that must be submitted prior to the start of the work.

Division 2 *(List all sections with submittals required under that section)*

Division 3 *(List all sections with submittals required under that section)*

Division 4 *(List all sections with submittals required under that section)*

Division 5 *(List all sections with submittals required under that section)*

Division 6 *(List all sections with submittals required under that section)*

Division 7 *(List all sections with submittals required under that section)*

Division 8 *(List all sections with submittals required under that section)*

Division 9 *(List all sections with submittals required under that section)*

Division 10 *(List all sections with submittals required under that section)*

Division 11 *(List all sections with submittals required under that section)*

Division 12 *(List all sections with submittals required under that section)*

Division 13 *(List all sections with submittals required under that section)*

Division 14 *(List all sections with submittals required under that section)*

Division 15 *(List all sections with submittals required under that section)*

Division 16 *(List all sections with submittals required under that section)*

Division 17 *(List all sections with submittals required under that section)*

(Project name)
(FAA-XXX-*Spec No.*)

(Month Year)

SECTION 01311 - SCHEDULES AND REPORTS

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for schedules and reports required for proper performance of the Work-, including:

1. Preliminary construction schedule.
2. Contractor's construction schedule.
3. Submittal schedule.
4. Schedule of inspections and tests.
5. Unit-price schedule.
6. Daily construction reports.
7. Material location reports.
8. Field correction reports.
9. Special reports.

- B. Related Sections:

1. Section 0 13 15, " CPM Schedules" specifies requirements for submittal of the CPM schedule.
2. Section 01200, "Project Meetings" specifies requirements for submittal and distribution of meeting and conference minutes.
3. Section 01400, "Quality Control" specifies requirements for submittal of inspection and test reports.
4. Section 0 1600, "Materials and Equipment" specifies requirements for submittal of the list of products.

1.2 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of schedules and reports with performance of other construction activities.
- B. Coordination: Each prime contractor shall closely coordinate scheduling and reporting with scheduling and reporting of other prime contractors.

1.3 SUBMITTAL SCHEDULE

- A. Submit a complete schedule of submittals within 10 working days of Contract award.

1. Coordinate Submittal Schedule with the list of subcontracts, Schedule of Values and the list of products as well as the Contractor's Construction Schedule.

- B. Prepare the schedule in chronological order. Provide the following information:

1. Scheduled date for the first submittal.
2. Related Section number.
- 3 Submittal category.
4. Name of the subcontractor.
5. Description of the part of the Work covered,

6. Scheduled date for resubmittal.
 7. Scheduled date for the Contracting Officer's Representative's (COR's) final release or approval.
- C. Distribution: Following the Architect's response to the initial submittal, print and distribute copies to the COR, subcontractors, and other parties required to comply with submittal dates indicated.
1. Post copies in the Project meeting room and temporary field office.
 2. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned part of the Work and are no longer involved in construction activities.
- D. Schedule Updating: Revise the schedule after each meeting or other activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.4 SCHEDULE OF INSPECTIONS AND TESTS

- A. Prepare a schedule of inspections, tests, and similar services required by the Contract Documents. Submit within 30 days of the date established for commencement of the Work.
- B. Form: The schedule shall be in tabular form and shall include, but not be limited to, the following:
1. Specification Section number.
 2. Description of the test.
 3. Identification of applicable standards.
 4. Identification of test methods.
 5. Number of tests required.
 6. Time schedule or time span for tests.
 7. Entity responsible for performing tests.
 8. Requirements for taking samples.
 9. Unique characteristics of each service.
- C. Distribution: Distribute the schedule to the COR, and each party involved in performance of portions of the Work where inspections and tests are required.

1.5 REPORTS

- A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at the site. Submit to the COR at weekly intervals:
1. List of subcontractors at the site.
 2. List of separate contractors at the site.
 3. Approximate count of personnel at the site.
 4. High and low temperatures, general weather conditions.
 5. Accidents.
 6. Meetings and significant decisions.
 7. Unusual events (refer to special reports),

8. Stoppages, delays, shortages, and losses.
 9. Meter readings and similar recordings.
 10. Emergency procedures.
 11. Orders and requests of governing authorities.
 12. Change Orders received, implemented.
 13. Services connected, disconnected.
 14. Equipment or system tests and startups.
 15. Partial Completions, occupancies.
 16. Substantial Completions authorized.
- B. Material Location Reports: At weekly intervals, prepare a comprehensive list of materials delivered to and stored at the site. The list shall be cumulative, showing materials previously reported plus items recently delivered. Include with the list a statement of progress on and delivery dates for materials or items of equipment fabricated or stored away from the site. Submit the list to the COR at weekly intervals.
- C. Field Correction Reports: When the need to take corrective action that requires a departure from the Contract Documents arises, prepare a detailed report. Include a statement describing the problem and recommended changes. Indicate reasons the Contract Documents cannot be followed. Submit a copy to the COR immediately.

1.6 SPECIAL REPORTS

- A. General: Submit special reports directly to the COR within one day of an occurrence. Submit a copy to the Architect and other parties affected by the occurrence.
- B. Reporting Unusual Events: When an event of an unusual and significant nature occurs at the site, prepare and submit a special report. List the chain of events, persons participating, response by the Contractor's personnel, an evaluation of the results or effects and similar pertinent information. Advise the COR in advance when such events are known or predictable.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01311

SECTION 01315 - CPM SCHEDULES

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for the critical path method (CPM) of scheduling and reporting progress of the Work.

1. Refer to the General Conditions and the Contract for definitions and specific dates of Contract Time,

- B. Related Sections:

1. Section 01300, "Submittals" specifies requirements for submitting the Submittal Schedule.
2. Section 01200, "Project Meetings" specifies requirements for submitting and distributing meeting and conference minutes.
3. Section 01400, "Quality Control" specifies requirements for submitting inspection and test reports.
4. Section 01600, "Materials and Equipment" specifies requirements for submitting the list of products.

1.2 DEFINITIONS

- A. Critical Path Method (CPM): A method of planning and scheduling a construction project where activities are arranged based on activity relationships and network calculations determine when activities can be performed and the critical path of the Project.
- B. Critical Path: The longest continuous chain of activities through the network schedule that establishes the minimum overall project duration.
- C. Network Diagram: A graphic diagram of a network schedule, showing the activities and activity relationships.
- D. Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.
1. Critical activities are activities on the critical path.
 2. Predecessor activity is an activity that must be completed before a given activity can be started.
- E. Event: An event is the starting or ending point of an activity.
- F. Milestone: A key or critical point in time for reference or measurement.
- G. Float is the measure of leeway in activity performance. Accumulative float time belongs to the Owner.
1. Free float is amount of time an activity can be delayed without adversely affecting the early start of the following activity.

2. Total float is the measure of leeway in starting or completing an activity without adversely affecting the planned project completion date.

1.3 QUALITY ASSURANCE

A. The Contractor's Consultant: Retain a consultant to provide planning, evaluating, and reporting by CPM scheduling.

B. The Contractor's Consultant: The Contractor for General Construction shall retain a consultant to provide planning, evaluating, and reporting by CPM scheduling.

1. The Consultant shall be a recognized specialist, acceptable to the Government, who is an expert in CPM scheduling and reporting.

2. The Consultant shall have computer facilities that are capable of delivering detailed network diagrams within 48 hours of request.

3. In-house Option: The Government may waive the requirement to retain a consultant if the Contractor can demonstrate that:

a. The Contractor has the computer equipment required to produce CPM network diagrams.

b. The Contractor employs skilled personnel with experience in CPM scheduling and reporting techniques.

4. Program: Use a computer software program for network analysis that has been developed specifically to manage CPM construction schedules and is acceptable to the Government.

5. Standards: Comply with procedures contained in Associated General Contractor's (AGC) "Construction Planning & Scheduling".

1.4 PRELIMINARY NETWORK DIAGRAM

A. Preliminary Network Diagram: Submit a preliminary network diagram within 14 days of the date established for "Commencement of the Work." The preliminary network diagram shall outline activities for the first 60 days of construction. Include a skeleton diagram for the remainder of the Work, including phases and other work, with the preliminary diagram.

1. Include each significant construction activity in all phases. Coordinate each activity in the network with other activities. Schedule each construction activity in proper sequence and phase.

2. Indicate completion of the Work on the date established for Substantial Completion, unless the Government agrees otherwise.

B. Cash Requirement Prediction: With submittal of the preliminary network diagram, include a preliminary cash requirement prediction based on indicated activities.

C. Tabulation of Submittals: With submittal of the preliminary network diagram, include a tabulation by date of submittals required during the first 90 days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead-time for manufacture or fabrication.

D. Distribution: Distribute the preliminary network diagram to parties involved in construction activities that are scheduled early, including the Contracting Officer's Representative (COR).

1.5 CPM SCHEDULE

- A. Prepare the Contractor's Construction Schedule using the network analysis diagram system known as the critical path method (CPM). Follow procedures outlined in AGC's "Construction Planning & Scheduling."
1. Proceed with preparation of the network diagram immediately following notification of Contract award.
 2. Follow the steps necessary to complete development of the network diagram in sufficient time to submit the final, accepted CPM Schedule so it can be accepted for use no later than 60 days after commencement of the Work.
 3. Conduct educational workshops to train and inform key project personnel, including subcontractors' personnel, in proper methods of providing data and using CPM schedule information.
 4. Establish procedures for monitoring and updating the CPM Schedule and for reporting progress. Coordinate procedures with progress meeting and payment request dates. Use "one working day" as the unit of time.
- B. CPM Schedule Preparation: Prepare a list of all activities involved in the Project by phase. Include a list of activities by phase required to complete the Work. Provide the best data available for generation of the network diagram and the CPM Schedule.
1. Indicate the estimated time duration, sequence and phase requirements, and relationship of each activity in relation to other activities.
 2. Indicate estimated times for the following activities to be performed:
 - a. Preparation and processing of submittals.
 - b. Purchase of materials.
 - c. Delivery.
 - d. Fabrication.
 - e. Installation.
 3. Treat each story or separate area as a separate numbered activity for principal elements of the Work.
 4. Using the preliminary network diagram, prepare a skeleton network to identify probable critical paths.
- C. Processing: Enter prepared data on the processing system. Process data to produce output data or a computer-drawn, time-scaled network. Revise data, reorganize activity sequences, and reproduce as often as necessary to produce the CPM Schedule within the limitations of Contract Time.
- D. Format: Display the full network on a single sheet of stable transparency, or other reproducible media, of sufficient width to show data clearly, by phase, for the entire construction period.
1. Mark the critical path. Locate the critical path near the center of the network; locate paths with the most float near the edges.
 2. Subnetworks on separate sheets are permissible for activities clearly off the critical path.
- E. Initial Issue: Prepare the initial issue of the CPM Schedule network diagram from a listing of straight "early start-total float" sort. Identify critical activities. Prepare tabulated reports to show the following:

1. The Contractor or subcontractor and Work or activity.
2. Description of the activity.
3. Principal events of that activity.
4. Immediate preceding and succeeding activities.
5. Early and late start dates.
6. Early and late finish dates.
7. Activity duration in working days.
8. Total float or slack time.
9. Average size of workforce.
10. Dollar value of activity (coordinated with the Schedule of Values).

F. Value Summaries: Prepare 2 cumulative value listings, sorted by finish dates.

1. In first listing, tabulate the following:

- a. Activity number.
- b. Early finish date.
- c. Dollar value.
- d. Cumulate dollar value.

2. In second listing, tabulated the following:

- a. Activity number.
- b. Late finish date.
- c. Dollar value.
- d. Cumulate value.

3. In subsequent issues of both listings, substitute actual finish dates for activities completed as of listing date.

G. Prepare listing for ease of comparison with payment requests; coordinate timing with progress meetings.

1. In both value summary listings, tabulate "actual percent complete," and "cumulative value completed" with total at bottom.
2. Submit value summary printouts following each regularly scheduled progress meeting.

1.6 SUBMITTALS

A. Submittal and Distribution: Submit 5 copies of the initial issue of the tabulations and network for acceptance. When schedule is approved, and when so authorized by the COR, distribute copies to the Architect/Engineer, separate contractors, subcontractors and suppliers or fabricators, and others identified by the Contractor with a need-to-know schedule responsibility.

1. Post copies in the Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.
3. Submit copies of each computer-produced report to the COR.

- B. Schedule Updating: Revise the schedule immediately after each meeting or other activity, where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each project meeting.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION 01315

SECTION 01380 - CONSTRUCTION PHOTOGRAPHS

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for construction photographs.
- B. Related Section:
 - 1. Section 01300, "Submittals" specifies general requirements for submitting construction photographs.

1.2 SUBMITTALS

- A. Prints: Submit 5 prints of each view directly to the Contracting Officer's Representative (COR) within 7 days of taking photographs. The Contractor shall retain the print in the field office at the Project Site. The print shall be available at all times for reference.
- B. Extra Prints: When requested by the COR, the photographer shall prepare extra prints of photographs. The photographer shall distribute these prints directly to designated parties.
- C. Negatives: With each submittal, include photographic negatives, in protective envelopes, identified by date photographs were taken. The negatives shall be ready for transmittal to the Government and for the Government's unrestricted use.

1.3 QUALITY ASSURANCE

- A. Engage a qualified commercial photographer to take photographs during construction.
- B. Photographer's Qualifications: Photographer shall be an individual of established reputation who has been regularly engaged as a professional photographer for not less than 3 years.

PART 2 - PRODUCTS

2.1 PHOTOGRAPHIC COPIES

- A. Prints: Provide 8-by-10-inch (200-by-250-mm) smooth surface matte, black-and-white prints on single-weight commercial-grade stock, mounted on muslin. Allow a 1-inch (25-mm) wide margin punched for standard 3-ring binder. Place margin on the left edge for vertical shots and at the top for horizontal shots.
- B. Identification: Label each photograph on the front in the bottom margin with project name and date the photograph was taken. On the back of each print provide an applied label or rubber-stamped impression with the following information:
 - 1. Name of the Project.
 - 2. Name and address of the photographer.
 - 3. Name of the Architect/Engineer.
 - 4. Name of the Contractor.
 - 5. Date the photograph was taken.

6. Vantage Point: Description of vantage point, in terms of location, direction (by compass point), and elevation or story of construction.
7. Vantage Point: Provide notation of vantage point marked for location and direction of shot on a key plan of the site and building. Indicate elevation (story height).

PART 3 - EXECUTION

3.1 PRECONSTRUCTION PHOTOGRAPHS

- A. Before starting construction, take photographs of the site and surrounding properties from different points of view, as selected by the COR.
 1. Take photographs in sufficient number to show existing conditions adjacent to the property before starting Work.
 2. Take photographs of existing buildings either on or adjoining the property in sufficient detail to record accurately the physical conditions at the start of construction.

3.2 PHOTOGRAPHIC REQUIREMENTS

- A. Associated Services: Cooperate with the photographer's work. Provide auxiliary services as requested, including access to the Project Site and use of temporary facilities including temporary lighting.
- B. Take 5 black-and-white project photographs, in accordance with requirements indicated, to best show the status of construction and progress since taking previous photographs.
 1. Frequency: Take photographs weekly, with timing each month adjusted to coincide with the cutoff date associated with each Application for Payment.
 2. Vantage Points: Following suggestions by the COR and the Contractor, the photographer shall select vantage points. During each of the following construction phases, take not less than 2 of the required shots from the same vantage point each time to create a time-lapse sequence as follows:
 - a. Interior Work, through date of Substantial Completion.
- C. Additional Photographs: From time to time the Government may issue requests for additional photographs, in addition to periodic photographs specified. Additional photographs will be paid for by Change Orders and are not included in the Contract Sum or an allowance.
 1. The COR will give the photographer 3 days' notice, where feasible.
 2. In emergency situations, the photographer shall take additional photographs within 24 hours of the COR's request.
 3. Circumstances that could require additional photographs include, but are not limited to, the following:
 - a. Substantial Completion of a major component of Work.
 - b. The Owner's request for special publicity photographs.
 - c. Special events planned at the Project Site.
 - d. Immediate follow-up when on-site events result in construction damage or losses.

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- e. Photographs to be taken at fabrication locations away from the Project Site. These are not subject to unit prices or unit-cost allowances.
- f. Extra record photographs at time of final acceptance.

END OF SECTION 01380

SECTION 01400 - QUALITY CONTROL

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality-control services.
- B. Quality-control services include inspections, tests, and related actions, including reports performed by Contractor, by independent agencies, and by governing authorities.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.

- 1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
- 2. Specified inspections, tests, and related actions do not limit Contractor's quality-control procedures that facilitate compliance with Contract Document requirements.

1.2 RESPONSIBILITIES

- A. Contractor Responsibilities: Unless otherwise indicated as the responsibility of another identified entity, Contractor shall provide certified testing and inspection agencies, inspections, tests, and other quality-control services specified elsewhere in the Contract Documents and required by authorities having jurisdiction. Costs for these services are included in the Contract Sum.
 - 1. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Contractor's responsibility, the Contractor shall employ and pay a qualified independent testing agency to perform quality-control services. Costs for these services are included in the Contract Sum.
 - 2. Where individual Sections specifically indicate that certain inspections, tests, and other quality-control services are the Government's responsibility, the Government will employ and pay a qualified independent testing agency to perform those services.
 - a. Where the Government has engaged a testing -agency for testing and inspecting part of the Work, and the Contractor is also required to engage an entity for the'same or related element, the Contractor shall not employ the entity engaged by the Government, unless agreed to in writing by the Government.
- B. Retesting: The Contractor is responsible for retesting where results of inspections, tests, or other quality-control services prove unsatisfactory and indicate noncompliance with Contract Document requirements, regardless of whether the original test was Contractor's responsibility.

1. The cost of retesting construction, revised or replaced by the Contractor, is the Contractor's responsibility where required tests performed on original construction indicated noncompliance with Contract Document requirements.
- C. Associated Services: Cooperate with agencies performing required inspections, tests, and similar services, and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include, but are not limited to, the following:
 1. Provide access to the Work.
 2. Furnish incidental labor and facilities necessary to facilitate inspections and tests.
 3. Take adequate quantities of representative samples of materials that require testing or assist the agency in taking samples.
 4. Provide facilities for storage and curing of test samples.
 5. Deliver samples to testing laboratories.
 6. Provide security and protection of samples and test equipment at the Project Site.
- D. Duties of the Testing Agency: The independent agency engaged to perform inspections, sampling, and testing of materials and construction specified in individual Sections shall cooperate with the COR and the Contractor in performance of the agency's duties. The testing agency shall provide qualified personnel to perform required inspections and tests.
 1. The agency shall notify the COR and the Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 2. The agency is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.
 3. The agency shall not perform any duties of the Contractor.
- E. Coordination: Coordinate the sequence of activities to accommodate required services with a minimum of delay. Coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.
 1. The Contractor is responsible for scheduling times for inspections, tests, taking samples, and similar activities.

1.3 SUBMITTALS

- A. Within 30 calendar days of Contract award, the Contractor shall submit a Quality Control Plan, including proposed independent inspection and testing agencies. Work shall not commence until this submittal has been approved by the Government.
- B. Unless the Contractor is responsible for this service, the independent testing agency shall submit a certified written report, in duplicate, of each inspection, test, or similar service to the COR. If the Contractor is responsible for the service, submit a certified written report, in duplicate, of each inspection, test, or similar service through the Contractor.
 1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.
 2. Report Data: Written reports of each inspection, test, or similar service include, but are not limited to, the following:
 - a. Date of issue.

- b. Project title and number.
- C. Name, address, and telephone number of testing agency.
- d. Dates and locations of samples and tests or inspections.
- e. Names of individuals making the inspection or test.
- f. Designation of the Work and test method.
- 9. Identification of product and Specification Section.
- h. Complete inspection or test data.
- i. Test results and an interpretation of test results.
- j. Ambient conditions at the time of sample taking and testing.
- k. Comments or professional opinion on whether inspected or tested Work complies with Contract Document requirements.
- l. Name and signature of laboratory inspector.
- M. Recommendations on retesting-

1.4 QUALITY ASSURANCE

- A. Qualifications for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, that are prequalified as complying with the American Council of Independent Laboratories' "Recommended Requirements for Independent Laboratory Qualification" and that specialize in the types of inspections and tests to be performed.

- 1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the state where the Project is located.
- 2. Proposed independent inspection and testing agencies shall be approved by the Government prior to the commencement of any work.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

- A. General: Upon completion of inspection, testing, sample taking and similar services, repair damaged construction and restore substrates and finishes.
- B. Protect construction exposed by or for quality-control service activities, and protect repaired construction.
- C. Repair and protection is Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing, or similar services.

END OF SECTION 01400

SECTION 01421 - REFERENCE STANDARDS AND DEFINITIONS

PART I - GENERAL

1.1 DEFINITIONS

- A. General: Basic contract definitions are included in the Conditions of the Contract.
- B. "Indicated": The term "Indicated" refers to graphic representations, notes, or schedules on the Drawings; or to other paragraphs or schedules in the Specifications and similar requirements in the Contract Documents. Terms such as "shown," "noted," "scheduled," and "specified" are used to help the user locate the reference. Location is not limited.
- C. "Directed": Terms such as "directed," "requested," "authorized," "selected," "approved," "required," and "permitted" mean directed by the Contracting Officer's Representative (COR), requested by the COR, and similar phrases.
- D. "Regulations": The term "regulations" includes laws, ordinances, statutes, and lawful orders issued by authorities having jurisdiction, as well as rules, conventions, and agreements within the construction industry that control performance of the Work.
- E. "Furnish": The term "furnish" means to supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation, and similar operations.
- F. "Install": The term "install" describes operations at the Project site including the actual unloading, temporary storage, unpacking, assembling, erecting, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning, and similar operations.
- G. "Provide": The term "provide" means to furnish and install, complete and ready for the intended use.
- H. "Installer": An installer is the Contractor or another entity engaged by the Contractor, either as an employee, subcontractor, or contractor of lower tier, to perform a particular construction activity, including installation, erection, application, or similar operations. Installers are required to be experienced in the operations they are engaged to perform.

1 .The term "experienced," when used with the term "installer," means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with the special requirements indicated; and having complied with requirements of authorities having jurisdiction.

2. Trades: Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to trades persons of the corresponding generic name.

3. Assigning Specialists: Certain Sections of the Specifications require that specific construction activities shall be performed by specialists who are recognized experts in those operations. The specialists must be engaged for those activities, and their assignments are requirements over which the Contractor has no option. However, the ultimate responsibility for fulfilling contract requirements remains with the Contractor.

- a. This requirement shall not be interpreted to conflict with enforcing building codes and similar regulations governing the Work. It is also not intended to Interfere with local trade-union jurisdictional settlements and similar conventions.

- I. "Project site" is the space available to the Contractor for performing construction activities, either exclusively or in conjunction with others performing other work as part of the Project. The extent of the Project site is shown on the Drawings and may or may not be identical with the description of the land on which the Project is to be built.
- J. "Testing Agencies": A testing agency is an independent entity engaged to perform specific inspections or tests, either at the Project site or elsewhere, and to report on and, if required, to interpret results of those inspections or tests.

1.2 SPECIFICATION FOR-MAT AND CONTENT EXPLANATION

- A. Specification Format: These Specifications are organized into Divisions and Sections based on the 17-division format and CSI/CSC's "MasterFormat" numbering system.
- B. Specification Content: These Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
 - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be interpolated as the sense requires. Singular words shall be interpreted as plural and plural words interpreted as singular where applicable as the context of the Contract Documents indicates.
 - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by the Contractor. At certain locations in the Text, subjective language is used for clarity to describe responsibilities that must be fulfilled indirectly by the Contractor or by others when so noted.
 - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon () is used within a sentence or phrase.

1.3 INDUSTRY STANDARDS

- A. Applicability of Standards: Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
- B. Publication Dates: Comply with the standards in effect as of the date of the Contract Documents.
- C. Conflicting Requirements: Where compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different but apparently equal to the COR for a decision before proceeding.
 - 1 Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of the requirements. Refer uncertainties to the COR for a decision before proceeding.

- D. Copies of Standards: Each entity engaged in construction on the Project must be familiar with industry standards applicable to its construction activity. Copies of applicable industry standards are not bound with the Contract Documents. Where copies of standards are needed to perform a required construction activity, the Contractor shall obtain copies directly from the publication source and make them available on request.
- E. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where abbreviations and acronyms are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards-generating organization, authorities having jurisdiction, or other entity applicable to the context of the text provision. Refer to Gale Research's "Encyclopedia of Associations" or Columbia Books' "National Trade & Professional Associations of the U.S.," which are available in most libraries.
- F. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. The following abbreviations and acronyms, as referenced in the Contract Documents, mean the associated names. Names and addresses are subject to change and are believed, but are not assured, to be accurate and up-to-date as of the date of the Contract Documents.

(List all applicable documents along with trade or standard association address)

END OF SECTION 01421

SECTION 01510 - TEMPORARY FACILITIES

PART I - GENERAL

1.1 SUMMARY

- A. Furnish all temporary facilities, including field offices, storage sheds, and temporary utilities required for the duration of the Work.

1.2 JOB CONDITIONS

- A. Determine exact location of buildings and sheds at the job site, subject to approval of COR. Prepare the site. Perform demolition or grubbing needed to clear a space adequate for the structures.
- B. Pay for all utilities used by temporary facilities during construction.
- C. Mount anchor, and secure temporary facilities to resist local wind and seismic design criteria.

1.3 SUBMITTALS

- A. Submit location plan of temporary facilities for approval, including parking and driveways.

PART 2 - PRODUCTS

2.1 TEMPORARY STORAGE BUILDINGS

- A. Furnish storage buildings of adequate size to store materials and equipment delivered to the site that might be affected by weather.

2.2 TEMPORARY SANITARY FACILITIES

- A. Provide portable sanitary facilities at the job site from the commencement of the project to its conclusion, Maintain facilities in clean and sanitary conditions and comply with the requirements of the local health authority.
- B. Contractor's workmen shall use these sanitary facilities at all times. Restrooms within existing or Government occupied buildings shall not be used. Portable toilets shall be maintained and cleaned on a regular basis, not less than weekly.

2.3 TEMPORARY HEATING AND COOLING

- A. Provide all heating devices needed to protect the building during construction. Provide fuel required to service the heating devices. Heating devices shall be attended at all times. Heaters shall not be allowed to operate overnight without someone in attendance.

- B. Protect concrete during placing, setting and curing. Maintain space temperature at not less than 55 degrees F.
- C. Maintain temporary spaces at a temperature of not less than 60 degrees for a period of 10 days prior to placement of interior finishes, and until completion of the Work.

2.4 TEMPORARY UTILITIES

- A. Provide temporary utilities required by trades during construction, including electrical power, water, and telephone. Make arrangements with local utility company; comply with utility company's requirements; and pay utility costs during construction.
- B. Provide a source of temporary electrical power of adequate size for the construction procedures. Comply with OSHA, other applicable safety requirements, and requirements of the power company, Provide extensions to the various parts of the building as needed. Provide junction boxes in such an arrangement that distribution boxes are available within 75 ft of any part of the structure.

2.5 CONSTRUCTION FENCE

- A. Install and maintain a construction fence around the storage yards. Provide wood picket or chain link construction. Provide gates with padlocks, and provide 5 sets of keys to the Government.

2.6 PROJECT SIGN

- A. Arrange for a professional sign painter to paint a project sign. Sign shall include the Project name, the full name and logo of the FAA, Contractor's name, A/E's name and address. Mount sign at a place selected by the COR. Maintain sign until completion of project.. Submit design of sign to C OR for approval.
- B. Sign shall be painted on a 4'x 8'x 3/4" exterior grade plywood board. Frame sign with 2 x 4 wood frame and mount on not less than two 4 x 4 posts. House plywood board in a channel routed 3/4 inch deep into the 2 x 4 frame. Corners shall be shouldered, glued and screwed.
- C. No other signs shall be installed at the construction site, except that individual contractors may install a sign not greater than 48" x 36" on the side of their construction office, or the side of the office or trailer may have the companies name or identification permanently and neatly applied.

PART 3 - EXECUTION

3.1 LOCATION OF TEMPORARY FACILITIES

- A. Submit for approval the location for all temporary facilities. Locate facilities in an area that will not interfere with any work to be performed under this Contract.

3.2 REMOVAL OF TEMPORARY FACILITIES

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- A. At the conclusion of the Project, remove temporary buildings, shed, and utilities, and restore site to original condition and finish in accordance with the Drawings.

END OF SECTION 01510

SECTION 01600 - MATERIALS AND EQUIPMENT

PART I - GENERAL

1.1 SUMMARY

- A. This Section includes administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. Related Sections:
 - 1. Section 01421, "Reference Standards and Definitions" specifies the applicability of industry standards to products specified.
 - 2. Section 01300, "Submittals" specifies requirements for submittal of the Contractor's Construction Schedule and the Submittal Schedule.

1.2 DEFINITIONS

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms are self-explanatory and have well-recognized meanings in the construction industry.
 - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms **to material,** "equipment," "system," and terms of similar intent.
 - a. "Named Products" are items identified by the manufacturer's product name, including make or model number or other designation, shown or listed in the manufacturer's published product literature, that is current as of the date of the Contract Documents.
 - b. "Foreign Products," as distinguished from "domestic products," are items substantially manufactured (50 percent or more of value) outside the United States and its possessions. Products produced or supplied by entities substantially owned (more than 50 percent) by persons who are not citizens of, nor living within, the United States and its possessions are also considered to be foreign products.
 - 2. "Materials" are products substantially shaped, cut, worked, mixed, finished, refined or otherwise fabricated, processed, or installed to form a part of the Work.
 - 3. "Equipment" is a product with operational parts, whether motorized or manually operated. that requires service connections, such as wiring or piping.

1.3 SUBMITTALS

- A. Product List: Prepare a list showing products specified in tabular form acceptable to the COR Include generic names of products required. Include the manufacturer's name and proprietary product names for each item listed.
 - 1. Coordinate product list with the Contractor's Construction Schedule and the Schedule of Submittals.
 - 2. Form: Prepare product list with information on each item tabulated under the following column headings:
 - a. Related Specification Section number.
 - b. Generic name used in Contract Documents.

- C. Proprietary name, model number, and similar designations.
- d. Manufacturer's name and address.
- e. Supplier's name and address.
- f. Installer's name and address.
- 9. Projected delivery date or time span of delivery period.

3. Initial Submittal: Within 15 days after Contract Award, submit 3 copies of an initial product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.

- a. At the Contractor's option, the initial submittal may be limited to product selections and designations that must be established early in the Contract period.

4. Completed List: Within 30 days after date of commencement of the Work, submit 3 copies of the completed product list. Provide a written explanation for omissions of data and for known variations from Contract requirements.

5. Government's Action: The Government will respond in writing to Contractor within (*Number of Days*) days of receipt of the completed product list. No response within this period constitutes no objection to listed manufacturers or products but does not constitute a waiver of the requirement that products comply with Contract Documents. The Government's response will include a list of unacceptable product selections, containing a brief explanation of reasons for this action.

1.4 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same kind from a single source.

- 1. When specified products are available only from sources that do not, or cannot, produce a quantity adequate to complete project requirements in a timely manner, consult with the COR to determine the most important product qualities before proceeding. Qualities may include attributes, such as visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources producig products that possess these qualities, to the fullest extent possible.

- B. Compatibility of Options: When the Contractor is given the option of selecting between 2 or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.

- 1. Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of separate contractors.
 - 2. If a dispute arises between prime contractors over concurrently selectable, but incompatible products, the Government will determine which products shall be retained and which are incompatible and must be replaced.

- C. Foreign Product Limitations: Except under one or more of the following conditions, provide domestic products, not foreign products, for inclusion in the Work:

- 1. No available domestic product complies with the Contract Documents.

- D. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products that will be exposed to view in occupied spaces or on the exterior.

1. Labels: Locate required product labels and stamps on concealed surfaces or, where required for observation after installation, on accessible surfaces that are not conspicuous.
2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate on an easily accessible surface that is inconspicuous in occupied spaces. The nameplate shall contain the following information and other essential operating data:
 - a. Name of product and manufacturer.
 - b. Model and serial number.
 - c. Capacity.
 - d. Speed.
 - e. Ratings.

1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, and handle products according to the manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss, including theft.
 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
 2. Coordinate delivery with installation time to assure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
 3. Deliver products to the site in an undamaged condition in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
 4. Inspect products upon delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
 6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
 7. Store products subject to damage by the elements above ground, under cover in a weather tight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, new at the time of installation.
 1. Provide products complete with accessories, trim, finish, safety guards, and other devices and details needed for a complete installation and the intended use and effect.
 2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- B. Product Selection Procedures: The Contract Documents and governing regulations govern product selection. Procedures governing product selection include the following:

1. Proprietary Specification Requirements: Where Specifications name only a single product or manufacturer, provide the product indicated. No substitutions will be permitted.
2. Semi-proprietary Specification Requirements: Where Specifications name 2 or more products or manufacturers, provide 1 of the products indicated. No substitutions will be permitted.

a. Where Specifications specify products or manufacturers by name, accompanied by the term "or equal" or "or approved equal," comply with the Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

3. Non-proprietary Specifications: When Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.

4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.

5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements and are recommended by the manufacturer for the application indicated.

a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract

6. Compliance with Standards, Codes, and Regulations: Where Specifications only require compliance with an imposed code, standard, or regulation, select a product that complies with the standards, codes, or regulations specified.

7. Visual Matching: Where Specifications require matching an established Sample, the COR's decision will be final on whether a proposed product matches satisfactorily.

a. Where no product available within the specified category matches satisfactorily and complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category.

8. Visual Selection: Where specified product requirements include the phrase "as selected from manufacturer's standard colors, patterns, textures ..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Architect will select the color, pattern, and texture from the product line selected.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.

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1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

END OF SECTION 01600

SECTION 01613 - DELIVERY, STORAGE, AND HANDLING

PART I - GENERAL (NOT APPLICABLE)

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 DELIVERY

- A. Deliver and handle goods according to manufacturer's recommendations, using means and methods that will prevent damage, deterioration, and loss.
- B. Schedule delivery to minimize long-term storage at the Project Site and to prevent overcrowding construction spaces. Coordinate delivery for items that are flammable, hazardous, easily damaged, or sensitive to deterioration or theft with installation time to ensure minimum holding time.
- C. Schedule and effect delivery of goods to take place at the times they are required for installation, unless otherwise specified.
- D. Deliver goods to the Project Site in manufacturer's original sealed container, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- E. Inspect goods on delivery to ensure compliance with the Contract Documents and to ensure goods are undamaged and protected against damage.

3.2 STORAGE

- A. Store goods at the Project Site according to manufacturer's recommendations and in a manner that will facilitate inspection and measurement of quantity or counting of units. Store goods using means and methods that will prevent damage, deterioration, and theft or other loss.
- B. Store heavy goods in a manner that will not endanger building structure.
- C. Maintain temperature and humidity in areas where goods are stored within the range required by manufacturer's written instructions.

END OF SECTION 01613

SECTION 01700 – CONTRACT CLOSE-OUT

PART 1 – GENERAL

1.1 SUMMARY

- A. This section includes administrative and procedural requirements for contract closeout including, but not limited to, the following:
1. Inspection procedures.
 2. Project record document submittal.
 3. Operation and Maintenance manual submittal.
 4. Submittal of warranties.
 5. Final Cleaning.
- B. Closeout requirements for specific construction activities are included in the appropriate Sections in Divisions 2 through 17.

1.2 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: Before requesting inspection for certification of Substantial Completion, complete the following., List exceptions in the request.
1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the Work claimed as substantially complete.
 - a. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.
 - b. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the Work is not complete.
 2. Advise the Government of pending insurance changeover requirements.
 3. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
 4. Obtain and submit releases enabling the Government unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 5. Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys, and similar final record information.
 6. Deliver tools, spare parts, extra stock, and similar items.
 7. Make final changeover of permanent locks and transmit keys to the Government. Advise the Government's personnel of changeover in security provisions.
 8. Complete startup testing of systems and instruction of the Government's operation and maintenance personnel. Discontinue and remove temporary facilities from the site, along with **mockups**, construction tools, and similar elements.
 9. Complete final cleanup requirements, including **touchup** painting.
 10. Touch up and otherwise repair and restore marred, exposed finishes.

B. Inspection Procedures: On receipt of a request for inspection, the COR shall either proceed with inspection or advise the Contractor of unfilled requirements. The COR shall prepare the Certificate of Substantial Completion following inspection or advise the Contractor of construction that must be completed or corrected before the certificate shall be issued

1. The COR shall repeat inspection when requested and assured that the work is substantially complete.

2. Results of the completed inspection shall form the basis of requirements for final acceptance

1.3 FINAL ACCEPTANCE

A. preliminary Procedures: Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.

1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include insurance certificates for products and completed operations where required.

2. Submit an updated final statement, accounting for final additional changes to the Contract Sum.

3. Submit a certified copy of the Government's final inspection list of items to be completed or corrected, endorsed and dated by the Government. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance and shall be endorsed and dated by the Government

4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of the date of Substantial Completion or when the Government took possession of and assumed responsibility for corresponding elements of the Work.

5. Submit consent of surety to final payment.

6. Submit a final liquidated damages settlement statement

7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.

B. Re-inspection Procedure: The Government shall re-inspect the Work upon receipt of notice that the Work, including inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to the Government.

1. Upon completion of **re-inspection**, the Government shall prepare a certificate of final acceptance. If the Work is incomplete, the Government shall advise the Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance.

2. If necessary, **re-inspection** shall be repeated.

1.4 RECORD DOCUMENT SUBMITTALS

- A. General: Do not use record documents for construction purposes. Protect record documents from deterioration and loss in a secure, fire-resistant location. Provide access to record documents for the COR's reference during normal working hours.
- B. Record Drawings: Maintain a clean, undamaged set of blue or black line **white prints** of Contract Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Contract Drawings. Give particular attention to concealed elements that would be difficult to measure and record at a later date.
1. Mark record sets with red erasable pencil. Use other colors to distinguish between variations in separate categories of the Work.
 2. Mark new information that is important to the Government but was not shown on Contract Drawings or Shop Drawings.
 3. Note related change-order numbers where applicable. Organize record drawing sheets into manageable sets. Bind sets with durable-paper cover sheets; print suitable titles, dates,, and other identification on the cover of each set.
- C. Record Specifications: Maintain one complete copy of the Project .Manual., including addenda. :Include with the Project Manual 1-copy of other written construction documents, such as Change Orders and modifications issued in. printed form during construction.
1. Mark these document to show substantial variations in actual 'Work performed in comparison with the text of the Specifications and modifications.
 2. Give particular attention to substitutions and selection of options and information on concealed construction that cannot otherwise be readily discerned, later b; y direct observation.
 3. Note related record drawing information and Product Data.
 4. Upon completion of the Work, submit record Specifications to the COR for the Government's records.
- D. Record Product Data: Maintain one copy of each Product Data submittal. Note related Change Orders and markup of record drawings and Specifications.
1. Mark these documents to show significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the site and from the manufacturer's installation instructions and recommendations.
 - 2.. Give particular attention to concealed products and portions of the Work that cannot otherwise be readily discerned later by direct observation.
 3. Upon completion of markup, submit complete; set of record Product Data to the COR for the Government's records.
- E. Record Sample Submitted: Immediately prior to Substantial Completion, the Contractor shall meet with Government's personnel pat the Project Site to determine which Samples art; to be transmitted to the Government: for record purposes. Comply with the Government's instructions regarding delivery to, the Owner's Sample storage area.

F. Miscellaneous Record Submittals: Refer to other Specification Sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date or dates of Substantial Completion, complete miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to the COR for the Government's records.

G. Maintenance Manuals: Organize operation and maintenance data into suitable sets of manageable size. Band properly indexed data in individual, heavy-duty, 2-inch (51-ram), 3-ring, vinyl-covered binders, with pocket folders for folded sheet information. Mark appropriate identification on front and spine of each binder. Include the following types of information:

1. Emergency instructions.
2. Spare parts list.
3. Copies of warranties.
4. Wiring diagrams.
5. Recommended "turn-around" cycles.
6. Inspection procedures.
7. Shop Drawings and Product Data.
8. Fixture lamping schedule

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION

3.1 CLOSE-OUT PROCEDURES

A. Operation and Maintenance Instructions: Arrange for each Installer of equipment that requires regular maintenance to, meet with Government's personnel to provide instruction in proper operation and maintenance. Provide instruction by manufacturer's representatives if installers are not experienced in operation and maintenance procedures. Include a detailed review of the following items:

1. Maintenance manuals.
2. Record documents.
3. Spare parts, and materials: ,,,,
4. Tools.
5. Lubricants,,
6. Fuels.
7. Identification systems.
8. Control sequences.
9. Hazards.
10. Cleaning.
11. Warranties and bonds.
12. Maintenance agreements sand similar continuing commitments.

B. As part of instruction for operating equipment, demonstrate the following procedures:

1. Startup.

2. Shutdown.
3. Emergency, operations.
4. Noise and vibration adjustments.
5. Safety procedures.
6. Economy and efficiency adjustments.
- 7 Effective energy utilization.

3.2 FINAL CLEANING

- A. General: The General Conditions requires general cleaning during construction. Also, refer to Section 01710 "Cleaning". ..
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building, cleaning and maintenance program. Comply with manufacturer's instructions.
1. Complete the following cleaning operations before requesting inspection for certification of Substantial! Completion.
 - a. Remove labels that are not permanent labels.
 - b. Clean transparent materials;, including mirrors and glass in doors and windows. Remove glazing compounds and other substances that are noticeable vision-obscuring materials. Replace chipped or broken glass anti other damaged transparent materials.
 - c. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original condition. Leave concrete floors broom clean. Vacuum carpeted surfaces.
 - d. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.
 - e. Clean the site, including a landscape development areas; of rubbish, litter, and other foreign substances. Sweep paved areas broom clean; remove stains, spills, and other foreign deposits. Rake grounds that are: neither paved nor planted to a smooth, even-textured surface.
- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid the Project of rodents, insects, and other pests.
- D. Removal: of Protection: Remove temporary protection and facilities installed for protection of the Work during construction.
- E. Compliance: Comply with regulations of authorities having jurisdiction and safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Government's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from the site and dispose of lawfully.
1. Where extra materials of value remain after completion of associated Work, they become the Government property. Dispose of these :materials as directed by the Government.

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END OF SECTION 01700

SECTION 01710 .. CLEANING

PART 1 - GENERAL

1.1 SUMMARY

- A. Just prior to occupancy of the building by the Government, and prior to Contract Acceptance Inspection (CAI), perform a thorough cleaning of the site, buildings, and other structures.
- B. Related Section:
 - 1. Section 0.1510, "Temporary Facilities."

1.2 SUBMITTALS

- A. Submit in accordance with Section 01300, "Submittals," and include the following:
 - 1. Record of Finishes
 - 2. Maintenance Instructions
- B. Provide a typewritten description of finish materials along with a list of the cleaning products recommended by the manufacturer. Place forms in the appropriate Section of the O & M Manual. Refer to Section 01700, "Contract Closeout." Describe maintenance needed, including daily, weekly, and monthly maintenance instructions. Complete a Maintenance: Instruction Form for the following:
 - 1. Vinyl Composition Tile
 - 2. Acoustical Tile
 - 3. Paint

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Furnish materials and equipment needed for cleaning and waxing purposes. Use cleaners and waxes recommended by the manufacturer for the individual material.

PART 3 - EXECUTION

3.1 SITE CLEANING

- A. Maintain site in clean condition at all times. At the end of each workday, gather all loose trash and debris from around site and place in trash containers or remove from site. Do not stack trash or other construction debris on the ground or in the open. Place trash in closed containers. Do not allow trash or debris to become airborne; blow around or blow off site.

3.2 ROUTINE CLEANING

- A. Routinely clean buildings to remove all construction debris, packing crates, wrappings, packing materials, or other trash. Each trade is responsible to remove trash and debris resulting from his operations.
- B. Maintain entire space of buildings in a clean condition at all times. Once partitions have been installed, maintain spaces in a "broom-clean" condition. Prior to installation of finishes and paint, thoroughly clean spaces of trash and debris, sweep floors clean and mop to remove dust.

3.3 FINAL CLEANING

- A. Thoroughly clean the entire building; and make ready for occupancy. Remove construction debris, boxes and trash. Clean entire site, removing all trash from the site. Remove construction storage sheds and field, offices and restore grade to match surrounding conditions. Remove excess dirt and complete sitework.
- B. Clean floor and inspect for damage. Replace damaged flooring. Remove paint drippings and other spillage. Sweep floors clean, then mop repeatedly until thoroughly clean, including equipment rooms. Clean resilient flooring with an approved cleaner and give one coat application of liquid floor polish as recommended by the flooring manufacturer. Polish floors to buffed appearance with powered floor buffer. Remove oil, grease and other contaminants from concrete floors, then mop repeatedly until thoroughly clean.
- C. Clean and polish inside and outside surfaces of glass. After washing with window cleaner and water, apply a coat of high quality glass polish and wipe clean. Clean and polish mirrors to a clear luster, free of smears or dried polish. Do not scratch or otherwise mar glass surfaces.
- D. Clean wall surfaces to remove dirt or scuff marks. Remove excess adhesive along top edges of wall base.
- E. Inspect acoustical tile. Align tile to fit properly in grid. Replace cracked or damaged tile. Remove smear marks and other dirt from tile. Clean surface and grid system.
- F. Inspect painted surfaces. Spot paint nicks and other damage. If spot painting does not blend into the existing color and texture of the surrounding surfaces, repaint wall from inside corner to inside corner.
- G. Clean plumbing fixtures, faucets, aerators, valves and trim. Remove labels and adhesive from fixtures. Polish strainers. Polish exposed chrome or brass.
- H. Clean mechanical rooms. Remove shipping labels, tape, tape residue, dirt and dust from equipment and apparatus with vacuum or compressed air. Remove oil, grease and other contaminants from floors and equipment. Remove and clean screens at strainers in piping systems. Clean insects, debris, and dust from louver screens.

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END OF SECTION 01710

**PART - III SECTION J
ATTACHMENT J.6**

CONTRACTOR ACCEPTANCE INSPECTION REPORT COVER SHEET				Location (City/State)					
Cost Center Code	Location Ident.	Facility Alpha Code	Facility Ident. Code	S	C	F	T	M	Runway No.
Delivery Order No.	Contract No.	Designated Lead Project _ Yes _____ _ No _____			Dates of Final CAI				
Engineering Plan/Project:						Dates of Commissioning/Restoration			
Brief Description of Project:									
Type of CAI _____ PLANTS _____ FINAL _____ ELECTRONICS _____ PARTIAL NO. _____						Previous Partial CAI's (Nos./Date)			
Number of Exceptions: Major: _____ Minor: _____		No. of CAI Reports Exception List and Clearances Record Sheets Attached: _____				Number of Design Deficiencies or Improvements Identified or Recommended: _____			
Documents/Records Applicable to CAI:									
_____ FAA 6030-16 TRDR Cover/Transmittal Sheet		_____ FAA 6030-17 TRDR's; FAA 6030-15 Fac. Gen. Ref. Data Record		_____ FAA Form 3900-1, Occupational Safety and Health Inspection Report		_____ Radiation Health Hazard Survey		_____ FAA Form 6980-4, Standby Power Survey	
_____ Flight Inspection Reports/Results		_____ Obstn. Survey and/or Hrzn Profile(new Fac.)		_____ Plant Equipment Performance Test Data					
Contractor Acceptance Inspection Participants (Name/Office)									

Contractor Acceptance Inspection Participants (Name/Office)									
We have reviewed the finding of this CAI Report and have determined that the facility/equipment or work described in this report is (__ acceptable __ not acceptable) for (__ transfer of custodialship __ maintenance __ maintenance and operation on a commissioned bases) with (__ no exceptions __ exceptions) Listed on the CAI Exception List and Clearance Record.									
_____ AFS Representative (Chairperson)			_____ AFD F&E Representative			_____ Representative			
_____ AT Facility Representative			_____ AFD Maint Br Representative			_____ Representative			
Acceptance by Airway Facilities Sector/Sector Field Office:									
The facility/system/equipment or work described in this JAI Report was accepted for:									
_____ custodialship		_____ maintenance		_____ maintenance and operation on: _____					
_____ AFS/SFO Manager									
I have reviewed this CAI Report, and (__ concur __ nonconcur) with the Contractor Acceptance Inspection findings. (If Applicable: __A letter is attached explaining nonconcurrency.)									
_____ AFS Manager					_____ Date				

CONTRACTOR ACCEPTANCE INSPECTION REPORT CHECKLIST					Sheet 1 of 6	
Ident. & Fac. Alpha Code		Delivery Order No.	Date of CAI	Type of CAI: <input type="checkbox"/> Plants Final <input type="checkbox"/> Electronics Partial no.		
Item No.	REQUIREMENT	REQUIREMENT		Exception Category		
		N/A	MEETS	Major	Minor	
		YES	NO			
	Section A. Facility Construction and Installation Requirements					
1	Construction Standards and Specifications.					
2	Construction Appearance.					
3	Roads and Grounds:					
	a. Surface Condition.					
	b. Erosion Control.					
	c. Drainage.					
	d. Fences/Gates/Cattleguards.					
	e. Signs.					
4	Structures (Towers/Poles):					
	a. Tower/Pole Construction.					
	b. Ladders, Steps.					
	c. Guys/Anchors.					
	d. Lightning Protection					
5	Buildings:					
	a. Roof.					
	b. Exterior Walls.					
	c. Foundation.					
	d. Floors.					
	e. Interior Walls.					
	f. Ceiling/Lights.					
	g. Openings.					
	h. Plumbing, Water and Sewage Systems.					
6	Site/Facility Cleanup.					

CONTRACTOR ACCEPTANCE INSPECTION REPORT CHECKLIST						Sheet 2 of 6	
Ident. & Fac. Alpha Code		Job Order No.	Date of CAI	Type of CAI:			
				Plants		Final	
				Electronics		Partial no.	
Item No.	REQUIREMENT	REQUIREMENTS			Exception Category		
		N/A	YES	NO	Major	Minor	
	Section A. Facility Construction and Installation Requirements						
7	Lessor's Inspection and Letter of Release.						
8	Commercial Power Service.						
9	Power Transformers.						
10	Facility Electrical Wiring and Lighting.						
11	Facility/Structure Grounding.						
12	Lightning and Surge Protection.						
13	Distribution, Demarcation, and Terminal Panels, Boxes, and Cabinets.						
14	Construction Inspection of Power, Control, Signal, and Coaxial Cables.						
15	Underground Cables.						
16	Cable Load and Voltage Drop.						
17	Standby Engine Generator.						
18	UPS/PCS/Battery Backup Systems.						
19	Environmental Systems (HVAC).						
20	Equipment Installation (Standards and Specifications).						
21	Equipment Appearance.						
22	Equipment Grounding, Bonding, and Shielding.						
23	Equipment Ventilation.						
24	Antennas and Antenna Systems.						
25	Coaxial Cable Tests and Documentation.						
26	Ground Check/Reference Markers.						
27	Equip. Mods., CCD's, Manufacturer's Field and Factory Changes.						
28	FAA/Telco Ground Rules.						
29	Telco Equipment Operation.						
30	Leased Telecommunications Service.						
31	Occupational Safety. Battery and electrical safety equipment.						

CONTRACTOR ACCEPTANCE INSPECTION REPORT CHECKLIST						Sheet 3 of 6	
Ident. & Fac. Alpha Code		Job Order No.	Date of CAI	Type of CAI:			
				Plants		Final	
				Electronics		Partial no.	
Item No.	REQUIREMENTS	REQUIREMENTS			Exception Category		
		N/A	YES	NO	Major	Minor	
	Section A. Facility Construction and Installation Requirements						
32	Radiation Health Hazard Survey.						
33	Fire Protection.						
34	Security.						
35	Frequency Authorizations.						
36	ERMS P1 and P5 panel installation. Interface connection to equipment and communications medium.						
37	UPS remote status panel installed and connected to UPS.						
	Section B. Facility/System/Equipment Performance Requirements.						
1	Systems/Equipment Adjustments and Tuneup.						
2	Systems/Equipment Operation.						
3	Standards and Tolerances.						
4	Deviation From National Standards.						
5	Special Component Selection.						
6	Capability.						
7	Compatibility.						
8	Reliability.						
9	Maintainability.						
10	Electromagnetic Interference.						
11	RMM software loaded on ERMS P1 and P5 CPUs. Communication to the OCC via the MPS. Test alarms and status reports.						
12	UPS remote status panel operational.						

CONTRACTOR ACCEPTANCE INSPECTION REPORT CHECKLIST							Sheet 4 of 6	
Ident. & Fac. Alpha Code		Job Order No.	Date of CAI	Type of CAI:				
				Plants		Final		
				Electronics		Partial no.		
Item No.	REQUIREMENTS	REQUIREMENTS			Exception Category			
		N/A	YES	NO	Major	Minor		
	Section C. Commissioning Flight Inspection Requirements.							
1	Facility/System Certification.							
2	Issuance of Restrictive NOTAMS.							
	Section D. Facility Technical Performance Documentation and Maintenance Reference data Requirements.							
1	Facility Reference Data File (FRDF)							
2	Facility Technical Reference Data:							
	a. FAA Form 6030-15, Facility General Reference Data Record.							
	b. FAA Form 6030-16, Tech. Ref. Data Record Cover/Transmittal Sheets.							
	c. FAA Form 6030-17, Technical Reference Data Records.							
	d. Initial FAA Form (6000 Series), Performance Records.							
3	Plant Equipment Performance Test Data.							
4	Engine Generator Installation:							
	a. Performance Test Data.							
	b. FAA Form 6980-4, Standby Power System.							
5	Facility Drawings.							
6	Facility Instruction Books.							
7	Facility Maintenance Technical Data.							
8	Facility Modification Records.							
9	Facility/System/Equipment, NCP's and CCD's							

CONTRACTOR ACCEPTANCE INSPECTION REPORT CHECKLIST						Sheet 5 of 6	
Ident. & Fac. Alpha Code		Job Order No.	Date of CAI	Type of CAI: <input type="checkbox"/> Plants <input type="checkbox"/> Final <input type="checkbox"/> Electronics <input type="checkbox"/> Partial no.			
Item No.	REQUIREMENT	REQUIREMENTS			Exception Category		
		N/A	MEETS YES	NO	Major	Minor	
	Section D. Facility Technical Performance Documentation and Maintenance Reference Data Requirements (Cont.)						
10	Issuance of Restrictive NOTAMS.						
11	Facility Maintenance Log.						
	Section E. Facility Logistics Support Requirements.						
1	Utilities						
2	Equipment Warranties.						
3	Failures Under Warranty.						
4	Test Equipment.						
5	Initial Spare Parts (ISSAC's).						
6	Working Equipment and Supplies (Schedule A and B).						
7	Description of Facility Property/Leased Space.						
8	Real Property.						
9	In-Use Personal Property.						
10	Project Material.						
11	Excess/Surplus Personal Property and Project Material.						
12	Equipment and Material Listings.						

CONTRACTOR ACCEPTANCE INSPECTION REPORT CHECKLIST Sheet 6 of 6

Ident. & Fac. Alpha Code	Job Order No.	Date of CAI 09/11/97	Type of CAI:			
			<input type="checkbox"/> Plants	<input type="checkbox"/> Final		
			<input type="checkbox"/> Electronics	<input type="checkbox"/> Partial no.		

Item No.	REQUIREMENTS	REQUIREMENTS			Exception Category	
		N/A	MEETS		Major	Minor
			YES	NO		
	Section F. Final Acceptance and Commissioning Requirements.					
	Initial Operating Capability (IOC).					
1	(Includes operations, diagnostics, and support software).					
2	Final Preparation For Facility / System / Equipment Operations.					
3	Operational Readiness Date (ORD).					
4	Airway Facilities Staffing.					
5	Preventative Maintenance (PM).					
6	Facility / System / Equipment Certification and Commissioning Statements.					
7	Establishment and Scheduling of Instrument Approach Procedures (IAP's).					
8	Issuance of Commissioning NOTAM.					
9	Facilities Master File (FMF) Change.					

CONTRACTOR ACCEPTANCE INSPECTION REPORT EXCEPTIONS LIST AND CLEARANCE RECORD	Sheet _____ of _____
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AFS/SFO CC and Location	Fac. ID & Alpha Code	Job Order No.	Dates of CAI	Type of CAI: _____ Plants _____ Final _____ Electronics _____ Partial no. _____
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Exception Category: _____ X Major _____ Minor	Number of Sheets: _____ Major _____ Minor	Total Number of Exceptions: _____ Major _____ Minor
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Sec/ Item No.	Exceptions and Actions Required	Action Office	Estimated Completion Date	Clearance Action Taken	Date Cleared

REMARKS:

CONTRACTOR ACCEPTANCE INSPECTION REPORT EXCEPTIONS LIST AND CLEARANCE RECORD	Sheet _____ of _____
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AFS/SFO CC and Location	Fac. ID & Alpha Code	Job Order No.	Dates of CAI	Type of CAI: _____ Plants _____ Final _____ Electronics _____ Partial no. _____
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Exception Category: _____ Major <input checked="" type="checkbox"/> Minor	Number of Sheets: _____ Major _____ Minor	Total Number of Exceptions: _____ Major _____ Minor
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Sec/ Item No.	Exceptions and Actions Required	Action Office	Estimated Completion Date	Clearance Action Taken	Date Cleared

REMARKS:

PART III – SECTION J
ATTACHMENT J.7
FAA Field Site Requests for UPS Spare Parts Resupply and/or Technical/Engineering Support, Standard Operating Procedure (SOP)

Below is a copy of a "draft" Standard Operating Procedure (SOP) between the FAA and VENDOR Corporation. The SOP details how VENDOR Customer Service (CS) Associates should react/provide responsive service to FAA site calls for assistance in the areas of Spare Parts Resupply and requests for Technical/Engineering Assistance.

VENDOR is requested to review the SOP and revise/update, as appropriate.

NAILS POCs (TBD) are available to answer questions or assist the VENDOR.

"Draft" FAA—VENDOR Corporation
Standard Operating Procedure (SOP)
for
FAA Field Site Requests for Spare Parts Resupply and/or
Technical/Engineering Support

I. FAA SITE ATTEMPTS TO ORDER PARTS FOR THEIR VENDOR UPS UNIT DIRECTLY FROM VENDOR'S SUPPORT CENTER.

A. VENDOR's Customer Service (CS) Associate will inform the FAA site caller/customer that both VENDOR Corporation and the FAA desire to resolve their request for spare parts resupply in the fastest manner possible.

B. VENDOR's (CS) Associate will inform the FAA customer that FAA policy requires that **ALL** FAA site requests for VENDOR UPS spare parts **MUST be submitted through the FAA Logistics & Inventory System (LIS)**. Part numbers should be used in lieu of NSNs.

C. If, after informing the FAA caller of the FAA policy in B. above and if the FAA caller still requests to order spare parts directly from VENDOR—VENDOR' CS Associate will INFORM the FAA caller that FAA sites who disregard the process above (to use the FAA LIS System exclusively) and directly place a spare part(s) order with VENDOR, **will be billed directly by VENDOR and will be responsible** for both the cost of the spare part(s) and the shipping costs. VENDOR's CS Associate will also inform the FAA site that they **may not receive** the requested spare part(s) as expeditiously as if they had ordered it through LIS (i.e. in accordance with the agreed upon FAA "Priority Shipping" Schedule.

PART III – SECTION J
ATTACHMENT J.7
FAA Field Site Requests for UPS Spare Parts Resupply and/or Technical/Engineering Support, Standard Operating Procedure (SOP)

D. If the FAA site has any questions, please refer them to:

(TBD)

or

(TBD)

II. FAA SITE REQUEST FOR TECHNICAL/ENGINEERING ASSISTANCE

Situation One: FAA Site’s VENDOR UPS Unit is still “UNDER WARRANTY”

After verifying that the site UPS unit is still “Under Warranty”, using the serial number provided by the FAA caller, VENDOR’s Customer Service (CS) Associate will—

A. Inform the FAA site caller/customer that both VENDOR Corporation and the FAA desire to resolve their request for technical/engineering assistance in the fastest manner possible.

B. VENDOR’s CS Associate will then proceed through the normal VENDOR “Under Warranty” data gathering and notification/dispatching of Customer Service Engineer (CSE) process. VENDOR’s CS Associate will also obtain, from the FAA site caller, the data requested in C. (2-6) BELOW.

C. Upon completion of the above phone call, VENDOR’s CS Associate will telephone AOS-1040 (FAA’s 2nd Level Engineering Division), using the telephone numbers provided BELOW, and inform AOS-1040 that an FAA site has requested warranty assistance and the information contained in the 7 lines below:

1. VENDOR’s CS Associate will state that the VENDOR UPS is still “UNDER WARRANTY”
2. FAA UPS Serial and Model numbers
3. FAA Site location, date and time the FAA site called VENDOR
4. Name of FAA Caller/Point of Contact (POC)
5. FAA POC Telephone number

PART III – SECTION J

ATTACHMENT J.7

FAA Field Site Requests for UPS Spare Parts Resupply and/or Technical/Engineering Support, Standard Operating Procedure (SOP)

6. Brief description of UPS’s problem
7. The CONTRACTOR’s CS Associate will state that the VENDOR CSE was dispatched and should arrive at the FAA site on (date & time)

a). During Normal Business hours--

Call (405) 954- 4635 (AOS Secretary) and ask to speak with the AOS-1040 Engineer supporting UPS’s or if unavailable, leave a message for the AOS Engineer, in either case inform AOS of the information contained in the 7 lines of C. ABOVE

b). After Normal Business hours--

Call the FAA Mike Monroney Aeronautical Center (MMAC) DUTY OFFICER (405) 954-3583, in Oklahoma City and leave a message, to be delivered during normal duty hours, for the AOS-1040 (2d Level Engineering Division) Engineer supporting UPSs with the information contained in the 7 lines of C. ABOVE.

D. Upon completion of the above phone call to AOS-1040, VENDOR’s CS Associate will then e-mail Mr./Ms. XXXXXXX (VENDOR’s CDLS Program Manager). The e-mail should state that VENDOR’s CS Associate had received an “UNDER WARRANTY” request for assistance from an FAA Field site and has successfully contacted AOS-1040 or the MMAC Duty Officer and passed along the information contained in the 7 lines of C. ABOVE.

E. If the FAA site has any questions, please refer them to:

(TBD)

or

(TBD)

Situation Two: FAA Site UPS is “OUT of WARRANTY”

After verifying that the UPS unit is NOT UNDER WARRANTY, using the serial number provided by the FAA caller, VENDOR’s CS Associate will—

PART III – SECTION J

ATTACHMENT J.7

FAA Field Site Requests for UPS Spare Parts Resupply and/or Technical/Engineering Support, Standard Operating Procedure (SOP)

A. Inform the FAA site customer that both VENDOR Corp. and the FAA desire to resolve their request for technical/engineering assistance in the fastest manner possible.

B. Request that the FAA caller provide VENDOR's CS Associate with the information (1-5) below and then request that the FAA caller follow the process given in C. BELOW to obtain expeditious technical/engineering support, directly from the FAA.

1. UPS Serial and Model numbers
2. FAA Site location, date and time the FAA site called VENDOR
3. Name of FAA site POC
4. FAA site POC Telephone number
5. Brief description of UPS unit's problem

C. To obtain FAA site Engineering/Technical Support—"FAA sites will request assistance via telephone from their supporting SMO and Regional 470 office, in that order."

D. Upon completion of the above phone call, VENDOR's CS Associate will call AOS-1040 (FAA's 2nd Level Engineering Division) and inform AOS-1040 that an FAA site has requested assistance for a UPS Unit that is "OUT OF WARRANTY" and the information contained in the 7 lines below:

1. VENDOR's CS Associate will state that the UPS unit is "OUT of WARRANTY"
2. FAA UPS Serial and Model numbers
3. FAA Site location, date and time the FAA site called VENDOR
4. Name of FAA Caller/Point of Contact (POC)
5. FAA POC Telephone number
6. Brief description of UPS unit's problem
7. VENDOR's CS Associate will state that the FAA caller was requested to contact their support SMO or Regional 470, in that order, for technical/engineering support.

a). During Normal Business hours--

Call (405) 954- 4635 (AOS Secretary) and ask to speak with the AOS-1040 Engineer supporting UPS's or if unavailable, leave a message for the AOS Engineer, in either case inform AOS of the information contained in the 7 lines of D ABOVE

PART III – SECTION J
ATTACHMENT J.7
FAA Field Site Requests for UPS Spare Parts Resupply and/or Technical/Engineering Support, Standard Operating Procedure (SOP)

b). After Normal Business hours--

Call the FAA Mike Monroney Aeronautical Center (MMAC) DUTY OFFICER (405) 954-3583, in Oklahoma City and leave a message, to be delivered during normal duty hours, for AOS-1040 (2d Level Engineering Division) Engineer supporting FAA UPSs with the information contained in the 7 lines of D. ABOVE.

E. Upon completion of the above phone call to AOS-1040, VENDOR's CS Associate will then e-mail Mr./Ms. XXXXXXX (VENDOR's CDLS Program Manager). The e-mail should state that VENDOR's CS Associate had received an "OUT of WARRANTY" request for assistance from an FAA Field site and has successfully contacted AOS-1040 or the MMAC Duty Officer and passed along the information contained in the 7 lines of D. ABOVE.

F. If the FAA site has any questions, please refer them to:

(TBD)

or

(TBD)

END OF FAA-VENDOR SOP

Attachment J.8
BUSINESS DECLARATION

Tax Identification No.:

1. Name of Firm: _____

2. Address of Firm: _____

3. Telephone Number of Firm: _____

4. a. Name of Person Making Declaration _____

b. Telephone Number of Person Making Declaration _____

c. Position Held in the Company _____

5. Controlling Interest in Company ("X" all appropriate boxes)

a. Black American b. Hispanic American c. Native American d. Asian American

e. Other Minority f. Other
(Specify) _____ (Specify) _____

g. Female h. Male i. 8(a) Certified (Certification letter attached) j. Service Disabled Veteran Small Business

6. Is the person identified in Number 4 above, responsible for day-to-day management and policy decision making, including but not limited to financial and management decisions?

a. Yes b. No (If "NO," provide the name and telephone number of the person who has this authority.)

7. Nature of Business (Specify major services/products (NAIC)) _____

8. (a) Years the firm has been in business: _____ (b) No. of Employees _____

9. Type of Ownership: a. Sole Ownership b. Partnership

c. Other (Explain) _____

10. Gross receipts of the firm for the last three years:	a.1. Year	b.1. Gross	
	Ending: _____	Receipts _____	
a.2. Year	b.2. Gross	a.3. Year	b.3. Gross
Ending: _____	Receipts _____	Ending: _____	Receipts _____

11. Is the firm a small business? a. Yes b. No

***I DECLARE THAT THE FOREGOING STATEMENTS CONCERNING _____
ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, INFORMATION, AND
BELIEF. I AM AWARE THAT I AM SUBJECT TO CRIMINAL PROSECUTION UNDER THE
PROVISIONS OF 18 USCS 1001.***

12. a. Signature _____ b. Date: _____

c. Typed Name _____ d. Title: _____