

## **1.0 INTRODUCTION**

Code 41200, the RF Systems Fleet Engineering Division of Space and Naval Warfare Systems Center Pacific (SSC Pac) is being tasked by the Program Executive Office for Space Systems (PEO Space Systems) to acquire engineering support services for PEO Space Systems Communications Satellite Program Office PMW 146.

## **2.0 BACKGROUND**

### **2.1 Missions**

PEO Space Systems PMW 146 mission is to develop, acquire, integrate, produce, launch, test, and provide operational support to space systems for Department of Defense (DoD) and U.S. Agencies to enable joint, coalition, combined, and Naval operations. In addition, the PEO Space Systems is also responsible for coordinating all Department of the Navy (DoN) Space Research, Development and Acquisition activities and Narrowband Ultra High Frequency (UHF) SATCOM satellite systems (FLTSAT, UHF Follow-On, LEASAT and Skynet). SSC Pac Code 41200 will support PMW 146 in this mission.

### **2.2 Functions**

The PEO Space Systems serves as the DoN space program executive officer as called for in the National Security Space Acquisition Policy (NSSAP 03-01). The PEO Space Systems is also responsible for influencing the design, acquisition, and operation of national security space programs in order to provide a full spectrum of on-orbit capabilities in support of open-ocean, littoral, and naval land operations. The Communications Satellite Program Office mission is to develop, acquire, integrate, produce, launch, test and provide operational support for narrowband satellite communication systems supporting Department of Defense (DoD) and the U.S. agencies to enable joint, coalition, combined, and naval operations. PMW 146 manages the acquisition and support of narrowband satellite communication systems for the Department of the Navy and coordinating the acquisitions with the Under Secretary of the Air Force in accordance with the National Security Space Acquisition Policy (NSSAP) 03-01.

### **2.3 SSC San Diego Functions**

SSC Pac (Code 41200) is being tasked to assist PMW 146 with acquisition and production support of the military FLTSAT and Ultra-High Frequency Follow-On (UFO) programs, as well as the commercial leased satellites, LEASAT and Skynet.

## **3.0 SCOPE**

The purpose of this Task Order is to provide SSC Pac Code 41200 and PEO Space Systems PMW 146 with the capacity and capability to provide system engineering and support services that includes logistics, training development and system testing and evaluation of Navy, Joint Military, Foreign Military and Commercial communications systems, encrypted secure networks, and communication links that support and fall under the responsibility of PMW 146. Task Order services are for subject matter expertise (technical), with skill sets and experience that match SSC Pac's need to comply with and respond to DoD, SPAWAR, PEO requirements.

This Performance Work Statement (PWS) reflects current SSC Pac and PMW 146 policies and practices, allowing offerors to propose and price a solution to known requirements. It is

anticipated that program requirements and resulting objectives will change over the life of this task order. As necessary, SPAWAR will modify this order to incorporate any necessary in-scope changes.

#### 4.0 APPLICABLE DIRECTIVES/DOCUMENTS

The Contractor shall adhere to the following documents in accordance with paragraph 5.0, Performance Requirements:

Document Type	No./Version	Title	Date
DOD Directive	NSSAP 03-01	National Security Space Acquisition Policy	6-Oct-03
DOD Instruction	5200.4	DoD Information Technology Security Certification and Accreditation Process (DITSCAP)	30-Dec-97
DOD Instruction	8510.01	DoD Information Assurance and Accreditation Process (DIACAP)	28-Nov-07
DOD Directive	5000.1	The Defense Acquisition System	12-May-03
DOD Instruction	5000.2	Operation of the Defense Acquisition System	12 May 03
DOD Regulation	5000.2-R	Mandatory Procedures for Major Defense Acquisition Programs	5-Apr-02
SECNAVINST	5000.2C	Implementation and Operation of the Defense Acquisition System and the Joint Capabilities Integration and Development System	19-Nov-04

#### 5.0 PERFORMANCE REQUIREMENTS

The Contractor shall provide support, detailed below, for SSC Pac and PMW 146. The Contractor shall provide timely assistance to meet program emergent requirements.

##### 5.1 UHF/Narrowband Satellite Communications Support

**5.1.1** The Contractor shall provide qualified engineers, as necessary, for technical assessment of DoD and Naval technical architectures. The Contractor shall provide technical consultation and engineering analysis to assist the government in ensuring that the requirements associated with UHF/Narrowband Satellite Communications are met.

##### 5.2 Test Engineering Support

**5.2.1** The Contractor shall prepare and submit a test plan for all narrowband SATCOM services to include FLTSAT, UFO, LEASAT and Skynet program testing. The test plan shall evaluate the suitability of continuous increased frequency channel usage for the satellite footprint. The Contractor shall test plan for frequency characteristics, Uplink and Downlink interference, Propagation effects, RF Intermodulation Distortion and channel power and additional specifications determined to be critical to maintaining continuous UHF channels. The test plan

shall identify all EMI issues with UHF frequencies being used. Also, as part of the test plan, the Contractor shall observe the satellite to determine if any outages on channels occur during the satellite eclipse and/or solstice periods. (DI-NDTI-80566A TEST PLAN)

**5.2.2** The Contractor shall provide systems engineering support for all narrowband SATCOM services during execution of on-orbit testing of the new channels; and reviewing and analyzing the generated test data. The Contractor shall provide analysis of tested frequency characteristics using the test plan of 5.1.3.1, Uplink and Downlink interference, propagation effects, RF Intermodulation Distortion and channel power. In order to determine the maximum number of UHF SATCOM channels, the Contractor shall test and document the additional frequencies added to the UFO Constellation to determine any EMI issues with the current UHF frequencies. The Contractor shall observe the satellite to determine if any outages on channels occur during the satellite eclipse and/or solstice periods. The Contractor shall prepare and submit a draft engineering report for approval of the test results. (DI-MISC-80508B –TECH REPORT STUDY)

**5.2.3** The Contractor shall revise the draft engineering report with any corrections noted and provide for the distribution of the test results to all test sites and to PEO Space Systems and PMW 146. (DI-NDT1-80809B –TEST/INSPECTION REPORT)

### **5.3. Department of Defense (DOD) Technical Architecture**

**5.3.1** The Contractor shall participate as an active technical consultant/systems engineer on the various Assistant Secretary of Defense, Networks and Information Integration System Engineering working groups and Integrated Product Teams (IPTs) involved with the Global information Grid. These areas of support shall include:

- a) Systems Engineering support of the development of the Net-Centric Implementation Document (NCID) series.
- b) Systems Engineering, engineering analyses, trade studies and feasibility assessments in support of GIG SE activities.
- c) Evaluation of various designs, technologies, and methodologies for implementing IPV6 into naval space programs.

(DI-MISC-80508B –Technical Report–Study/Services),

**5.3.2** The Contractor shall participate as an active technical consultant/systems engineer on the various Department of Navy technical initiatives as directed by the Assistant Secretary of the Navy (Research, Development, and Acquisition) ASN (RDA) Chief Engineer (CHENG) and the FORCENet ChENG. These areas of support shall include:

- a) Systems Engineering support of all FORCENet related efforts.
- b) Systems Engineering, and engineering analyses in support of ASN (RDA) CHENG initiatives such as the Integration and Interoperability Management Plan and Systems Engineering Plan.
- c) Provide systems engineering and technical support as required.

(DI-MISC-80508B –Technical Report–Study/Services),

## **6.0 DELIVERABLES**

The Contractor shall provide monthly status reports by the 10th day of the month following the performance period. Format and other delivery requirements are provided in the Contract Data Requirements List (CDRL) in the basic contract. All remaining deliverables are cited in applicable performance requirements section 5.0.

## **7.0 TRAVEL**

2 trip, 2 person, 3 days, to Point Mugu CA  
1 trip, 2 person, 3 days, to Boston MA

## **8.0 SECURITY REQUIREMENTS**

The nature of this task requires access to SECRET information. The work performed by the Contractor will include access to SECRET data, information, and spaces. The Contractor will be required to attend meetings classified at SECRET levels.

Note: If foreign travel is required, all outgoing Country/Theater clearance message requests shall be submitted to the SSC SD foreign travel team, OTC2, Room 1656 for action. A Request for Foreign Travel form shall be submitted for each traveler, in advance of the travel to initiate the release of a clearance message at least 35 days in advance of departure. Each Traveler must also submit a Personal Protection Plan and have a Level 1 Antiterrorism/Force Protection briefing within one year of departure and a country specific briefing within 90 days of departure.

## **8.1 OPERATIONS SECURITY**

All work is to be performed in accordance with DOD and Navy Operations Security (OPSEC) requirements and in accordance with the OPSEC attachment to the DD 254.

## **9.0 BEST PRACTICES**

Work performed by the Contractor shall provide support to SSC SD, PMW and SPAWAR command-level "Best Practices" principles incorporated in the SPAWAR Program Manager's Toolkit Acquisition Support Office Guides (1) Acquisition Program Structure Guide; (2) Contract Management Process Guide; (3) Program Manager's Handbook; (4) Scheduling Guide; (5) Systems Engineering Guide; (6) Technology Alignment Guide and support the command wide implementation process.

## **10.0 TECHNICAL POINT OF CONTACT**

Technical Point of Contact/Task Manager:

Primary: [REDACTED] (619) 524-3696  
Alternate: [REDACTED] (619) 524-3425