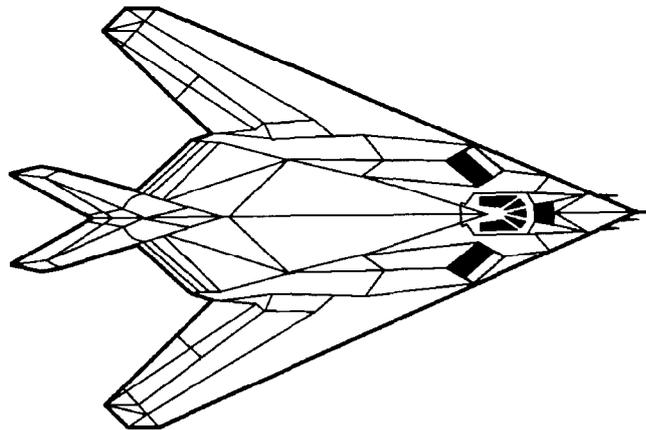


# **STATEMENT OF WORK**

## **F-117 SUPPORT CONTRACT**

**FY99 - FY06**



**F-117 SPO**

**4 September 1998**

**TABLE OF CONTENTS**

<b>1. INTRODUCTION</b>	<b>2</b>
<b>1.1 COMPLIANCE DOCUMENTS</b>	<b>3</b>
1.1.1 Military Specifications	3
1.1.2 Publications	3
<b>1.2 GUIDELINE DOCUMENTS</b>	<b>4</b>
<b>2. RESOURCE ALLOCATION</b>	<b>5</b>
<b>3. TSPR FUNCTIONS</b>	<b>5</b>
<b>3.1 BUSINESS ADMINISTRATION</b>	<b>5</b>
<b>3.2 TECHNICAL ASSISTANCE</b>	<b>5</b>
<b>3.3 ENGINEERING</b>	<b>6</b>
3.3.1 Government Coordination	6
3.3.2 Government Source Data	6
3.3.3 Engineering Analyses	6
3.3.4 System Safety	7
3.3.5 Software and Hardware Maintenance	7
3.3.6 Matrix Engineering	8
3.3.7 Technical Data	8
3.3.8 Support Equipment	9
<b>3.4 SUPPLY</b>	<b>9</b>
<b>3.5 LOGISTICS</b>	<b>10</b>
3.5.1 Training Devices	10
3.5.2 Training	10
3.5.3 Technical Publications	10
3.5.4 Reliability Maintainability and Supportability	10
3.5.5 Field Service	11
<b>3.6 PROGRAM PLANS AND CONTROL</b>	<b>11</b>
<b>3.7 INNOVATIONS AND IMPROVEMENTS</b>	<b>11</b>
<b>3.8 FLIGHT TEST</b>	<b>12</b>
<b>3.9 FLIGHT MANUALS</b>	<b>12</b>
<b>3.10 DEPOT MAINTENANCE</b>	<b>13</b>
3.10.1 Aircraft Depot Support	13
3.10.2 Analytical Condition Inspection (ACI)	13
3.10.3 Receiving/Condition Squawk(s)	13
3.10.4 Unscheduled / Emergency Maintenance	13
3.10.5 Deployable Depot Technical / Maintenance Assistance Team	13
3.10.6 Component Repairs	13
<b>4. MODIFICATIONS</b>	<b>14</b>
<b>4.1 AIRCRAFT MOD LINE</b>	<b>14</b>

## 1. INTRODUCTION

The Total System Performance Responsibility (TSPR) contract provides complete acquisition and sustainment support, system engineering, flight test support, depot modifications, materiel management, and logistics support for the F-117 weapon system. This includes tasks, such as: business administration, technical assistance, engineering, supply, logistics, program plans and controls, innovations and improvements, flight test, flight manuals, depot maintenance, aircraft mod line and component modifications.

This Statement of Work (SOW) establishes the primary responsibilities LMSW is to assume under the F-117 TSPR support contract. This TSPR contract will provide the depot-level acquisition and sustainment requirements necessary to support the mission, operation and *continued combat capabilities of the F-117 weapon system into the next decade*. The TSPR will continue the existing partnership between the Air Force Materiel Command (AFMC) System Program Office (SPO), the Air Force Flight Test Center (AFFTC), the Air Combat Command (ACC) Warfighter, and Lockheed Martin Skunk Works (LMSW), the Contractor.

This SOW excludes Organizational and Intermediate level maintenance, base level supply and Engineering Change Proposals (ECPs) that exceed the core capability described herein. LMSW will provide support and maintenance of the F-117 weapon system as defined in the TSPR contract. In this context, the weapon system consists of:

- a) Operational aircraft
- b) Flight test aircraft and facilities
- c) F-117 Organizational, Intermediate & Depot level support/test/instrumentation equipment (excluding common equipment supported by the government)
- d) Program repair/test facilities
- e) Aircraft , support equipment, test facilities, mission planning and training devices spares
- f) Weapon System Trainer/Integrated Support Facility (WST/ISF) and Maintenance Training Units (MTUs)
- g) F-117 mission planning systems, not limited to Mission Planning System (MPS)
- h) Organizational & Intermediate level technical publications
- i) Flight Manuals
- j) Engineering technical data, such as drawings, specifications, etc.

The following documents are applicable to this Statement of Work (SOW).

- a) Compliance documents - Mandatory contractor responsibilities within the document. Secondary references in compliance documents are considered guideline documents only.
- b) Guideline documents - Contractor shall meet the general intent of the document.

**1.1 COMPLIANCE DOCUMENTS****1.1.1 Military Specifications****Issue Date**

MIL-STD-461D, Requirements for Control of Electromagnetic Interference Emissions	11 Jan 93 (Notice 1)
MIL-STD-882C, System Safety Program Requirements	(w/ Notice 1, dtd 01-19-96)
MIL-STD-1686C, Electrostatic Discharge Control Program	25 Oct 95, No Changes
MIL-PRF-7700F, Manuals, Flight	1 Mar 96
MIL-STD-38784, Standard Practice for Manuals, Technical; General Style and Format Requirements	Jul 95
AFOSH 91-66, General Industrial Operations	Oct 97

**1.1.2 Publications**

TO 00-20-1, Preventative Maintenance Program General Policy Requirements and Procedures	Change 8, 15 May 92
TO 1-1-300, Acceptance/Functional Check Flights and Maintenance Operational Checks	Nov 94
AFJI 10-220 V1, Contractors Flight & Ground Operations	Nov 91
AFI 11-218, Aircraft Operation and Movement on the Ground	May 94
AFI 21-112, Aircraft Egress and Escape Systems	Nov 97
AFI 32-2001, The Fire Protection Operations and Fire Prevention Program	Sep 97
AFMAN 91-201, Explosives Safety Standards	Jan 98
AFI 91-202, The U.S. Air Force Mishap Prevention Program	Oct 95
AFI 91-204, Safety Investigations and Reports	Dec 97
AFI 91-301, Air Force Occupational & Environmental Safety, Fire Prevention and Health (AFOSH) Program	Jun 96
AFI 91-302, Air Force Occupational & Environmental Safety, Fire Protection & Health (AFOSH) Standards	Apr 94
SSM101 (SEPG), Software Standards Manual (SSM)	14 Feb 94 (Chg dtd 26 Jun 96)
SP5680, Cartridge Actuated Initiators, Removers, Thrusters, and Explosive	No Change, 15 Sep 90
SP5070, Support Equipment	
SP7284, Software Quality Program Plan (SQPP)	Change 1, 02 Nov 94

SP9001, LMSW Quality System Manual	No Change, Jan 96
SP7837, F-117 System Safety Plan	10 Feb 98
TMCR 86-01 T, Air Force Technical Manual Contract Requirements	1 Oct 98

## 1.2 GUIDELINE DOCUMENTS

NAS 411, Hazardous Materials Management Program	Revision 2, 29 Apr 94
TO 00-5-1, AF Technical Order System	Apr 97
TO 00-5-2, Technical Order Distribution System	Jun 97
TO 00-5-3, AF Technical Manual Acquisition Procedures	Nov 96
TO 00-5-15, Air Force Time Compliance Technical Order System	May 97
TO 00-5-18, USAF Technical Order Numbering System	Jul 97
TO 00-20-4, Configuration Management Systems	Sep 93
TO 00-20-5, Aircraft, Drone, Aircrew Training Device, Engines, and Air-Launched Missile Inspections, Flight Reports, and Supporting Maintenance Documents	Jun 96
TO 00-25-4, Depot Maintenance of Aerospace Vehicles and Training Equipment	Change 1, Apr 97
TO 00-35D-54, USAF Deficiency Reporting and Investigating System	Jan 94
TO 00-85 Series, Packaging Series	
TO 110 N Series, Radioactive Items	
TO 00-25-107, Maintenance Assistance	Oct 96
AFI 10-601, Mission Need and Operational Requirements Guidance and Procedures	May 94
AFI 11-215, Flight Manuals Program (FMP) as supplemented	May 94
AFI 21-101, Maintenance Management of Aircraft	Jul 97
AFI 21-102, Depot Maintenance Management	Jul 94
AFI 21-103, Equipment Inventory, Status, and Utilization	Sep 97
AFI 21-118, Improving Aerospace Equipment Reliability and Maintainability	Jul 94
AFMAN 23-110, USAF Supply Manual	Oct 97
AFJMAN 23 Series, Storage and Warehousing	
AFI/AFJI/AFJMAN 24 Series, Packaging and Materials Handling	
AFM 67-1 Series, U.S. Air Force Supply Manual	

ACCI 10-601, Operational Needs, Requirements, Concepts, and Modifications	Apr 96
AFMCI 21-126, Temporary 2 (T-2) Modification of Aerospace Vehicles	Apr 97
ACCI 63-1150, Modification, Program Approval and Management 20CM004, Configuration Management Plan	Dec 94
SP5229-01, Packaging Procedures for Components and Materials	
SP5229-02, Packaging Procedures for Components and Materials	
SP7201, Software Development Plan (SDP)	
TSPR 800, Total System Performance Responsibility Manual	01 Oct 98

(Specific chapter references in this SOW are compliance documents)

## **2. RESOURCE ALLOCATION**

LMSW shall provide a program management capability that will manage and control all program costs, schedule performance and technical performance. LMSW shall be responsible to plan, budget, schedule and allocate funding and resources under this contract.

## **3. TSPR FUNCTIONS**

### **3.1 BUSINESS ADMINISTRATION**

LMSW shall administer F-117 contracts issued to LMSW from the SPO. Administer subcontractor and vendor activities; spares and repair/modification activities; respond to administrative inquiries from the SPO; submit Rough Order of Magnitude (ROM) and priced proposals; provide financial data and schedules and prepare and present Financial Reviews. (CDRLs A0300, A0301, A0304)

### **3.2 TECHNICAL ASSISTANCE**

LMSW shall:

- a) Chair/co-chair working groups and Integrated Product Teams (IPTs) as required.
- b) Provide on-site orientation, training and technical assistance to the using command.
- c) Resolve discrepancies in spares manufacturing (orders) including support to establish alternate suppliers for vanishing vendors.
- d) Provide support for exercises, alerts and deployments. Deployment of personnel will be provided under a separate contract.
- e) Provide a technical point of contact and appropriate expert personnel in support of aircraft mishap investigations when directed by the Air Force.
- f) Provide technical support to investigate and resolve aircraft structure, hardware/software, and subsystems problems, including on-site support as required.
- g) Provide technical assistance in accordance with TO 00-20-107, to include

- Maintenance Assistance Requests (MARs)
- h) Provide Ground Support Equipment (GSE) technical support to the using command.
  - i) Provide technical support to the Joint Technical Coordinating Group for Munitions Effectiveness (JTTCG/ME) with publishing aircraft delivery accuracy data in the Joint Munitions Effectiveness Manuals (JMEMs). Provide information (error budgets, process flow diagrams, etc.) consistent with the JMEM computer models.
  - j) LMSW will prepare and process all Engineering Test Requirements (ETRs)/Class II (T-2) mod requirements for the CTF and OT&E for the evaluation of new/modified configuration items.
  - k) Provide support to SPO, CTF and OT&E during testing or release of hardware/software improvements to the operational units.
  - l) Provide periodic pilot orientation briefings at LMSW's facility.

### **3.3 ENGINEERING**

LMSW shall manage and control the systems engineering process to assure TSPR. The systems engineering process establishes the basis for integrating the efforts of the entire product team to meet program cost, schedule and technical performance.

#### **3.3.1 Government Coordination**

LMSW shall report on all aspects of the F-117 weapon system and provide direct interface and communication with appropriate government agencies/contractors. LMSW will provide Program and Division-level Managers points of contact (POCs) for all Air Force management, support and operating organizations.

#### **3.3.2 Government Source Data**

LMSW Engineering shall obtain source data from those agencies responsible for threat and other mission planning data, weapons and weapons data to support analyses for applicability and potential integration in the F-117 weapon system.

#### **3.3.3 Engineering Analyses**

Perform technical analyses and produce appropriate documentation.

Support preliminary activities for weapons integration.

Maintain, support and update performance evaluation, operational threat analysis and mission planning system.

Review and interpret data resulting from testing performed at the CTF and off-site locations.

Analyze aircraft, support system, and training system failures. Determine resolution of failures by tracking failures and determining failure cause and recommending corrective action.

Provide flight test data analysis reports including test planning and report writing for airframe, avionics, propulsion, and weapon separation parameters.

Provide Performance Evaluation reports and related support, development, and maintenance of appropriate software and facilities.

Provide assistance to maintain flight envelope definition and systems operating parameters for fleet vehicles, as well as worst case gross weight and forward and aft Center of Gravity points.

Maintain weight records on each aircraft. Provide evaluations of each proposed modification for its effect on gross weight and center of gravity.

Develop and/or provide requested mission planning data to designated users.

### **3.3.4 System Safety**

LMSW shall perform the following services:

Establish System Safety Program requirements IAW Task 101, Para 101.1 through 101.2.5, MIL-STD-882C, integrating components of the system safety program to form a seamless data based process consistent with system engineering principles. Perform hazard analyses IAW Task 102, System Safety Program, identifying the hazard analysis technique used. In the event of an unexpected major mishap, address how reporting, accountability, traceability, and resolution of the mishap are accomplished. After Government approval of the mishap report, the system safety effort is complete.

Coordinate on proposed flight manual changes. Provide appropriate personnel in support of accident investigations when directed by the Air Force. Provide data to the SPO for normal Air Force mishap reporting for the program. (CDRL A0305)

Report incidents/mishaps pertaining to a catastrophic or critical hazard to the Government program officer immediately. Report all other incidents through the normal notification process. Report all Depot mishaps to the Administrative Contracting Officer (ACO) for aircraft in modification Depot only. This includes all available facts relating to each instance of damage to Government property. Secure mishap area and wreckage for aircraft in modification Depot until released by the government. Assist government personnel if a mishap investigation is conducted.

### **3.3.5 Software and Hardware Maintenance**

Maintain F-117 Software Development Plans (SDPs). Manage the maintenance and development of avionics system and support equipment software per the SDPs, including as contracted through ECPs. Provide the capability to execute limited risk reduction and technology demonstration programs.

Manage and support the Operational Flight Program (OFP).

Manage and support the operational F-117 MPS.

Manage and support the mission planning Government Furnished Property (GFP): CommLink, FPLAN, and Combat Flight Planning Software (CFPS).

Manage, support, and provide maintenance changes and new capabilities for the Target Area Planning (TAP) and Tic-Tac-Toe systems.

Maintain and update the avionics system support software, test software and development tools. Manage the development of AESOP software IAW the AESOP SDP.

Maintain Mockups, including documentation and drawings. Provide maintenance support to the LMSW F-117 MPS. Maintain Personal Computer-Based Automated Test System (PCATS) and the Consolidated Automated Test Equipment (CATE) stations at LMSW's facility. Maintain CATE software per the CATE SDP.

Maintain hardware/test facilities to troubleshoot, repair, and re-certify as serviceable avionics

LRUs, components and support equipment.

Perform Weapon System Integration Testing (WSIT) of changes to F-117 Mission Planning System (FMPS) and/or the avionics systems not included in ECPs or Block Cycle programs. Provide mission planning system user and maintenance training, as requested. Support and maintain the Mission Data Processing System (MDPS) until replaced by the FMPS. (CDRL A0303)

### **3.3.6 Matrix Engineering**

Provide Materials and Process engineering support for spare, field and operational problem resolution. Implement and manage the approved Hazardous Material Management Program in accordance with NAS 411.

Provide on-site and off-site support for F-117 projects, such as: technical and flight manuals updates; ASIP software update designs; F-117 Mission Planning System threat data bases; testing operational implementation of the MPS; the CLOAR threat model, parts tracking, Individual Aircraft Structural Tracking program, routine corrective action and repair instructions of all depot aircraft defects, weapon integration and problem solving efforts.

Provide support for processing, analysis, and record keeping for low observable evaluation flights. This is a test support activity organized under a core support concept. The CTF is funded and manned to maintain the minimum necessary capability to test avionics, OFPs, weapons, low observables and R&M improvements. ECP efforts that require support beyond the level of core capability shall be covered and funded by the respective ECP(s). Maintain low observable models and computer codes. Support survivability and vulnerability analysis.

Produce, maintain, update and distribute threat and template data suitable for F-117 mission planning. Mission planning data products will support the currently fielded Mission Data Processing System (MDPS) and AFMSS/CLOAR.

Provide regular updates to the Mission Flight Planning Guide (MFPG) and host and conduct MFPG and AFMSS/CLOAR mission data meetings.

Maintain, update and produce the Pilot Training Course and Pilot briefing materials.

Provide survivability and mission effectiveness assessments to cover tactics, missions, modifications, problems, and issues associated with the F-117 and its operational employment.

Provide threat, radar, digital model and analysis expertise to support the SPO, user, OT&E, CTF and site activities.

### **3.3.7 Technical Data**

LMSW Engineering will maintain and update deliverable and non-deliverable documents, specifications, test procedures, and Interface Control Documents, excluding proprietary documentation. Further, Engineering shall create, maintain and update technical drawings for the aircraft and support equipment; convert drawings to Computer Aided Design (CAD) format when over 40 percent of the drawing is changed. Provide new and updated drawings to Technical Publications for inclusion in technical manuals.

Maintain Component Data Sheets (CDSs), Functional Test Procedures (FTPs) and System Checkout Procedures (SCOs).

Maintain the F-117 Air Vehicle Product Description which documents "as built" performance and physical characteristics.

Maintain flight envelope definition and systems operating parameters for fleet vehicles.

Provide input to the long-range flight test-road map.

Maintain a listing of Electrostatic Discharge (ESD) sensitive Line Replaceable Units (LRUs).

Prepare technical reports and analyses on hardware issues and subsystem operations.

Update Failure Mode Effects and Criticality Analyses, excluding modification efforts under ECPs.

Maintain non-proprietary functional test procedures, test equipment documentation and process and track all requests for changes to configuration items and non-configuration items, including mock-ups and test configurations.

Maintain an integrated plan/schedule for the F-117 MPS, ECPs, and Block Cycle development programs.

Maintain the anomaly/corrective action tracking database for hardware/firmware/software configurations.

Maintain a record of tailpipe hours and the aircraft in which the tailpipes are installed.

Maintain a library of configured S/W, both under evaluation and fielded, with associated data to assure configuration control and traceability.

Load and maintain TCTO/Service Bulletin and part number data tables in REMIS and Comprehensive Engine Management System (CEMS).

### **3.3.8 Support Equipment**

LMSW shall control, maintain and deliver the Special List Of Equipment (SLOE 054K) and provide depot level maintenance of F-117 support equipment hardware and software (reference SP5070, Support Equipment). Stock listed (NSN) equipment will be supported by the appropriate government agencies.

## **3.4 SUPPLY**

LMSW shall manage (provision, repair, receive, store, issue, arrange transportation and supply data) program assets in support of using command, CTF and the Depot. (CDRLs A0100, A0101, and A0102)

Prepare and process Scrap documentation for Bonded Stock/GFP consumable assets and turn in scrap parts to the local government Defense Redistribution Management Office (DRMO).

Prepare and process Scrap request for Bonded Stock/GFP recoverable assets that are beyond economical means to repair, i.e., over 75% of the current unit purchase price. Assets approved for scrap will be turned into the local government DRMO.

Provide storage and maintenance of F-117 production tooling and conduct a 100% inventory of all in-use and all not in-use tools every 3 years at a rate of one-third of tools per year.

Perform a 100% physical inventory for all Government Furnished Property/Equipment

(GFP/GFE), other than production tooling, every 3 years at a rate of one-third per year.

### **3.5 LOGISTICS**

LMSW shall provide Logistics Support including the following disciplines: maintenance training/training devices, field service, depot mod logistics, technical publications, and RM&S.

#### **3.5.1 Training Devices**

LMSW shall provide overall management and administration for all Weapon System Trainer (WST)/Integrated Support Facility (ISF) related activities. Provide support in conjunction with Pilot Training System (PTS) functions. Maintain and update the Part Task Trainer (PTT) to be concurrent with the delivery of the first Configuration Upgrade (CU) aircraft.

Assess prime vehicle modifications impacts on the WST/ISF and MTU. Develop periodic WST/ISF OFP Software and Omnibus WST/ISF and MTU updates as needed for changes not authorized by ECPs. Plan, budget, schedule and allocate resources required for the WST updates. Procure, manufacture, and fill kit lists to support all update efforts. Design, code, integrate, and debug the software/hardware. Troubleshoot and repair MTUs/CBT in the field. Maintain configuration management of the systems and WST Master Deck documentation.

#### **3.5.2 Training**

Modification or changes that impact operator or maintenance training shall be identified and incorporated into the training course curriculum. Provide two presentations of updated courses, incorporate instructor/student comments, and prepare and deliver the course materials after the final presentation.

#### **3.5.3 Technical Publications**

LMSW shall be the Technical Order Management Activity (TOMA) and shall perform all tasks required to ensure the F-117 technical orders are maintained current in accordance with the Technical Manual Contract Requirements document, TM 86-01/T and applicable Air Force specifications and standards. (CDRL A0200)

#### **3.5.4 Reliability Maintainability and Supportability**

Maintain around-the-clock coverage to provide technical response to field issues. Manage the Product Quality Deficiency Report process; track and report status and results of analysis and investigations for items being repaired. Perform Reliability and Maintainability analysis and investigations, including maintenance failure tracking database information and processing Failure Tracking Reports (FTRs). Update the RAMA model quarterly.

Evaluate all GIDEP Alerts to determine applicability to the F-117 program and initiate actions required to minimize the impact. Provide resource and training coordination for government computer systems such as: REMIS, CAMS, INFOCEN, CEMS and STEMS.

Maintain Reliability Centered Maintenance documents. Provide normal maintenance reporting data via Reliability Maintainability Information System (REMIS). Update Failure Reporting and Corrective Action (FRACAS) records. Maintain the tailpipe structural repair database.

Provide support for development of technical rationale for Change Recommendations concerning aircraft modifications and improvements, and for benefit analyses and funding requirements.

Receive, process and respond to field inputs and suggestions.

### **3.5.5 Field Service**

LMSW F-117 field service shall perform the following services:

Provide a Contract Liaison Officer (CLO) as central point of contact at Wright-Patterson AFB (WPAFB); report to the SPO and LMSW on Program activities. Coordinate responses to SPO requests, data submittals, support SPO meetings and generate documentation as required.

Provide a CLO as central point of contact at Holloman AFB (HAFB); report to the SPO and LMSW on CETS activities. Comply with all 49th FW policies, and local safety requirements. Support exercises. Attend maintenance stand-up meetings. Support Product Improvement Working Group (PIWG) and Operational Reliability Maintainability Evaluation Team (ORMET), generate required documentation.

Provide representatives at Holloman AFB, including a Low Observables (LO) Engineer, to serve as liaisons between LMSW and base maintenance and supply operations. Carry out on-site point of contact duties for disposition of maintenance anomalies and all urgent base supply needs.

## **3.6 PROGRAM PLANS AND CONTROL**

LMSW shall provide life cycle configuration management of the entire F-117 weapons system under the guidelines of the F-117 System Configuration Management Plan (20CM004).

LMSW shall generate and process TCTOs IAW TSPR 800, Chapter 58. (CDRL A0200)

Provide for release of drawings. Prepare and distribute Aperture Cards of drawings.

Provide a single point of contact for F-117 data management. This database will include the following:

- a) Contract Data Requirements List (CDRL) submittals
- b) Master technical library including: Program reports; Studies; Released software/firmware; and Historical documents
- c) Data Accession List (DAL) (CDRL A0302)

## **3.7 INNOVATIONS AND IMPROVEMENTS**

LMSW shall perform a continuous technology assessment in order to propose innovations and improvements to the F-117 weapon system. Identify and recommend candidate ECPs for weapon system improvements in performance, reliability, maintainability or obsolescence replacement. In addition, LMSW shall investigate, recommend solutions, and implement minor product improvements to solve operational problems. LMSW shall accomplish engineering prototyping, testing, technical manual changes, kit fabrication and installation of kits for modifications to correct service encountered discrepancies that impact operational readiness of approved configuration F-117A aircraft. These minor mods are limited to an average of 500 engineering man-hours/\$60K material per mod. Total expenditures for a respective FY shall not exceed \$500K kit fabrication and \$500K kit installation (labor & material).

Develop programmatic and technical rationale for recommended aircraft modifications and

improvements to the F-117 SPD for input to the HQ ACC Modernization Planning Process (MPP). These prioritized recommendations will include benefit analyses and funding requirements.

Coordinate with SPO and prepare Change Recommendation for future modifications. Subsequent proposals will be prepared and submitted when requested by the SPO. Rough-Order-of-Magnitude (ROM) priced estimates and man-hour estimates will also be prepared and submitted when requested by the appropriate SPO approval authority.

### **3.8 FLIGHT TEST**

LMSW shall provide on-site management of the following functions: input to the long range flight test Road map; weekly flight scheduling inputs, status and results of test and flight activity, LMSW on-call engineering support for F-117 flight test activity, administrative, security, and staff functions to support test activities, preparing all documents necessary to support flight test.

Participate in the combined USAF/Contractor Test Force operating out of Site 7 at USAF Plant 42. Provide CORE Flight Test and Avionics Test Engineering to support flight and ground operations on the equivalent of two CTF aircraft. This is a minimal effort geared to support the baseline flight test roadmap. ECP efforts and user generated requirements that require support beyond the level of core capabilities shall be covered and funded by the respective ECP(s) or user. Provide extended Flight Test Engineering support (including mission planning support) to transient fleet / OT&E aircraft. CORE support includes the depot requirements for performance of functional check flights and other flights when required, and assistance with redelivery of aircraft.

Support DIR test planning, execution, analysis, and reporting for CTF test projects and depot aircraft, both pre-depot and post-depot deliveries. DIR support will include system operation, maintenance, and calibration.

Provide supplemental flight operations support (pilots and planner/scheduler functions, general maintenance capabilities, flight preparation / inspection, TCTO incorporation, and incorporation of minor flight test kits not covered by separate ECP, instrumentation repair / maintenance, back shop support, as well as specialized capabilities such as coating). Provide Instrumentation Engineering support for depot level maintenance and calibration and acceptance of airborne instrumentation equipment, including support for the Low Observable Instrumentation System Recorder. Maintain Ground Station capability. Provide on-call support to the CTF as required. Provide Instrumentation Engineering to support flight and ground operations on the equivalent of two CTF aircraft. The instrumentation system on-board aircraft 783 will be maintained in its present configuration with no additions or changes supported unless paid for specifically by an ECP. The instrumentation system on aircraft 782 will not be maintained.

### **3.9 FLIGHT MANUALS**

LMSW shall perform the duties of Flight Manual Manager as defined in AFI 11-215 and its supplements. LMSW shall prepare, coordinate, review, publish and distribute Flight Manual Program (FMP) publications and Flight Test Supplements. In-flight checklists, except the IF-117-6CF-1CL, shall be delivered on yellow Kimdura or equivalent media. Maintain TO 20G1303 series MDPS manuals until superseded by AFMSS based MPS. Maintain master index

status of AF Forms 847 written against the F-117 Flight Manuals. (CDRL A0200)

### **3.10 DEPOT MAINTENANCE**

#### **3.10.1 Aircraft Depot Support**

LMSW shall provide Manufacturing Management to support the repair, refurbishment and manufacturing of all hardware for the F-117 TSPR. Manufacturing management shall manage, control, schedule, test and deliver all required hardware for this program. Ensure that acceptance testing, qualification testing and quality assurance certification is performed. LMSW will correct all discrepancies directly related to work performed on non-GFE items by LMSW prior to final delivery. LMSW shall develop and submit reports of actual man-hours expended for each aircraft, and shall submit annual Maintenance Requirements Review Board (MRRB) brochures. (CDRL A0300)

#### **3.10.2 Analytical Condition Inspection (ACI)**

Perform an Analytical Condition Inspection (ACI) on aircraft scheduled by the SPO and LMSW. LMSW shall repair/correct defects discovered during ACI and document and report individual task results per the applicable FY ACI Worksheet Package to the SPO. (CDRL A0306)

#### **3.10.3 Receiving/Condition Squawk(s)**

Identify work other than TCTO-related as a Receiving/Condition Squawk. Correct all critical, safety-of-flight, and life support systems defects. Correct other defects as determined by LMSW. Enter defects not corrected in the AFTO Forms 781.

#### **3.10.4 Unscheduled / Emergency Maintenance**

Accomplish immediate, urgent action, safety Time Compliance Directives (TCDs) and TCTOs that are outstanding or generated while the A/C is in work. This action on non-scheduled A/C will be as directed by the SPO. Support transient aircraft that are in direct support of the F-117 program. Accomplish negotiated requirements specified in the AFTO FORM 103 "Aircraft/Missile Condition Data".

#### **3.10.5 Deployable Depot Technical / Maintenance Assistance Team**

Provide maintenance assistance as required (per the intent of TO 00-25-107) to support F-117 aircraft contingencies at assigned locations, including repair, modification, emergency maintenance, and technical assistance from various shops in conjunction with or separate from engineering assistance. Construct the LMSW team to support tasking requests from the operating command that are approved by the SPO.

#### **3.10.6 Component Repairs**

Maintain and support aircraft, WST/ISF, mockup, mobile equipment, maintenance van and MTU components. Update these components as required to the latest configuration developed under paragraph 3.7 as part of sustainment. This does not include updates developed or produced by ECP.

#### **4. MODIFICATIONS**

##### **4.1 AIRCRAFT MOD LINE**

LMSW shall receive aircraft and accomplish postflight, inventory, defuel and make aircraft safe for depot maintenance/modification IAW all applicable TOs, LMSW SCOs and blueprints and security regulations. Tear down aircraft by accessing applicable areas for incorporation of TCTO requirements and engine preservation IAW applicable TOs. Modify and checkout aircraft IAW applicable TOs. Install Service Bulletins IAW the applicable FY aircraft modification work package. Build up and check out aircraft IAW applicable TOs. Redeliver aircraft by removing all FOD, performing transfer inspection, depreserving engines, servicing all systems, weighing aircraft and performing preflight(s) IAW all applicable TOs. These actions shall be validated by Mandatory Government Inspections (MGIs).

**ATTACHMENT 1**  
**FACILITIES**

Items Maintained (SOW paragraph 3.3.5)	Comments
<p>Hardware test facilities for the following components:</p> <ul style="list-style-type: none"> <li>a) Consolidated Automatic Test Equipment (CATE)</li> <li>b) Personal Computer Automatic Test System (PCATS)</li> <li>c) Flight Control System (FLCC, NIAC, FCSP)</li> <li>d) Pitot and Air Data System</li> <li>e) Radio and Antennas</li> <li>f) Hydraulic/Integrated Servoactuator Systems</li> <li>g) Navigation System</li> <li>h) Auxiliary Power Unit/Pressurized Air Start System</li> <li>i) Weapons System Computational System</li> <li>j) Lighting Systems</li> <li>k) Stores Management System</li> <li>l) Expanded Data Transfer System</li> <li>m) Digital Tactical Situational Display</li> <li>n) PDU/Throttle Grip/Control Stick</li> <li>o) Color Multipurpose Display System</li> <li>p) Mission Data Processing System</li> <li>q) F-117 Mission Planning System</li> </ul>	
<p>Mockups</p> <ul style="list-style-type: none"> <li>a) Flight Controls Functional Mockup</li> <li>b) OCIP/RNIP Plus Hot Mockup</li> <li>c) RNIP Plus Hot Mockup</li> <li>d) Raytheon TI Mini Hot Mockup</li> <li>e) CTF 4 Configuration Hot Mockup</li> </ul>	
<p>CATE stations</p>	<p>At CTF, LMSW and supplier locations</p>
<p>PCATS station</p>	<p>At LMSW locations</p>
<p>Library of Special Access Required magnetic media</p>	
<p>Master technical library</p>	
<p>Master software/firmware library of released configurations</p>	
<p>CDRL data base tracking system</p>	