

until each item of information has been completed on the form. Any question by the Contractor as to how to complete the work order form will be answered by the FMS.

5.3.1 CFC (Chlorofluorocarbons) Tracking Program. Comply with all ASHRAE and EPA Directives in regard to CFC management. Maintain an approved CFC tracking program for the purpose of required reporting and CFC inventories. A monthly report of CFC usage shall be required and furnished to the COR.

5.4 PARTS AND MATERIALS. The Government will provide all parts and materials to support work order requirements. When the Contractor determines that materials, parts, or supplies are required they shall provide the information to the appropriate FMS.

1. Vendor and/or Source
2. Part number and/or Description of item
3. Quality needed
4. Unit Cost

The Government may provide the part and/or supplies or request the Contractor to purchase the materials and be reimbursed as specified in the contract under a DIRECTIVE Program. The Contractor shall return excess materials and parts not used on the job, and place in storage at locations as directed by the FMS. Material and equipment deemed scrap with salvage value shall be disposed of in accordance with FAA Order, 4650.21C on FAA Form 4800-6, Report of Excess Property. All other materials and equipment classified as debris and as directed by the appropriate FMS shall be placed in building dumpsters.

5.5 CONTINGENCY PLANS. The Contractor shall provide the required support for the Aeronautical Center contingency plans as called for in Technical Exhibit 11: Contingency Plans.

5.6 HAZARDOUS MATERIAL HANDLING. The contractor shall develop an Environmental Management Program to ensure the proper tracking and handling of hazardous and universal waste that complies with all Federal, State and Local ordinances and regulations.

5.6.1 Work Description. The Contractor shall provide assistance as directed by the COR or FMS to Environmental and Safety Staff, AMP-100 in the transportation and handling of hazardous waste at the Aeronautical Center.

5.6.2 Transportation and Handling. The Contractor shall transport hazardous and universal waste to the appropriate site in accordance with an approved Environmental Management Program that complies with all Federal, State and Local ordinances and regulations. The contractor will be required in emergency situations directed by the COR or FMS to assist the Environmental and Safety Staff, AMP-100, in containment and clean up of spills.

5.6.3 Training Requirements. All Contractor personnel performing duties involving the management of hazardous waste material shall have received appropriate training prior to being assigned to such duties.

5.6.3.1 Mandatory training is as follows:

Forklift Operator

HAZCOM: Waste material may include solvents, fuels, acids, caustics, oils, etc. in accordance with 29 CFR 1912.1200.

HAZWOPER: Level 2 First Responder in accordance with 29 CFR 1910.120.

Hazardous Waste Generator Training in accordance with 40 CFR 265.16.

5.7 RADIO COMMUNICATION. The Government will supply the Contractor radios that are to be utilized in building operations. These hand-carried radios will interface with the CCMS control room and the Security Office.

5.8 BUILDING OPERATIONS (B.O.) AND SURVEILLANCE (S). To be performed as called for in the building operation instructions and Technical Exhibit 13, Central Control & Monitoring System (CCMS). The building operation instructions, and CCMS operations will be updated and changed by the Contractor whenever equipment is replaced, added or changed and operational consideration require changed HVAC or systems support. The Contractor shall start up and place in normal operation all equipment in buildings at the MMAC as directed by the COR. The Contractor shall shut down and leave in proper shutdown condition all equipment in buildings at the MMAC when so directed by the COR. All systems such as gas, electric, water, sewage, HVAC and fire sprinkler system in, connected to, or serving buildings or facilities are included as equipment to be operated under this contract. All operations shall maximize energy efficiency while maintaining building comfort.

5.8.1 Surveillance must be made of buildings heating, air conditioning, and auxiliary equipment at the MMAC continuously by the CCMS or Surveillance operator or both.

5.8.2 The surveillance shall be in accordance with the building operating manuals. These manuals shall be updated and changed by the Contractor and approved by the Government when equipment is added, replaced, removed, or operating requirements change. The CCMS operator will also provide surveillance on some buildings and equipment.

5.8.3 The starting, stopping, and operation of building equipment shall be in accordance with the building operating manual and the CCMS will also provide starting, stopping, and operation of some building equipment.

5.8.4 The operation checklist shall be performed the number of times as called for by each shift. The first shift is from 0000 through 0800, the second shift is from 0800 through 1600, and the third shift is 1600 through 2400. Equipment under CCMS control and surveillance shall be checked and recorded by the CCMS operator.

5.8.5 The other duties calling for housekeeping and reporting procedure shall be performed as called out in the building operation manual.

5.8.6 All buildings and structures require building operations surveillance. A list of buildings is in Technical Exhibit 2, Buildings and Antenna Sites at the MMAC.

5.8.6.1 The operation of the buildings shall be complete. It includes the operation of all the equipment listed in the Building Operation Manuals; however, it also includes operations of all

doors, windows, room thermostats, mixing boxes, exhaust fans, vents, hatches, openings, or any other appurtenances which affect the environmental conditions of the buildings. The equipment listed in these manuals is the equipment installed as of the date of the manual. It may have been changed since that date or it may be changed, modified, or added to, during the period of the contract. Copies of the building operations manual are on file at the Base Maintenance building. A copy will be issued to the Contractor.

5.9 ADDITIONAL DUTIES. In addition to the duties listed previously and in the Building Operation Manuals, the Contractor shall perform the following in conjunction with those already listed.

5.9.1 Observe established security requirements for locking of doors, notification of entering buildings, notification of exiting buildings, maintaining radio contact with the FAA security office, and other security regulations.

5.9.2 Start, stop, and adjust building equipment to operate within its capabilities and to obtain output desired from its operation.

5.9.3 Report to the CCMS operator any equipment that does not operate properly. This notification shall be made verbally within 5 minutes of its observation and confirmed in writing before the end of the shift. The written notification shall be at the CCMS control room at the beginning of each working day. The CCMS operator on duty shall confirm notification of non-operational equipment occurring during any shifts verbally with the FMS upon their arrival at the beginning of the next regular day shift.

5.9.4 Provide personnel to conduct equipment (and related utility plant) shutdown and startup before, during, and after equipment repair, replacement, servicing, and any other emergency.

5.9.5 Shut down equipment immediately when necessary to prevent damage, which would be caused by its continued operation.

5.9.6 Maintain building interior temperatures as specified by the operational manuals providing such limits fall within the capability of the equipment. All equipment and respective temperatures shall be operated within the scope of indoor air quality and energy management guidelines.

5.9.7 Make necessary adjustments to heating, ventilating, and air conditioning equipment when buildings are not occupied to effect energy saving as provided by the operating manuals.

5.9.8 Make adjustments to heating, ventilation, and air conditioning equipment to condition limited spaces and areas where Government employees might be working at night or on weekends/holidays and when severe weather or other activities require special attention.

5.9.9 Respond to trouble calls of improper temperature or other conditions resulting from equipment failure or improper operation. Make necessary adjustments or corrections if within the equipment capability or report the discrepancy immediately to the FMS.

5.9.10 Enter date, time of entry and exit, general condition of equipment, adjustments and other actions taken upon each visit to a building boiler room or equipment room/area where such logbooks are maintained.

5.9.11 Design and submit, for approval by the COR, Checklist Forms (CLF) for operation of each building or facility. The forms shall show, as a minimum, date, time of day, operator's time, items checked, readings recorded, adjustments made, notifications made, housekeeping performed and other items and remarks as necessary for the intended purpose. Insofar as possible these forms shall parallel the Operating Checkout List (OC-OL) included in the Operating Manual for each building and include any provisions for any changes in equipment that may have been omitted from this manual or any equipment additions or changes that may have been made after the manual was written. A master type form is suggested on which the particular items peculiar to each building would be typed. Entries shall be made on these forms in accordance with the checks/shift for each shift number (1, 2, or 3) as shown in the OC-OL. The forms shall be completed and presented to the FMS on a daily basis.

5.9.12 Performs minor lubrication, repairs and adjustments where specified by operation manuals. Adjusts pump and valve packing to stop or limit leakage, tighten nuts and bolts to prevent leakage; however, reports such actions to the FMS and does not do anything which might cause damage to the equipment.

5.9.13 Make anticipatory adjustments to doors, fresh air dampers, temperature controls and other equipment to prevent wind, rain, freezing, or other damage to building and facilities.

5.9.14 Maintain tags or labels on all major equipment listed as being: operable but out of service and give reason; or inoperable and give reason. These tags or labels shall also list dates of action and operator's name who took the action in addition to the use of lockout and tag out procedures.

5.9.15 In case of unscheduled power outages, the operators on duty immediately check to see if the emergency electric generators have started and are operating. If they are not operating the operators make prudent and timely attempts to start the generators and monitor their continued operation. If the generators will not start, the operators immediately notify the appropriate officials by established procedures.

5.9.16 The Contractor shall make reports as required to provide information on the work required on each piece of defective equipment. Reports may be requested on special projects, equipment, or critical incidents.

5.9.17 The Contractor may be required to make special reports on equipment, condition or status as required to support FAA operations. These reports will be of a special nature and infrequent.

5.10 SURVEILLANCE. Two surveillance operators shall be on duty during all hours other than 0800 to 1630 hours Monday through Saturday. Also, two surveillance operators shall be on duty 24 hours a day on Federal holidays unless otherwise directed by the COR. Surveillance operations include monitoring of buildings, utility systems, structures, mechanical and electrical equipment and systems, roads, streets, parking lots, exterior lighting, and other facilities of the Mike Monroney Aeronautical Center complex, for items of an emergency nature.

5.10.1 Report items of an emergency nature immediately upon discovery to the CCMS Operator.

5.10.2 The Contractor shall design and present a plan for making these emergency notifications. This plan shall be submitted by the Contractor to the COR for approval.

5.10.3 The intent of this specification is not to require any additional personnel above that required to operate the buildings; however, since these personnel will be continually on the premises, they are required to remain alert and perceptive and appropriately notify the proper agencies of any emergency condition that they might discover.

5.10.4 Day Time CCMS Surveillance Operator. One surveillance operators shall be on duty from 0800 to 1600 hours Monday through Friday, except for Federal Holidays unless otherwise directed by the COR. Surveillance operations to include starting and stopping all HVAC equipment, monitoring of buildings, utility systems, structures, mechanical and electrical equipment and systems at the Mike Monroney Aeronautical Center complex.

5.10.5 Examples of items requiring action includes but are not limited to, the following:

Forced entry to buildings	Excessive building system leaks
Presence of intruders	Excessive building structure leaks
Questionable occupancy	Power outages
Fire Gas leaks	Smoke
Excessive high temperatures	Escaping fumes
Severe weather conditions	

5.11 FAA Logistics Center. The Contractor shall provide all management, supervision and technicians necessary for the repair and preventative maintenance of Warehouse forklifts, scooters, and other types of Warehouse lifting equipment at Monroney Aeronautical Center and other leased facilities as directed by the COR. Additional lifting equipment and satellite shop offices may be added as directed by the COR. The equipment is located at the Mike Monroney Aeronautical Center, FAA LSF Warehouse building and leased facilities.

5.11.1 LSF Vehicle/Lifting Equipment To Be Maintained. The Contractor shall be responsible for complete repair and maintenance of the following equipment:

5.11.1.1	Forty-Nine (49) forklifts, chargers and batteries.
5.11.1.2	Twenty-five (25) picking platforms.
5.11.1.3	Thrity-nine (39) electrical scooters.
5.11.1.4	Three (3) high lifts work platforms.
5.11.1.5	Thirteen (13) walk behind lift forks.
5.11.1.6	One (1) powered pallet jack.
5.11.1.7	Sixteen (16) non-powered pallet jack.

5.11.2 LSF Warehouse Equipment. The Contractor shall be responsible for repair and maintenance of the following equipment. Equipment listed below must be responded to as a Priority One work request for trouble call. Additional automation equipment may be added as directed by the COR.

- 5.11.2.1 Eleven (11) inspack foam in-place stations.
- 5.11.2.2 Eight (8) automatic strapping machines.
- 5.11.2.3 Five (5) automatic pallet shrink-wrapping machines.
- 5.11.2.4 Ninety two (92) barcode scanners.
- 5.11.2.5 Sixty (60) wireless barcode scanners.
- 5.11.2.6 Fifty (50) had held computers scanners.
- 5.1.1.2.7 LSF Computer Room UPS.

5.11.3 Maintenance Requirement. All work shall be performed in accordance with the SOW, Section 5, Work Tasks. The COR, or his designated Facility Management Specialist (FMS), will determine acceptability of work.

5.12 GROUNDS MAINTENANCE SERVICES. The Contractor shall provide grounds maintenance services for the fertilizing, watering and spraying of lawns, trees, shrubs, flowers, and indoor plants, as well as the mowing of lawns, grading, filling and conditioning of areas required for lawns and the removal of cuttings and trash all of which is to constitute proper grounds maintenance. The Contractor shall also provide snow/ice and blizzard recovery services. (See Technical Exhibit 7: Grounds Maintenance Schedule with Technical Requirements.)

5.12.1 Lawns: Watering, fertilizing, and fine cutting. The Aeronautical Center grounds consist of approximately 35 acres of lawns to be watered, fertilized and fine cut, located as shown on the contract drawings. This includes curb edging and trimming next to trees, buildings and other objects.

5.12.2 Rough cutting. All grounds that are not maintained by fine cutting will require periodic rough cutting. No fertilizer or water is required of rough-cut acres.

5.12.3 Trees, shrubs, indoor plants, and flowers. The Aeronautical Center grounds contain a considerable amount of trees, shrubs, indoor plants, and flowers that are included under this contract. The Contractor shall maintain and replace as needed.

5.12.4 Future planning. The Contractor project manager shall consult with the COR concerning future planning, design, and maintenance of the grounds of the Aeronautical Center as needed.

5.12.5 Work Schedule. The work can be accomplished during regular working hours except as outlined below:

5.12.5.1 Safety of Aeronautical Center personnel and protection of private and Government property shall be given primary consideration at all times. For this reason, grounds maintenance operations that are likely to involve hazards to either shall be scheduled before 8:00 a.m. or after 4:30 p.m., Monday through Friday.

5.12.5.2 Sprinklers and/or sprinkling systems shall be operated from 5:00 p.m. until 7:00 a.m., Monday through Friday, and at any hour on Saturday and Sunday. Due to shift changes and other operational conditions, the COR may direct that watering to any area be stopped for a stated period.

5.12.5.3 All equipment used at night shall be properly lighted as required by Oklahoma State Law.

5.12.5.4 All slow-moving vehicles used at any hour on streets shall display the standard triangular slow-moving vehicle emblem.

5.12.6 Special Reports. The Contractor's Project Manager shall make special reports, studies, inspections, and attend such conferences and meetings in the capacity of technical advisor as requested in writing by the Government. Such meetings will be restricted to the Oklahoma City limits and no more than four per year. The Project Manager shall have knowledge of the latest developments in ground operations and reports on conferences and seminars that will provide improvements in the ground maintenance at the Aeronautical Center. The Contractor will provide all information required for special pesticide and herbicide reports.

5.12.7 Notification and Responsibility. The Contractor shall notify the appropriate FMS prior to excavation, spraying, fumigation, or any other operations affecting their property, health, or safety. The Contractor shall be responsible for any damages resulting from his failure to make such notifications. All dangerous areas of work shall be barricaded and marked with traffic flashers.

5.13 Flight Line Maintenance Support. The Contractor shall provide all management, supervision and technicians necessary for the repair and preventative maintenance of Aviation Systems Standards (AVN's) forklifts, scooters and flight line equipment. Additional equipment may be added as directed by the COR. The equipment is located at the Mike Monroney Aeronautical Center, Air Operations Area F, Hangars 8 and 9.

5.13.1 AVN Flight Line Equipment To Be Maintained. The Contractor shall be responsible for complete repair and maintenance of the following equipment. Additional equipment may be added as directed by the COR.

- 5.13.1.1 Eight (8) Tugs
- 5.13.1.2 Five (5) Forklifts
- 5.13.1.3 Sixteen (16) Scooters
- 5.13.1.4 Three (3) Flush Units
- 5.13.1.5 One (1) Portable Air Compressor
- 5.13.1.6 Two (2) Sweepers
- 5.13.1.7 Three (3) Scrubbers
- 5.13.1.8 Ten (10) Portable A.C Units
- 5.13.1.9 Three (3) Portable Vacuum Cleaners
- 5.13.1.10 Three (3) Cabin Pressure Units
- 5.13.1.11 Six (6) Power Units for Aircraft
- 5.13.1.12 Twelve (12) Fox cart AC/DC Power Units for Aircraft
- 5.13.1.13 Two (2) Hydraulic Test Units
- 5.13.1.14 One (1) CO2 Fill Unit
- 5.13.1.15 Three (3) N2 Carts
- 5.13.1.16 Four (4) Sky Jack Cranes
- 5.13.1.17 Two (2) Cranes
- 5.13.1.18 One (1) Boom Lift
- 5.13.1.19 One (1) Power Wahser

5.13.2 MMAC Building Emergency Generators. The Contractor shall be responsible for repair and preventive maintenance of the following equipment. Additional equipment may be added as directed by the COR. Technical Exhibit 14 identifies model, type, size and locations of emergency generators.

5.13.2.1 Fifteen (15) Diesel powered generators.

5.13.2.2 Fifteen (15) Natural Gas Powered Generators.

STATEMENT OF WORK

SECTION 6. APPLICABLE REGULATIONS AND MANUALS

6.1 APPLICABLE REGULATIONS AND MANUALS. Documents applicable to this SOW are listed below. The Contractor shall follow these documents during work performance. The Government will make available the listed publications that may be in the Base Maintenance Technical Library. Some items have been deleted and others added so this is not a complete listing but an example of the type information available. These documents shall be maintained by the Contractor.

6.2 FAA REGULATIONS.

- a. FAA Order 3900.19A, July 20, 1982, Occupational Safety.
- b. Aeronautical Center Order 3900.21E, August 17, 1990, Occupational Safety.

6.3 DEPARTMENT OF LABOR. Code of Federal Regulation Chapter 29, Part 1910, Occupational Safety and Health Standards (29 C.F.R. 1910).

6.4 MAINTENANCE, REPAIR, OPERATIONS, AND PARTS CATALOGUES, BOOKS, LISTS AND MANUALS.

ANF-1 Building - Operating Manual
ANF-2 Prints
AOS Prints, Mechanical Maintenance & Operations Manual
ARB - ARB & STB York Chillers (filed in STB)
ARB - Triplex Elevators
ARSR 1 Prints, Mechanical Maintenance & Operations Manual
ARSR 3, Prints, Mechanical Maintenance & Operations Manual
ARSR 4, Prints, Electrical and Mechanical O & M Manual
ARSR 7, Prints, Mechanical and O & M Manual
ASR 8, Prints, Mechanical and O & M Manual
ASR 9, O & M Electrical Manual
ASR 9, O & M HVAC Manual
AT, Trane A/C Unit (roof)
ATCBI, Prints, O & M Manual
BMGS, Prints, O & M Manual
Building 6, Prints, O & M Manual
CAMI, Computer Rm Mods Operations & Maintenance Manual
CAMI, Cooling Tower Controls
CAMI, Emergency Generator Information
CAMI, Hydronic Systems Operations & Maintenance Manual
CAMI, Low Temp Cooling Tower Book
CAMI, Submittal - Electrical - #22 Buss Duct Riser
ESS, Chiller replacement

ESS, Instruction Book – Cooling Tower - Pumps
 ESS, Replace cooling tower, O & G Manual
 Flight Inspection Building, Manual - Phase I - Renovation, Mech. & Maint. Manual
 Flight Inspection Building, O & M Manual - West Wing
 Flight Inspection Building, Submittal - Mechanical-Boiler-Control Replacement, also for ANF2, FS, ANF1 and AT buildings
 FPS 66, Prints, O & M Manual
 GNAS, Prints, O & M Manual
 Hanger 8 Building - O & M - Room 116
 Hanger 8 Building -Emergency light fixtures - Hanger 8, 9, 10
 Hanger 8 Building- Hanger 8 East Building
 Hanger 9 Building - Cooling Towers O & M Manual
 Headquarters Building - Auditorium Sound and Video O & M
 Headquarters Building - Chillers - Manual
 Headquarters Building - Electrical O & M
 Headquarters Building - Esco Elevators Phase II (3)
 Headquarters Building - Fire Alarm Manual
 Headquarters Building - O & M for Carrier Equipment, Also ANF2
 Headquarters Building - Operating & Maintenance Manual - Also for #B-2 Raised Floor
 Headquarters Building - Submittal - AHU in Cafeteria (See ANF-2 #1 Combined)
 LSTC, Prints, O & M Manual
 Registry Building, Prints, Mechanical and O & M Manual
 RMM, Prints, Mechanical, O & M Manual
 RMM –HVAC, Chiller, VAVs, Pumps, and Controls
 RMM – High Voltage Extension
 SSF, Prints, Mechanical, O & M Manual
 TDWR 1, Prints, Mechanical, O & M Manual
 TDWR 2, Prints, Mechanical, O & M Manual
 TPS, Prints, Electrical, Plumbing, O & M Manual
 TSF – Electrical, Mechanical, Plumbing, Fire Alarm O&M Manuals
 Industrial Waste Treatment Plant, Prints, Electrical, Plumbing, O & M Manual
 Miscellaneous:
 Warranty File
 Fire Alarm O & M with Wiring Diagram
 Quad Alpha user guide input module Modax 500A Radio Paging
 Multi-Purpose Building - Mechanical Manual
 Multi-Purpose Building - O & M Manual - Boiler Feed Water Sys. Chillers
 Multi-Purpose Building - Mechanical & Electrical detail - #148 Computer room
 Multi-Purpose Building - Installation of Cooling Supply - #148 Computer room
 RTF Building - Operating Manual
 RTF Building - O & M Manual - Room 9 Modifications
 Special Purpose Building - Mechanical Operations & Maintenance Manual
 Special Purpose Building - Fire Suppression Operations & Maintenance Manual
 Special Purpose Building - Electrical Operations & Maintenance Manual
 Systems Training Building – O & M Manual – Host Computer site

Systems Training Building - STB and ARB York Chillers
 Systems Training Building - HVAC Operations & Maintenance Manual
 Warehouse Building - Drinking Fountain Warranty - Area B
 Warehouse Building - Boiler Room - Water Treatment Modification
 Warehouse Building – Liebert Deluxe System (3) O&M Manuals
 Warehouse Building – Overhead Door Co. wiring diagrams for series ERL,
 EL,GH,FL,4RDB.
 Warehouse Building – AAF Dust Collectors Arestall model AR service manual

6.5 TECHNICAL LIBRARY INDEX (LOCATION: AUTOMATED WAREHOUSE)

LA120 User Guide (Digital)	comp. Room
LanTech "Q" series 300 stretch wrap machine maintenance manual	shop
Lan Tech Lan Wrapper "T" series Owners Guide	shop
LorTec Power Systems, Inc.	shop
Marsh Electric Tape Dispensing Machine Service and Parts Manual	shop
Raymond #1 PM Book	shop
Raymond #2 PM Book	shop
Raymond #3 PM Book	shop
Raymond #4 PM Book	shop
Raymond Installation/Operators Manual	shop
Raymond O/M Manual	shop
Raymond O/M Manual	shop
Raymond Parts Manual Part 1	shop
Raymond Parts Manual Part 2	shop
SPG 8050 Through 8072 Matrix Printers Service Manual	shop
Tandem Multi-Page Display Terminal T16/6530 O/M Manual	shop
Tandem Printer Option: 6530 Terminal Installation & Operation Guide	comp. room
Technical Specification Volume 1	shop
Technical Specification Volume 2	shop
Tekscan 7010 Terminal Technical Manual (Teklogix)	shop
Tekscan 8010 Terminal Technical Manual (Teklogix)	shop
<u>Warehouse Automation Manuals</u> (Property of Logistics Support Facility (LSF):	
Battery Handling System Parts & Service Manual Auto.Transfer Carriage Model ATC 30	
Better Pack 755 Electronic Tape Machine (Parts List)	
Black Box Corporation Code Operated Switch (4 port, 8 port 05-88 Service Manual)	
Clark Technical, Service, and Parts Manual	
Fairbanks Scales Instruction Manual 6200 Series Floor Scale Platform Model 23-6230B	
Fairbanks Scales Operating Manual Digital Indicator Model H90-5200	
Genesis Semi Automatic Poly Propylene Strapping Machine manual	
InstaPak Model 970 Troubleshooting Flow Charts	
InstaPak Model 970 Users Guide	

InstaPak Container Return Program
Intermec 3400 Bar Code Label Printer Maintenance Manual
Intermec 3400 Bar Code Label Printer Users Manual
Intermec 8640 Series Thermal Transfer Printer Manual
Intermec 9512/9550 Transaction Manager User's Manual
Intermec Data Communications Reference Manual

Warehouse Automation Manuals (continued)

Lantech LAN-Wrapper T-Series Owners Guide Model STPSD
Lantech Q Series 300 Stretch Wrap Machine Operators & Maintenance Manual
NDC Micro 70 Wire Guidance for OE-35 Order Selectors Repair & Parts Manual
Portec Pathfinder Maintenance Manual Book 1
Portec Pathfinder Maintenance Manual Book 2
Sealed Air Instapack 808/870 Foam Packing Systems Users Guide
Sealed Air Instapack Systems Service Manual Models 715, 750, 760 Systems
Sealed Air Recommendations for Safe Use & Handling of Instapak Foam-in-Place Chemicals
Sealed Air Versa Packer Operation & Maintenance Guide
Toledo 2096, 2196 Digital Scale Book, Technical Manual & Parts Catalog
Toledo 8510 Stainless Steel M-P Digital Indicator Tech Manual & Parts Catalog
Yale Models YTN/3YTN Battery Charger Operating & Maintenance Manual
Yale OS 030 BB and SS 030 BB Parts Manual 1468
Yale OS/SS 030 BB Maintenance Manual 1469

6.6 MANUALS: ELECTRIC/HEAT AND AIR (LOCATION: ELECTRICAL SHOP)

Carrier Hermetic Centrifugal Chiller O & M
Carrier Literature
Continental Boilers Service Manual
Honeywell Flame Guard Manual
Nalco Boiler Repair System Program
O & M CAMI, Heat and Air Units
O & M Iron Fireman Boilers
O & M Mechanical, CAMI and Base Maintenance
O & M Special Purpose Building-Mechanical
Single and Multi Stage Compressors - York service bulletins
Trane O & M Manual (chillers) Air Traffic
Warehouse Chiller Units
York Chillers, ARB, STB
York O & M Flight Standard Liquid Chiller
York O & M Hangar 8 Liquid Chiller
York Turbo Pak Liquid Chiller

6.7 TECHNICAL AND EQUIPMENT MANUALS (LOCATION: ELECTRONICS SHOP)

CCTV Source Incorporated
Dranetz Service - Universal Disturbance Analyzer
Johnson Control Technical and Operation Manual
Liebert Technical Manuals
VICON Technical Manual

6.8 TECHNICAL MANUALS (LOCATION: O & M CONTRACTOR'S OFFICE)

Asbestos in Buildings, Facilities, and Industry
Asbestos O & M Manual
Controlling ACM in Buildings
Toxicology Handbook

6.9 ONE SET OF BUILDING PRINTS FOR ELECTRICAL, MECHANICAL AND UTILITIES FOR LISTED BUILDINGS AND FACILITIES.

Academy Headquarters	Flight Inspection and Additions
Air Navigation Facilities No. 1 (ANF-1)	TSF Building
Air Navigation Facilities No. 2 (ANF-2)	GNAS Training Facility
Air Traffic Building	General Office Building
Altitude/Environmental Test Chamber: CAMI	Hangar 8
ARSR 1D	Hangar 9
ARSR 3	Hangar 10
ARSR 4	Hazardous Waste Storage Building
ASDE 3 Instrument Landing System	Headquarters Building
ASR 9 Mode-S	
ATCBI	Multi-Purpose Building (MPB)
Aviation Records Building	MPB, Computer Rm Circuits
Base Maintenance Building	RFI
Base Maintenance General Storage	Radar Antenna Lab
Building 6/Flight Standards	Radar Training Facility
Building K	Registry Building
Building L	Special Purpose Building
Child Care Center	Thomas P. Stafford Building
Civil Aeromedical Institute Building (CAMI)	Systems Training Building, Floor Plan
Emergency Lighting, ANF-1	Systems Training Building, Mech
Emergency Lighting, ANF-2	TSI Building
Emergency Lighting, Academy	Logistics Support Facility (LSF)
Emergency Lighting, Air Traffic	LSF (Mechanical)
Emergency Lighting, Flight Standards	TDWR 1
Environmental Support System Building	TDWR 2
VOR 700	MMAC Johnson Control Prints
VTD	MMAC Paging System Prints
MMAC Snow Removal Plan	MMAC Rusco Prints
MMAC CCTV Prints	MMAC Simplex Prints
MMAC Fire Extinguisher Locations	MMAC Utility Prints

TECHNICAL EXHIBIT 1

T1. PERFORMANCE REQUIREMENTS SUMMARY

T1.1 PURPOSE. The purpose of this exhibit is to list the contract requirements considered most critical to acceptable contract performance.

T1.1.1 A key to facility operations is the reaction time and effective modifications and repairs that are made to keep a facility in a condition to meet current functional requirements. These must be coordinated and effected to keep operational delays to a minimum. The effort of such facility support must be measured by the impact of any loss or delay to the operation the system supports. The Contractor must use every resource available, and the most professional workmanship, guidance, coordination, and supervision to complete work orders. The Government will prioritize all work.

T1.1.2 All work is subject to evaluation using quality assurance practices, principles and techniques. All unsatisfactory work will be corrected. Random sampling techniques will be in accordance with Military Standard 105D Sampling Techniques.

T1.2 QUALITY ASSURANCE PROCEDURES. The Government's primary quality assurance procedures are based on random sampling of contract performance. Contract performance will be monitored periodically (i.e., daily, weekly).

T1.3 CRITERIA FOR EVALUATION of Contractor performance is as follows:

T1.3.1 Performance of Work

- a. Timeliness/Responsiveness
- b. Quality of work produced
- c. Manpower utilization
- d. Materials utilization

T3.1.2 Project Management

- a. Management performance
- b. Staffing
- c. Subcontractor utilization and management

T3.1.3 Business Management

- a. **Business operations**
 1. Overall management
 2. Property control
 3. Reports and procedures

4. Contract compliance
5. Security

b. Procurement

1. Purchasing and subcontracting
2. Acquisition preference program

c. Personnel

1. Personnel administration
2. Labor relations
3. Equal employment opportunity

T3.1.4 Cost Control. The Contractor's control of cost is important and will be evaluated. Rating in this area will not be assigned relative importance weights as in the other three areas but will cause an adjustment (increase or decrease) in the rating derived from the other areas.

TABLE I

ADJECTIVE PERFORMANCE GRADE

ADJECTIVE PERFORMANCE GRADE	DESCRIPTION	RANGE OF PERFORMANCE POINTS
Excellent	The Contractor's performance exceeds Standard by a substantial margin. The monitor can cite few areas for improvement, all of which are minor.	96 – 100
Very Good	The Contractor's performance exceeds standard. Although there may be several areas for improvement, these are more than offset by better performance in other areas.	86 - 95
Good	The Contractor's performance is standard. Areas for improvement are approximately offset by better performance in other areas.	76 – 85
Fair	The Contractor's performance is less than standard. Although there are areas of good-or-better performance, these are more than offset by lower rated performance in other areas.	66 - 75
Poor	The Contractor's performance is less than standard by a substantial margin. The monitor can cite many areas for improvement, which are not offset by better performance in other areas. Less satisfactory performance would be unacceptable.	60 - 65
Unsatisfactory*	The Contractor's performance is below minimum acceptable standards. Results are inadequate and require prompt remedial action. Significant deficiencies.	Below 59

*Any factor/subfactor receiving a grade of unsatisfactory will be assigned zero performance points for purposes of calculating the award fee amount.

TABLE 2

AWARD FEE CONVERSION CHART

This chart is for use in converting weighted performance points into percentages of the available award fee pool.

Weighted Performance		Points Percentage of Available Award Fee	
Excellent	100	100.0	Percent
	99	100.0	
	98	100.0	
	97	100.0	
	96	100.0	
Very Good	95	97.5	
	94	95.0	
	93	92.5	
	92	90.0	
	91	87.5	
	90	85.0	
	89	82.5	
	88	80.0	
Good	87	77.5	
	86	75.0	
	85	72.5	
	84	70.0	
	83	67.5	
	82	65.0	
	81	62.5	
	80	60.0	
Fair	79	57.5	
	78	55.0	
	77	52.5	
	76	50.0	
	75	47.5	
	74	45.0	
	73	42.5	
	72	40.0	
Poor	71	37.5	
	70	35.0	
	69	32.5	
	68	30.0	
	67	27.5	
	66	25.0	
Poor	65	22.5	
	64	20.0	
	63	17.5	
	62	15.0	
	61	12.5	
	60	10.0	
	Below 59 is Unsatisfactory		

TECHNICAL EXHIBIT 2

T2. LIST OF BUILDINGS AND ANTENNA SITES AT THE MMAC

T2.1 BUILDINGS AND ANTENNA SITES.

<i>(AOS) Modular Administrative Building *</i>	<i>Headquarters Building*</i>
<i>Academy Headquarters Building*</i>	Industrial Waste Treatment Plant
<i>Air Navigation Facility (ANF-1) No. 1*</i>	ILS Training Facility
<i>Air Navigation Facility (ANF-2) No. 2*</i>	<i>Landing System Training Complex*</i>
<i>Air Traffic Building*</i>	Building (Mark 1D)
ARSR-1D Training Facility	Building (Mark 1E)
ARSR-3 Radar Test	Mark (Mark 1F)
ARSR-3 Tower Equipment Building	Mark 20 Annex
ARSR-4	Mark 20 Building
ASDE-3	Line Maintenance Building
ASR-7 Lab & Equipment Building	<i>Logistics Support Facility (LSF)*</i>
ASR-8 Training Lab	Material Storage Building
ASR-9 MODE-S	<i>Multi-Purpose Building*</i>
ATCBI Complex (four bldgs)	<i>Program Support Facility*</i>
<i>Aviation Records Building (ARB)*</i>	Radar Antenna Lab
<i>Base Maintenance Building*</i>	<i>Radar Training Facility (RTF)*</i>
Base Maintenance Storage	<i>Registry Building*</i>
Child Care Center	RFI Building
<i>Civil Aeromedical Institute (CAMI)*</i>	RTF UPS Battery Storage
Credit Union Building (Building K)	<i>Special Purpose Building*</i>
Digital Remote Switching Building	Storage Building (Building 50)
Double Wide Trailer	Storage Shed (Flight Line Maint. Shed)
EA Book Store (Building L)	Storage Shed (Flight Line Shed 1)
ESS Building	Storage Shed (Flight Line Shed 2)
<i>Flight Inspection Building*</i>	Storage Shed (Flight Line Shed 3)
<i>Flight Standards Building*</i>	Storage Shed (Flight Line Shed 4)
Fork Lift Station ½	<i>Systems Support Facility*</i>
FPS-66 Trailer	<i>Systems Training Annex *</i>
General Office Building	<i>Systems Training Building*</i>
<i>GNAS Building*</i>	<i>TDWR-1*</i>
Grounds Maintenance Building	<i>TDWR-2 Building*</i>
Guard Stations (north/south)	<i>Technical Support Facility*</i>
<i>Hangar 8*</i>	<i>Thomas P. Stafford Building*</i>
<i>Hangar 9*</i>	TSI Lab
Hangar 10	VOR 700 Building
Hazardous Waste Storage Facility	<i>VOR/TACAN/DME Training Facility*</i>

**Indicates CCMS Control. All buildings receive surveillance. Aeronautical Center maps may be obtained on request*

T2.2 The FAA occupied buildings at the MMAC shown in this exhibit are approximately 3,000,000 gross square feet. The land area is approximately 1,200 acres.

T2.3 Off-site facilities leased to support the Aeronautical Center will be identified by the COR.

TECHNICAL EXHIBIT 3

T3. FACILITIES FOR CONTRACTOR USE

<u>BUILDING AVAILABLE</u>	<u>TYPE AREA</u>	<u>APPROXIMATE SQUARE FEET</u>
Base Maintenance	Office & CCMS Shop & Shed	500 11,000
Warehouse Maintenance Area	Office	5,000
Grounds Maintenance	Office, Shop & Shed	15,000
Industrial Waste Treatment Plant	Waste Treatment	5,000

The Government will furnish water, heat, electricity, sewage refuse services, and other utilities to the Contractor.

TECHNICAL EXHIBIT 4

T4. GOVERNMENT-FURNISHED EQUIPMENT

T4.1 All equipment, in the shop area furnished to the Contractor, which is fixed to the building is assigned for the Contractor's use. All non-fixed Government equipment will be issued to the Contractor as Government furnished equipment. See Attachment 1 to Technical Exhibit 4.

T4.2 The Contractor will be directed to purchase, lease, or rent tools and/or equipment not available but required for project completions. The cost of purchase, rental, and/or lease will be approved by the COR for the length of time required. In the case of purchase the equipment and/or tool becomes Government property and will be placed on appropriate records and hand receipt(s).

T4.3 The equipment listed on Attachment 1 will be issued to the Contractor. Items may be deleted or added throughout the term of the contract. The Contractor shall be accountable for equipment issued under this contract.

TECHNICAL EXHIBIT 5

T5. OBJECTIVE STANDARDS

T5.1 THESE SPECIFICATIONS DEFINE THE QUALITY of maintenance, repair, and modification work to be accomplished under this contract. Where a Government specification is not directed, the Contractor shall perform all work to meet customs, standards and practices of the trade.

T5.2 PROTECTION OF PROPERTY. The Contractor shall protect all existing work that is to remain in place and shall replace or repair any damage occurring to existing facilities, equipment, buildings, and grounds due to the Contractor's work or actions.

T5.3 FAA OPERATIONS. The Contractor shall consult with the Government and shall coordinate assigned work in such a manner as to interfere as little as possible with normal functions of the MMAC. The Contractor shall also coordinate assigned work with other Contractors performing work in and around the worksite and building.

T5.4 OTHER SPECIFICATIONS. When reference is made to specifications, such as Federal Specifications, American Society for Testing Materials (ASTM) or American Association of State Highway Officials (AASHO), or others, the latest edition shall be used.

T5.5 "AS-BUILT" DRAWINGS. The Contractor shall redline, update, and return the drawings of the work performed to the FMS.

T5.6 CONTRACTOR CLEANUP. All work areas shall be cleaned after a project is completed.

T5.7 NATIONAL ELECTRICAL CODE. All electrical installation shall fully comply with the latest published requirements of the National Electrical Code.

T5.8 DUCT WORK. All heating, air-conditioning, and ventilation ductwork shall be in accordance with Sheet Metal and Air Conditioning Contractors National Association (SMACNA) manual and requirements.

T5.9 SHOP EQUIPMENT. Shop equipment shall be maintained in accordance with the manufacturer's instructions.

T5.10 WELDING. All welding shall be done by employees certified by the American Welding Society, "Standard Qualifications Procedure," to perform the type work required. The equipment shall be of a type (heli-arc, gas, and electric) that will produce proper and satisfactory welds. Joint surfaces shall be free from fins and tears. Finish members shall be true-to-line and free from twists, bends, and open joints. The technique of welding employed, the appearance and quality of welds made, and the methods of correcting defective work shall conform to the requirements of the American Society of Mechanical Engineers, boiler and

Pressure Vessel Code, Section IX, Welding and Brazing Qualifications. No welding will be performed without an approved welding permit as called for in Technical Exhibit 5, Attachment 1.

T5.11 CONTINGENCY PLANS. The Contractor shall provide support for the "FAA Emergency Readiness Plan" as called for in Technical Exhibit 11.

TECHNICAL EXHIBIT 6

T6. HISTORICAL WORKLOAD

T6.1 THE HISTORICAL WORKLOAD FOR WORK REQUEST FOR TROUBLE CALL, OPERATIONAL, SUPPORT AND PM ARE LISTED TO DENOTE THE SCOPE OF WORK FOR FY-02, FY-03, FY-04 and FY-05.

	FY-02	FY-03	FY-04	FY-05
	Total Work Request			
Work Request for Trouble Call	8204	8075	7601	7545
Work Request for Operational	389	449	450	364
Work Request for Support	557	520	499	393
Work Request for Preventive Maintenance	10,622	10,201	10,044	*19,293

T.6.2 Total work request for trouble, operational, support and preventive maintenance craft hours are available for review at the Base Maintenance Building.

* Preventive Maintenance task under the new PM Program.

TECHNICAL EXHIBIT 7

T7. GROUNDS MAINTENANCE SCHEDULE WITH TECHNICAL REQUIREMENTS

T7.1 MOWING, including edging and sweeping, fine cut areas. Rotary mowers with rear discharge may be used on fine cut areas. Under no circumstances is a Flail Mower to be used on fine cut areas. Rotary blades are to be sharpened to insure a smooth cut. Before a fine cut area is to be mowed, it shall be policed to insure that the area is free from objects that could be struck by mowers. Each mowing operation is to include mowing, trimming, and removal of all clippings to reflect an appearance suitable for a public facility. These operations are to be done consecutively and simultaneously with each area, as noted on the drawings, completed as a project. All grass clippings are to be removed from the sidewalks and streets, and shall not be left overnight. Clippings shall not be swept onto the turf. All sidewalks, curbs and other concrete edges shall be edged and trimmed with a mechanical type edger in conjunction with each mowing. Soil sterilization as approved by the COR may be used around buildings and fence lines. All cuttings are to be removed from fine cut areas in conjunction with each mowing.

T7.2 MOWING, rough-cut. Rough cut mowing shall be performed on such grounds that are not programmed to be fertilized, watered and fine cut. Whirlwind or sickle bar type mowers may be used for this purpose. Tractor powered whirlwind mowers shall be equipped with "Chain Main" protective guards. The Contractor shall keep litter removed from the rough-cut areas.

T7.3 WATERING fine cut areas. Areas shown as fine cut on the drawings shall receive water as ordered by the COR. All watering operations are to be continuously monitored to prevent water from striking buildings, parked vehicles, and streets, to prevent excessive ground penetration adjacent to buildings and to prevent any damage that might result from this operation. The Contractor shall prepare a watering schedule for approval by the COR before actual application is made. The Contractor shall monitor and repair and maintain the existing underground sprinkler system, keeping the system in good repair and operating condition at all times. The sprinkler system is to be purged with an air compressor before freezing weather.

T7.4 GENERAL MAINTENANCE, including but not restricted to fertilizing, mulching, and watering of (1) trees, outdoor shrubbery, perennial and annual growth plants located in beds and planters, (2) trees and shrubs not located in beds, and (3) indoor plants and planters.

T7.4.1 The Contractor shall provide services to care for all indoor plants and shall replace such plants in the event of damage, loss, or if growth eliminates their use for the intended decorative effect.

T7.4.2 The trees, shrubs, flowers, indoor plants, and planter boxes shall be fertilized in accordance with standard practices for proper growth and health of the plants and as approved by the COR. The soil in the planter boxes shall be fertilized and rejuvenated as required for proper growth and health of plants. Planter boxes that contain perennial shrubs will be fertilized as needed. All trees, flowers, shrubs, indoor plants, and lawns shall be sprayed in accordance with accepted practices for the

necessary control of plant fungus and insects. Neutralizing cleaning solution shall be used on all equipment used to spray both herbicides and insecticides.

T7.4.3 The loss of any tree, evergreen shrubs, or perennial plants due to disease, insects, drought, or other causes shall require replacement with a like species. Any proposed substitution shall be approved in writing prior to planting. Trees shall be pruned, trimmed, or shaped as required, fertilized and sprayed. An approved tree maintenance program shall be followed.

T7.4.4 The Contractor shall keep all crushed rock areas at the Aeronautical Center free of all vegetation, trash, and debris.

T7.5 FERTILIZING, fine cut areas.

T7.5.1 The Contractor shall provide for application of fertilizer from April through August on all fine cut areas as need and coordinated with the COR.

T7.5.2 The Contractor shall replace any grass damaged by fertilizer imbalance. When requested, the Contractor shall take soil samples from the grounds and have them tested by a certified testing laboratory.

T7.6 WEED, CRAB GRASS, AND DISEASE CONTROL, fine cut areas (Pre-emergent treatment and Post-emergent treatment). The Contractor shall perform treatment for broadleaf and narrow leaf (grassy) weed control on fine cut areas as ordered. Precautions shall be taken to insure that there is no discoloring of the grass or damage to other plants. In the fall, a pre-emergent is to be applied, followed in the early spring with a non-selective non-soil sterilent post-emergent. If weeds appear after verticutting and top dressing, a post emergent is to be applied for broadleaf weeds. The selective post-emergent is to be repeated if necessary. The pre-emergent shall be applied in a granulated form. The post-emergent shall be applied with a spray boom and pump calibrated to receive even rates of distribution. A record shall be kept of consumption to insure proper rates. Rates of application for these chemicals are not specified but they must be sufficient to obtain control above 95% for any given square yard taken as a test area for determination of effectiveness. The Contractor shall coordinate scheduling of fall and spring treatment with the COR, to assure that the same areas that receive fall treatment will also be followed with the specified spring treatment. Post-emergent herbicides are to be applied after crab grass has germinated. Air temperature is to be 80 degrees F. or higher. Weed control in turf areas will be accomplished in accordance with in Oklahoma Extension Fact Sheet #2652 as issued in cooperation with the U.S. Department of Agriculture. The type of turf, weed, herbicide, rate of application and suggested time of application are to be followed. Treatment will be provided April through October for the control of all types of weeds in turf areas.

T7.7 WEED AND GRASS CONTROL, graveled areas. The Contractor shall treat crushed rock areas at the Aeronautical Center with soil sterilent as requested by the COR. The treatment shall not stain or discolor the rock, be corrosive to materials, or toxic to humans or animals. The materials used in this treatment shall be approved by the COR, prior to its use. All areas shall be treated except those inside fenced transformer vaults serving the buildings. The transformer stations serving the electrical mechanical cable field shall be treated as necessary and when requested. Areas treated under this service must remain free of all plant growth for one year or be retreated as necessary for this purpose.

T7.8 WEED AND GRASS REMOVAL. Weeds and grass may need to be removed from certain areas for the protection of Government property. This work will be accomplished when authorized by the COR. This requires application of an approved post-emergent non-selective weed and grass killer that is not conducted by plants and that deactivates on contact with soil. It shall be used in areas where soil sterilant may cause damage to other plants. The Contractor shall cut and remove large weeds and grass before the chemical is applied.

T7.9 GRASS REPLACEMENT (Stolonization, Sodding, Seeding). When ordered by the COR, the Contractor shall repair or replace lawns that have been damaged as a result of conversion of use by new construction, by repair of utility lines, or by other causes. These areas shall be disked, graded, roto-tilled, stolonized, sodded or seeded, as required and fertilized and watered in accordance with accepted practices until such times as that portion of the grounds can be accepted under the regular maintenance of lawns as set out above. This includes shaded areas where insufficient sunlight prevents Bermuda grass from growing. These areas shall be seeded with Kentucky 31 Fescue or with the latest recommended seed by the Oklahoma State University Agronomy Department.

T7.10 IRRIGATION HEAD REPAIR/REPLACEMENT. Government owned irrigation heads shall be repaired or replaced as necessary to maintain a completely operative condition.

T7.11 PIPING REPLACEMENT, with fittings 1/2" to 3" inclusive. ABS pipe is not to be used or reused if removed from existing system. All new pipe and fittings shall be PVC schedule 40, Class 200. All ditches shall be cushioned with two inches of masonry grade sand. All pipes shall be covered with four inches of masonry grade sand before backfilling. Backfill shall consist of approved treated topsoil to within four inches of finish grade. Finished grade shall be obtained with replaced turf and top dressing.

T7.12 GATE VALVE REPAIR, or replacement, 3/4" to 3" inclusive. Valve shall be repaired to a completely operative (like new) condition or replaced with a new valve when necessary and ordered by the COR. Backfill and finished grading shall be accomplished in accordance with that specified in Section C, paragraph 12.

T7.13 SNOW AND ICE REMOVAL. During winter months the Contractor shall remove all snow and ice from sidewalks, which may accumulate during the day. Snow and ice removal crews must be on the grounds no later than 3:00 a.m. for removal of snow and ice that forms or accumulates during the night. Walkways and building entrances shall be cleared by no later than 6:00 a.m. Rubber blades shall be used on snowplows. The wheel spacing on snowplows shall not exceed the width of the sidewalk. The Contractor shall spread masonry sand on the areas of sidewalks that are dangerously slick using a sand spreader for even distribution. The Contractor shall supply and spread a sufficient amount of calcium chloride or approved equal, to the Aeronautical Center sidewalks as required to keep walks and entrances free of ice. Additional chemical application shall be provided as required. The crews shall remain on the grounds until 4:30 p.m. or as approved by the COR. De-icing material must not kill grass or harm concrete.

7.14 BLIZZARD RECOVERY.

T7.14.1 When ordered by the COR, the Contractor shall remove snow and ice from parking lots, paved storage areas, docks, drives, and other designated areas as required for the operation of the Aeronautical Center. The Contractor shall make available and operate equipment as necessary to accomplish snow removal. The FAA will provide the Contractor with a Blizzard Recovery Plan, which will show the priority of operations. The plan will be in written form and will include a drawing with sequences of actions required. This plan may be changed due to operations consideration.

T7.14.2 The Contractor shall provide a truck and self-powered utility spreader equal to Model "P" Highway Equipment Company as part of the hot sand application. The hot sand will be spread by the unit using a controlled variable width.

T7.15 SNOW FENCE. Contractor shall install, remove and repair Government-furnished snow fence as required for snow drift control in parking and other areas of the Aeronautical Center. Locations for installation of the fence will be furnished at the appropriate time by the COR. Government-furnished material will consist of sufficient snow fence in 50-foot lengths and 6 feet, 1.12 pound/foot steel posts. Material such as tie wire, braces, anchors and guy wire necessary to support and hold fence up right in 75 mile per hour winds shall also be furnished by the Government. The Contractor shall pick up the Government-furnished material from Government controlled storage areas and replace material after all requirements are complete. Fence shall be installed in straight lines in a neat workmanlike manner.

T7.16 GROUNDS CLEAN UP.

T7.16.1 The Contractor shall keep all exterior areas of the Aeronautical Center clean and free from wastepaper and other litter at all times. This shall include removing tree leaves and other litter from exterior basement stairwells (including boiler room entrances) and the Multi-Purpose inner courtyard. Drains shall be free of trash and operative at all times. Weeds and grass shall be removed and not permitted to grow in cracks, joints, and holes of all paved areas at the Aeronautical Center. A soil sterilent is not acceptable for this purpose because it may damage trees, grass, and other plants.

T7.16.2 All discarded wooden shipping pallets shall be picked up daily and disposed of in empty in trash containers located at the Aeronautical Center.

T7.16.3 Remove bird droppings, mud, dirt, or any other litter from sidewalks as necessary. Remove tree limbs and any other plant growth as necessary to maintain free, safe passage on sidewalks and building entrances and to facilitate safe vision for drivers of vehicles at street intersections and parking lot access and interior passage at all times. All tree limbs, grass trimmings, and other debris generated by performance of grounds maintenance work shall be removed and hauled by the Contractor off the Aeronautical Center property. Inspection and work by the Contractor on the grounds clean up service shall be performed daily, Monday through Friday.

T7.17 CLEAN STORM SEWER CATCH BASINS. The Contractor shall remove all trash and other debris from inside storm sewer and drainage catch basins when required for proper flow and requested by the COR.

T7.18 TREES, replacement as needed. The Contractor shall replace trees that are damaged by wind or natural causes, damaged by unknown causes such as unreported vehicular contact or vandalism that need to be removed because of age or excessive size or other reason.

T7.19 SHRUBS, replacement as needed. The Contractor shall replace shrubs for any of the reasons stated above. Planting shall be done in accordance with the best acceptable methods and the Contractor shall be responsible for the continued life, growth and health of each new shrub.

T7.20 VERTICUTTING, fine cut areas. Verticutting is to be performed on the fine cut areas when requested by the COR. Work shall be done during a period after the first of January and prior to the first of June unless otherwise directed or approved by the COR. Verticutting equipment shall be designed for the intended purpose. Complete verticutting operation shall consist of a minimum of two passes over entire area with verticutting equipment. Each pass shall be perpendicular to the other. The entire area shall be swept clean of all thatch, trash, and debris following each pass of the verticutting equipment.

T7.21 MMAC Perimeter Security Fencing. The contractor shall inspect and make all repairs to perimeter security fencing. All security fencing shall be maintained in accordance with FAA Order 1600.69B, Section 2. Security fence lines with graveled areas to prevent wash outs shall be kept free of all vegetation, debris and trash. The contractor shall ensure that the 20-foot clean zone is maintained free of all trees, shrubs, debris, and trash and mowed by either fine or rough cutting.

TECHNICAL EXHIBIT 8

T8. MODIFICATION - WORK REQUEST SUPPORT

T8.1 WORK ORDER REQUEST. The Contractor will be issued Work Request for Support for modifications to buildings, equipment, facilities, and systems at the Aeronautical Center. Prior to issue to the Contractor, the work request will be issued a number that will be used to identify and control the work. The work required will be outlined, along with standards, specifications, and drawings, to identify the quality and scope of work. An estimate of the labor and materials will be provided prior to the work request being issued. The scope of work cannot be changed unless approved by a FMS, in which case the labor estimate will be adjusted for the change. No modification work is to be performed by the Contractor unless covered by a valid work request.

T8.1.1 All modification work request issued shall contain, by an attachment to the work request, total hours by craft to be utilized for each function in the Contractor's performance of a work request. These hours will be an estimate by skills (mechanical, electrical, carpentry, paint, and miscellaneous labor) utilizing the Means Man-hours Standards estimating publications as a baseline minimum estimate when applicable. Estimates will be made by qualified estimators based on their own experience and expertise, and taking into consideration special conditions and other factors that must be included to make a reasonable man-hour estimate in conjunction with the Means Man-hours Standards publications. All materials lists for each work order shall also be attached.

T8.1.2 Reference estimate books: Means Man-hour Standards System, and books published by R. S. Means Company.

T8.2 MATERIALS. Government-furnished materials will be issued at different locations at the Aeronautical Center. The Contractor shall transport the materials to the work site. After the work order is completed, the Contractor shall return all excess materials to the Government, and the excess shall be placed at different locations at the Aeronautical Center as directed by the FMS.

T8.3 START AND COMPLETION TIMES. Unless otherwise noted on the work request, the Contractor shall start work on a work request to complete the onsite work by 1630 on the completion date specified on the work order.

T8.4 WORK ORDER INFORMATION BY CONTRACTOR. The Contractor shall return the original work request form within three (3) workdays after the onsite work is completed with the following listed information:

- a. Total craft hours used, broken down by each craft.
- b. Complete listing of materials used.
- c. Excess materials to go to storage.
- d. Date and time onsite work completed.
- e. Any special information regarding the work or problems encountered.

All entries on the original work request form made by the Contractor shall be in ink and shall be signed by the Contractor's employee making the entry. No erasures shall be made on the work request form. Any necessary corrections shall be made by drawing a line through the incorrect entry. In the event the Contractor does not comply with this paragraph, the Contractor's performance of the work will be considered unsatisfactory. The information provided by the Contractor is utilized to charge cost centers for work order projects.

T8.5 WORK REQUEST FOR SUPPORT. See Attachment 1 to Technical Exhibit 8.

ATTACHMENT ONE

ARCHIBUS/FM

Work Requests



Work Request Code:

Requestor:

Phone:

Division:

Department:

Brig - Floor - Room:

Location:

Primary Trade:

Equipment Code:

Date Requested:

Time Requested:

Date To Perform:

Time To Perform:

Est. Completion Date:

Date Completed:

Activity Project Code:

Activity Log:

Priority:

Current Status:

Problem Type:

Work Request Type:

O&M

Problem Description:

Completed:

Yes No

Craftsperson's Notes:

Materials Used:

Emp. Name:

Trade:

Hours:

Date:

TECHNICAL EXHIBIT 9

T9. WORK REQUEST FOR OPERATIONAL

T9.1 THE CONTRACTOR WILL BE ISSUED AN WORK REQUEST FOR OPERATIONAL for the maintenance and repair of buildings, equipment, facilities, and systems at the Aeronautical Center. Prior to issue to the Contractor, the work order will be issued a number that will be used to identify and control the work request. The work required will be outlined, along with standards, specifications, drawings, and sketches to denote the quality and scope of work when applicable. The project shall be completed by the date listed on the work request. The scope of work of the work request cannot be changed unless approved by the FMS. No maintenance and repair work is to be performed by the Contractor unless covered by a valid work request. When the work called for is completed, the original work order shall be returned to the FMS.

T9.1.1 All operational work request issued will contain, by an attachment to the work request total hours by craft to be utilized for each function in the Contractor's performance of the work. These hours will be estimated by skills (mechanical, electrical, carpentry, paint, and miscellaneous labor) utilizing the Means Man-hours Standards estimating publications as a baseline minimum estimate when applicable. Estimates will be made by qualified estimators based on their own experience and expertise, and taking into consideration special conditions and other factors that must be included to make a reasonable man-hour estimate in conjunction with the Means Man-hours Standards publications. All materials lists for each work order shall also be attached.

T9.2 MATERIALS. Government furnished materials will be issued at different locations at the Aeronautical Center. The Contractor shall transport the materials to the work site. After the work request is completed, the Contractor shall return the excess to storage at various locations as directed by the FMS.

T9.3 START AND COMPLETION TIMES. Unless otherwise noted on the work request, the Contractor shall start work on an Work Request for Operational to complete the onsite work by 1630 hours on the completion date specified on the work request.

T9.4 WORK REQUEST INFORMATION BY CONTRACTOR. The Contractor shall return the original work request form within 3 workdays after the onsite work is completed with the following listed information:

- a. Total craft hours used, broken down by each craft.
- b. Complete listing of materials used.
- c. Excess materials to go to storage.
- d. Date and time onsite work completed.
- e. Any special information regarding the work or problems encountered.

All entries on the original work request form made by the Contractor shall be in ink and shall be signed by the Contractor's employee making the entry. No erasures shall be made on the work request form. Any necessary corrections shall be made by drawing a line through the incorrect entry. In the event the Contractor does not comply with this paragraph, the Contractor's performance of the work order will be considered unsatisfactory. The information provided by the Contractor is utilized to charge cost centers for work order projects.

T9.5 WORK REQUEST FOR OPERATIONAL. See Attachment 1 to Technical Exhibit 9.

ATTACHMENT ONE

ARCHIBUS/FM

Work Requests



Work Request Code:

Requestor: _____ **Phone:** _____ **Division:** _____ **Department:** _____

Bldg - Floor - Room: _____ **Location:** _____

Primary Trade: _____ **Equipment Code:** _____

Date Requested: _____	Time Requested: _____
Date To Perform: _____	Time To Perform: _____
Est. Completion Date: _____	Date Completed: _____

Activity Project Code: _____ **Activity Log:** _____

Priority: _____ **Current Status:** _____

Problem Type: _____ **Work Request Type:** OP

Problem Description: _____ **Completed:** Yes No

Craftsperson's Notes: _____

Materials Used: _____

Emp. Name: _____	Trade: _____	Hours: _____	Date: _____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

TECHNICAL EXHIBIT 10

T10. WORK REQUEST FOR TROUBLE CALL

T10.1 THE CONTRACTOR WILL BE ISSUED A WORK REQUEST TROUBLE CALL for the repair and adjustment of fixtures, buildings, equipment, systems, and facilities at the Aeronautical Center. Prior to issue to the Contractor, the work order will be issued a number that will be used to identify and control the work request.

T10.2 MATERIALS. Government furnished materials may be issued at different locations. The Contractor will transport the material to the work site. After the work order is completed, all excess material shall be placed in storage at different locations by the Contractor as directed by the FMS.

T10.3 TIME OF WORK. Work request, work shall be performed from 0800 to 1630 hours, Monday through Friday. No work will be done on weekends or Federal holidays, except in emergencies and/or directed by the appropriate FMS. The Contractor shall start work without any delay on P-1 trouble calls and continue work as feasible until the problem is resolved and/ or corrected and as directed by appropriate FMS.

T10.4 START AND COMPLETION TIMES. Routine work request for trouble calls will be completed by the Contractor and return to the government by 16:30 on the fourth day of work. The first day of issue from the Government will not count as part of the work request time line. The Contractor may convert trouble calls to Work Request for Operationals with approval and coordinated with the appropriate FMS.

T10.5 WORK ORDER INFORMATION BY CONTRACTOR. The Contractor shall return the original work request for trouble call back to the government is completed with the following listed information:

- a. Total craft hours used, broken down by each craft.
- b. Complete listing of materials used.
- c. Excess materials to go to storage.
- d. Date and time onsite work completed.
- e. Any special information or problems the Contractor encountered.

All entries on the original work request form made by the Contractor shall be in ink and shall be signed by the Contractor's employee making the entry. No erasures shall be made on the work request form. Any necessary corrections shall be made by drawing a line through the incorrect entry and the correct entry made above or beside the incorrect entry. In the event the Contractor does not comply with this paragraph, the Contractor's performance of the work will be considered unsatisfactory. The information provided by the Contractor is utilized to charge cost centers for each work request. All information recorded will be done in a clear, concise and legible manor.

T10.6 TROUBLE CALL WORK ORDERS. If materials are required to perform the work request for trouble calls that cannot be issued onsite, the FMS shall be advised without delay. A work request for operational will be issued and materials can be obtained by the government or the

Contractor as directed. Start and stop times of work due to need for materials will be noted on the work request.

T10.7 WORK REQUEST FOR TROUBLE CALL WORK. See Attachment 1 to Technical Exhibit 10.

ATTACHMENT ONE

ARCHIBUS/FM

Work Requests



Work Request Code:

Requestor: Phone: 405 685-0520 Division: Department:

Blidg - Floor - Room: Location:

Primary Trade: Equipment Code:

Date Requested:	Time Requested:
Date To Perform:	Time To Perform:
Est. Completion Date:	Date Completed:

Activity Project Code:

Activity Log:

Priority:

Current Status:

Problem Type:

Work Request Type: TC

Problem Description:

Completed: Yes No

Craftsperson's Notes:

Materials Used:

Emp. Name:

Trade:

Hours:

Date:

TECHNICAL EXHIBIT 11

T11. CONTINGENCY PLANS

T11.1 The Contractor shall provide support to the Aeronautical Center operations for the "Federal Aviation Administration (FAA) Emergency Readiness Plan." This includes drills and exercises of the plan.

T11.2 The "FAA Emergency Readiness Plan" is in support of the Department of Transportation (DOT) and Department of Defense (DOD) in time of war, national emergencies, and major disasters. The Contractor's responsibilities in support of this plan are listed.

T11.2.1 Provide four personnel to augment the Aeronautical Center Emergency Operating Facility. A Facility Management Specialist (FMS) will serve as a member of the Emergency Operating Facility Staff, and act as the liaison between the staff and the Contractor.

T11.2.2 Provide six personnel to serve as the Emergency Readiness Light-Duty Rescue Team.

T11.2.3 Provide a supervisor for 24-hour coverage to provide over-sight of Contractor's employees. Such individual shall be familiar with the FAA Emergency Readiness Levels.

T11.2.4 Provide personnel to conduct utility and building equipment shutdown and startup during and after an emergency.

T11.2.5 In the event of a bomb threat, the Contractor shall provide personnel to search all Contractor assigned space including offices, shops, storage areas, compounds, equipment/ boiler rooms, pipe chases, areas of responsibility in the FAALC Warehouse building, and other areas identified by the COR.

TECHNICAL EXHIBIT 12

T12. REPORTS

T12.1 The Contractor shall make reports as required to provide information on the work performed on each piece of equipment, including materials, employee hours, and parts required. This will normally be done on the work order form, but may be requested on special projects, equipment or critical incidents.

T12.2 The Contractor shall provide complete mileage/hour readings on all vehicles provided by the Government. This report shall be made each month.

T12.3 The Contractor is required to make daily and special reports on equipment, condition or status as required to support FAA operations.

T12.4 A complete report shall be furnished for all individuals performing work for the Contractor at the MMAC under this contract. The listing shall be by name, classification, project on which work performed, if work order - the work order number and number of hours worked, starting times and ending times of work during the 24 hours.

T12.5 The Contractor shall provide a daily status report on all individual craft and multi-craft support work orders by work order number, estimated man-hours, man-hours used, scheduled completion date, status of work orders, and necessary comments.

T12.6 The Contractor shall provide a weekly status report on all operational work orders by work order number, building, brief description of task, issued date, status of work order, scheduled completion date and necessary comments.

T12.7 The Contractor shall provide a daily status report on all trouble call work orders by work order number, building, brief description of task, requestor, status of work order and necessary comments.

T12.8 The Contractor shall provide a Water Treatment Report on all treated systems weekly to the FMS.

TECHNICAL EXHIBIT 13

T13. CENTRAL CONTROL AND MONITORING SYSTEM (CCMS)

T13.1 SCOPE OF WORK. The Contractor shall provide necessary management, supervision, labor, material, tools and test equipment to accomplish the following with regard to the CCMS and auxiliary systems defined herein:

- a. Inspection
- b. Calibration
- c. Scheduled maintenance
- d. Non-destructive base line testing
- e. Repairs
- f. Onsite operations
- g. Scheduled tours
- h. Logging
- i. Computerized reporting
- j. Modifications, additions and changes to the hardware and software of the system.

T13.1 The Contractor shall assist the appropriate FMS in establishing Aeronautical Center policies and procedures for energy mandates and energy conservation measures as outlined in Energy Policy Order 1053.1A.

T13.2 OPERATION. CCMS Operations is operated twenty-four hour, seven day a week by qualified individuals who can start, stop, adjust, call-up data and information under CCMS control, understand HVAC operations and able to contact onsite surveillance operator and direct them to check problems reflected by the CCMS. Take required action against unsafe conditions, detect equipment failures or malfunctions and provide comfort conditions during all building occupancy hours. All CCMS and controlled systems shall be operated at the highest level of efficiency possible within the equipment limits. HVAC systems shall be operated to maximize energy conservation while maintaining building comfort.

T13.2.1 Whenever controlled space temperature during scheduled run time hours rises above 78° F., operate building cooling systems to maintain temperatures between 70° F. and 78° F. Lower temperatures are permissible when obtained without utilizing cooling systems. Areas are not to go above 85° F. during unoccupied times. When controlled space temperatures during scheduled run times drop below 70° F., operate building heating systems to maintain those temperatures between 70° F. and 78° F., and not less than 60° F. during unoccupied times. Adjustments to these settings may be necessary as special environmental requirements dictate, or as otherwise directed by the FMS.

T13.2.2 Maximum outside air is to be used instead of the building cooling system to cool the buildings.

T13.3 REPAIRS. Effect prompt repairs when any CCMS device fails.

T13.4 CONTROL CENTER OPERATIONS. The CCMS operator shall be the contact point for trouble calls when the trouble call desk in the Base Maintenance Building is not staffed.

T13.4.1 The CCMS operator shall conduct computer reviews and printouts of all controlled and monitored equipment in accordance with the building operating manuals, and provide logs, CLFs and pertinent information to the appropriate FMS personnel for review.

T13.5 NON-DESTRUCTIVE BASE LINE TESTING. The Contractor shall perform diagnostic software checks and troubleshooting to computers, printers, CRTs, micro-processors, lines, cables, equipment and other CCMS systems in accordance with the manufacturer's recommendations or as directed by the COR. When published guides to diagnostics are not available, the Contractor shall formulate and submit a plan to the COR for approval that shall accomplish the same results.

T13.5.1 All temperature control devices on CCMS shall be checked along with other control devices for proper operations and calibration.

T13.6 CCMS MALFUNCTIONS. Any time any part of the CCMS is not operational or is malfunctioning, the facts as to systems down, time went down, when repairs will be effected, and impact on HVAC/Environmental systems, shall be reported to the FMS.

T13.7 CCMS CONTROL ROOM. The CCMS control room shall be kept in good order and kept clean. No materials or substances will be allowed in the area that might effect any CCMS equipment.

T13.8 CCMS TELEPHONE. A Government on-base telephone will be provided in the CCMS control room. This phone shall be utilized for coordination of operations. When emergency off-base calls are required, other than the AMP-300 Management and/or appropriate FMS, the CCMS operator must made this calls through the MMAC Operations Center.

T13.9 CCMS RADIO. A radio station will be in the CCMS control room that can contact the Security Guards and the surveillance operator. This radio shall be utilized for coordination of operation.

T13.10 CCMS EQUIPMENT. The Contractor shall operate, maintain and repair all CCMS equipment, including but not limited to controls, controlled devices, auxiliary equipment, HVAC /Environmental computer controls and monitoring systems.

T.13.11 SCHEDULED CCMS MAINTENANCE. Scheduled maintenance procedures shall be executed and documented for building controls, onsite monitoring points and building automation.

T13.12 CCMS SYSTEM. [REDACTED]

T13.12.1 Software/Hardware.

[REDACTED]

Technical Exhibit 14

T.14 Building Emergency Generators

BUILDING LOCATIONS	BUILDING #	KW SIZE	TYPE OF FUEL	MANUFACTURE
[REDACTED]	[REDACTED]	125	Diesel	ONAN
[REDACTED]	[REDACTED]	75	Diesel	CAT
[REDACTED]	[REDACTED]	80	Diesel	ONAN
[REDACTED]	[REDACTED]	80	Diesel	KOHLER
[REDACTED]	[REDACTED]	150	Diesel	KOHLER
[REDACTED]	[REDACTED]	150	Diesel	CUMMINGS
[REDACTED]	[REDACTED]	285	Diesel	CAT
[REDACTED]	[REDACTED]	125	Diesel	KOHLER
[REDACTED]	[REDACTED]	258	Diesel	KOHLER
[REDACTED]	[REDACTED]	45	Diesel	KOHLER
[REDACTED]	[REDACTED]	750	Diesel	KOHLER
[REDACTED]	[REDACTED]	125	Diesel	KOHLER
[REDACTED]	[REDACTED]	45	Diesel	ONAN
[REDACTED]	[REDACTED]	25	Diesel	KOHLER
[REDACTED]	[REDACTED]	50	Diesel	ONAN

BUILDING LOCATIONS WAREHOUSE #2	BUILDING #	KW SIZE	TYPE OF FUEL	MANUFACTURE
[REDACTED]	[REDACTED]	125	NATURAL GAS	OLYMPIAN
[REDACTED]	[REDACTED]	45	NATURAL GAS	KOHLER
[REDACTED]	[REDACTED]	150	NATURAL GAS	CUMMINGS
[REDACTED]	[REDACTED]	100	NATURAL GAS	ONAN
[REDACTED]	[REDACTED]	500	NATURAL GAS	ONAN
[REDACTED]	[REDACTED]	230	NATURAL GAS	KOHLER
[REDACTED]	[REDACTED]	18	NATURAL GAS	KOHLER
[REDACTED]	[REDACTED]	35	NATURAL GAS	KOHLER
[REDACTED]	[REDACTED]	100	NATURAL GAS	ONAN
[REDACTED]	[REDACTED]	20	NATURAL GAS	ONAN
[REDACTED]	[REDACTED]	16	NATURAL GAS	KOHLER
[REDACTED]	[REDACTED]	20	NATURAL GAS	CUMMINGS
[REDACTED]	[REDACTED]	215	NATURAL GAS	CUMMINGS
[REDACTED]	[REDACTED]	350	NATURAL GAS	CUMMINGS
[REDACTED]	[REDACTED]	30	NATURAL GAS	KOHLER