

Performance Work Statement (PWS)
Remote Sensing - Scientific and
Engineering Research and Development
Support Services

Version 1.0

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Performance Work Statement (PWS)

Remote Sensing - Scientific and Engineering Research and Development Support Services

Vision Statement

Provide world class engineering and operational support services for space, air, and surface-based remote sensor systems used to model and perform scientific analysis of the Earth's ocean and land interface with the atmosphere and improve worldwide weather prediction capabilities.

1 Introduction

The Remote Sensing Division, NRL Code 7200, has an active program of research in the remote sensing, modeling, and scientific analysis of the Earth's atmosphere and ocean and land surfaces. The Division designs, tests and operates space-based, air-based and surface-based sensors, and develops new remote sensing capabilities and new ways of analyzing data.

1.1 Mission

The Remote Sensing Division's mission is to promote better understanding of weather phenomena due to interactions between the Earth's surface, atmospheric and near-earth space environments through the use of remote air, sea, land, and space based sensor systems for the purpose of developing better, national and worldwide, short-range and long-range weather forecasting capabilities.

1.2 Background

Current projects include: spectral imaging for the remote sensing of coastal water and of land surfaces; passive polarimetric microwave sensing of the ocean surface (Windsat, APMIR, and follow-on sensors); passive near ultraviolet, visible, near-infrared and passive microwave sensing of the atmosphere; synthetic aperture radar (SAR); radio, IR and optical astronomy; lidar sensing of the atmospheric boundary layer; passive sensing of direct and diffuse near-surface sunlight; and laboratory and field studies of aerosols, foam and bubbles, and fluid flow. The Division performs modeling, field and laboratory experiments, calibrates and validates sensors, carries out feasibility studies, and performs simulations and scientific analyses.

1.3 Scope

The purpose of this Performance Work Statement (PWS) is to acquire scientific and engineering R&D services to support the Remote Sensing Divisions formulation, design, development, fabrication, integration, testing, verification, operation, and data analysis of laboratory, field and spaceflight and ground system hardware and software, including the development and

validation of technologies to enable future science missions. Tasks range from supporting mission concept design and feasibility analyses through to the laboratory, in-field or flight (including on-orbit operation) of deployed systems, the analysis of engineering data obtained from them, and the development and operation of algorithms for analyzing data. The requirement includes providing on/off-site multi-disciplinary scientific, engineering and management services to support the development, implementation and use of components, subsystems, systems, and scientific instruments for NRL laboratory and "field experiments". Field experiments may include ground-based experiments, in-water experiments, experiments on spacecraft, and experiments on suborbital craft such as UAVs, balloons, and aircraft. Hardware to be developed may include instruments, Ground Support Equipment (GSE), simulators, non-flight models and prototypes.

Efforts in support of the tasks delineated in Section 3, Performance Requirements, below will often be conducted in coordination with Principal Investigator (PI) led research teams that may include Government scientists and other Contractors. The quality and timeliness of the provider's contribution to the work will be evaluated in terms of its impact on the success of the overall project.

2 General Requirements

The Naval Research Laboratory (NRL) Requirements for On-Site Contractors (ROSC) dated 8 December 2008 provides general instructions for Contractors conducting business at/on NRL property. Compliance with specific paragraphs of the NRL ROSC cited in the Section 2 - General Requirements and Section 4 - Special Requirements is mandatory, other requirements in the NRL ROSC are provided for information purposes only.

2.1 Non-Personal Services

The Government will neither supervise contractor employees nor control the method by which the contractor performs the required tasks.

The Government will not assign tasks to, or prepare work schedules for, individual contractor employees.

The Contractor **shall** be responsible for managing its employees and guarding against any actions that are of the nature of personal services, or give the perception of personal services as defined in FAR-Part 37, Service Contracting, dated 31 May 2011.

The Contractor **shall** notify the Contracting Officer (KO) if any Government requested actions constitute, or are perceived to constitute personal services.

2.2 Business Relations

The contractor **shall** integrate and coordinate all activity needed to execute this contract.

2.3 Contract Administration and Management

The following subsections specify requirements for contract management and contractor personnel administration

2.3.1 Contract Management

The Contractor **shall** establish clear organizational lines of authority and responsibility to ensure effective management of the resources assigned to this contract.

The Contractor **shall** incorporate proprietary hardware or software in deliverables only after being authorized, in writing, by the Contracting Officer (e.g. requires an exception to 2.3.2 below).

The Contractor **shall** provide a Monthly Cost Report on the schedule and in the format defined in [CDRL A001] to report current and cumulative Contractor (and subcontractor) labor (both on-site and off-site), material, and travel expenditures charged against this contract.

The Contractor **shall** provide a separate monthly Contractor On-Site Labor Report on the schedule and in the format defined in [CDRL A003] to report the total labor hours and costs billed to each assigned task for all Contractor (and subcontractor) personnel working on-site at NRL.

2.3.2 Personnel Administration

The Contractor **shall** maintain the currency of their employees by providing initial and refresher training as required to meet the PWS requirements.

The Contractor **shall** make necessary travel arrangements for employees.

2.3.3 Contract Administration

The Contractor **shall** establish processes and assign appropriate resources to effectively administer this contract.

The Contractor **shall** respond to Government requests for contractual actions within five work days.

The Contractor **shall** assign work effort and maintain proper and accurate time keeping records of personnel assigned to work on this contract.

2.3.4 Quality Assurance Surveillance Plan (QASP)

The Government will evaluate the contractors performance under this contract in accordance with the Quality Assurance Surveillance Plan (QASP) provided as an attachment to this proposal.

The QASP is focused on what the Government will do to ensure that the contractor has performed in accordance with the performance standards. It defines how the performance standards will be applied, the frequency of surveillance, and the minimum acceptable defect rate(s).

2.4 Contractor Furnished Equipment, Materials, Subcontracts and Supplies

Equipment and unexpended materials and supplies purchased by the contractor under this contract become the property of the Government at the end of the performance period, including all options.

The Contractor **shall** provide supplies for contractor personnel.

The Contractor **shall** provide any other equipment, material, and supplies, not furnished by the Government, but required to perform the work defined under Paragraph 3, Performance Requirements, below.

The Contractor **shall** be responsible for any subcontract management necessary for performing efforts described in Paragraph 3, Performance Requirements, below.

2.5 Contractor Personnel, Disciplines, and Specialties

The minimum education, training, and experience required by contractor personnel to perform support tasks identified in this PWS are defined in the labor category descriptions provided in Attachment (2) of the Request for Proposal (RFP)

2.6 Travel / Temporary Duty (TDY)

Travel to other government facilities or contractor facilities may be required for conduct of experimental research or attendance at government reviews or scientific meetings and seminars.

The Contractor **shall** submit all travel requirements (including plans, agenda, itinerary and dates) for pre-approval to the Government and is on a strictly cost reimbursable basis.

The Contractor **shall** bill costs for travel in accordance with FAR 31.205-46 Travel Costs (subject to local policy & procedures).

2.7 Facilities and Staffing

The Contractor **shall** have office space and meeting facilities within the Washington, DC local area.

The Contractor **shall** provide and staff facilities for the fabrication, test, and storage of unique fixtures and support equipment required to perform tasks delineated in Section 3 below. Support equipment may include aircraft equipment racks, electrical test equipment (e.g., spectrum analyzers, oscilloscopes), test computers, and test fixtures for mounting instrumentation. Specific equipment lists will be provided with the issuance of task orders.

The Contractor **shall** participate in periodic and informal working group meetings and discussions held at the direction of NRL as required.

3 Performance Requirements

The following section specifies the Performance Objectives and Performance Elements for the contract. (Note: Performance Standards and Deliverables cited in High Level Objectives (Sections 3.1 to 3.10) confer to the subtasks under each section.)

3.1 HICO-RAIDS Experiment Payload (HREP) Operations

HICO-RAIDS Experiment Payload (HREP) is a combination of two instruments: Hyperspectral Imager for the Coastal Ocean (HICO) and the Remote Atmospheric Ionospheric Detection System (RAIDS). HREP is attached to the Japanese Exposed Facility (JEM-EF) on the International Space Station (ISS).

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from HREP Operations and Data Analysis technical efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.1.1 The Contractor shall conduct mission operations support for the HICO instrument.

Mission operations support includes interfacing with NASA to upload the HICO command schedule to the instrument; requesting and downloading HICO imagery data and state of health (SOH) data from the NASA mission data storage facility at the Marshall Space Flight Center; processing the HICO imagery data and transmitting it to the Remote Sensing Division Coastal and Ocean Remote Sensing Branch (NRL Code 7230) via FTP; anomaly tracking and resolution; and performing general troubleshooting as necessary. Mission operations also include trending of HICO State-of-Health (SOH), anomaly record keeping, and maintaining a backup of all HICO related data collected.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Completeness

AQL: Provides continuous operations

c) STD: Effective

AQL: Minimize down time due to system anomalies

Deliverables

A007 Other Data Deliverables; all STDs

3.1.2 The Contractor shall interact with Air Force HREP Test Team located at Johnson Space Center (JSC) to coordinate HICO mission operations for conduct of combined HICO/HREP operations.

Coordination with the Air Force HREP team at JSC is necessary when HICO mission operations requires an emergency command window to reset the HICO computer in case of a lockup; arranging equipment demonstrations and tests; configuration changes or acquisition of new systems; developing combined HREP mission SOH and HICO instrument performance assessments/reports; and providing day-to-day user support that may impact combined HICO mission / HREP Team operations.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Completeness

AQL: Provides continuous operations

c) STD: Effective

AQL: Minimize down time due to system anomalies

Deliverables

A005 Contract Funded Technical Tools and Data; all STD

A007 Other Data Deliverables; all STDs

3.2 Passive Microwave Sensor Engineering

Engineering support, in addition to the specified effort required by the following tasks, includes development of mechanical, electrical and functional test documents; development of test plans and procedures for integration and test of experiments, payloads, and subsystems; performance of system level environmental and functional testing and implementation of corrective actions where necessary; conduct of natural environmental stress (thermal, vacuum, EMC, shock and vibration, and calibration) tests; provision of personnel and material resources for integration of flight instruments with host vehicle/platforms; and design and development of pre-launch, post-launch, and flight operations test procedures and manuals for both GFE supplied or Contractor supplied instruments.

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from Passive Microwave Sensing technical efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.2.1 The Contractor shall perform mechanical, RF, electronic, electrical, and software design analysis of instruments and support equipment for ground-based, airborne, and space-based passive remote microwave sensors.

The atmosphere above the atmospheric boundary includes the upper troposphere, stratosphere, mesosphere, and ionosphere.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Comprehensive

AQL: Address findings, key issues and recommendations resulting from design analysis efforts.

Deliverables

A004 Technical Reports; all STDs

3.2.2 The Contractor shall perform engineering tasks to test, calibrate, and integrate passive microwave remote sensors and their associated support equipment for installation in host vehicle/platforms.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Timely

AQL: Documentation delivered coincident with operating hardware.

c) STD: Comprehensive

AQL: Provides sufficient detail to build additional instruments if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.2.3 The Contractor shall design, acquire, and modify ground support equipment (GSE) for use in conducting integration and test of passive microwave remote sensing instruments.

Typical GSE elements include electronics for remote command, control, and data acquisition, and the associated interfaces; mechanical support structures; wiring harnesses; and test equipment articles.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Meets technical specifications

AQL: 100%

c) STD: Comprehensive

AQL: Provides sufficient detail to build additional copies if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.3 Passive Microwave Data Handling Software

The *WindSat* passive microwave radiometer measures brightness temperatures at vertical and horizontal polarizations centered on 5 atmospheric window frequencies between 6 and 37 GHz, and is fully polarimetric at three of these frequencies. The primary objective of *WindSat* is to demonstrate the feasibility of using passive microwave polarimetry to measure the ocean surface wind vector, as well as other geophysical parameters including sea surface temperature, columnar cloud liquid water, and columnar precipitable water.

APMIR is an airborne passive microwave polarimeter used for calibrating and validating the *WindSat* measurements and models. *WindSat* is also serving as a pathfinder for future DoD space-based passive microwave sensors.

The primary focus of this task is data analysis and software development for the *APMIR*, and *WindSat* missions as well as future DoD microwave sensors for remote sensing of land, sea, and air scenes.

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from Passive Microwave Sensing technical efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.3.1 The Contractor shall develop data processing software for calibration and processing of passive microwave data.

Data processing software for this task includes conversion of raw passive microwave measurements into calibrated, geo-located brightness temperatures, retrieval of selected

environmental parameters from brightness temperature data, and integration of the "brightness temperature data" algorithms/software into passive microwave instrument software.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Completeness

AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal.

c) STD: Comprehensive

AQL: Provides enough information for the Government to maintain configuration control of the software artifacts

Deliverables

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.3.2 The Contractor shall develop data processing software for analysis of passive microwave data products.

Data processing software in this task includes software for sensor calibration, environmental parameter data product validation, geo-location validation, and sensor state of health (SOH) trending and evaluation.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Completeness

AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal.

c) STD: Comprehensive

AQL: Provides enough information for the Government to maintain configuration control of the software artifacts

Deliverables

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.3.3 The Contractor shall implement software configuration management and control for passive microwave data handling software developed under this task.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule.

b) STD: In accordance with Contractor supplied and COR approved Software Configuration Management and Control Plan

AQL: 100%

Deliverables

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.4 Synthetic Aperture Radar (SAR)/Interferometric Synthetic Aperture Radar (ISAR) Systems Support

SAR/ISAR techniques are used to measure radar backscatter from the ocean surface. The radars are mounted on both ground-based and airborne platforms.

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from SAR/ISAR technical efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.4.1 The Contractor shall maintain mechanical and electrical/electronic systems for airborne and ground-based SAR/ISAR radar mounts.

Performance Standards

a) STD: Identifies and corrects deficiencies

AQL: 100%

b) STD: Provides for continuous operation

AQL: 95% no impact to system operations/test schedules

Deliverables

A003 Quarterly Progress Report; all STDs

3.4.2 The Contractor shall modify, design, and acquire equipment for use in conducting integration and test of SAR/ISAR sensors.

Typical elements include electronics for remote command, control, and data acquisition, and the associated interfaces; mechanical support structures; wiring harnesses; and test equipment articles,

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Meets technical specifications

AQL: 100%

c) STD: Comprehensive

AQL: Provides sufficient detail to build additional copies if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.5 Fluid Flow Phenomena Research

3.5.1 The Contractor shall conduct laboratory test tank and field experiments to analyze, model, and verify fluid flow phenomena for oceans and other natural bodies of water.

Performance Standards

a) STD: Timely

AQL: 15 days after the end of each quarterly period of performance

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 30 days after completion of a specific experiment.

d) STD: Completeness

AQL: Address findings and key issues associated with experiments conducted

e) STD: Timely

AQL: 90 days after completion of the Task Order

f) STD: Comprehensive

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from research conducted examining fluid flow phenomena in micro- and macro environments.

Deliverables

A002 Quarterly Progress Report; STDs a, b
A004 Technical Reports; STDs c, d
A008 Final Report; STDs e, f

3.6 Aerosol and Cloud Processes Research

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from conducting Aerosol and Cloud Processes Research efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b
A008 Final Report; STDs c, d

3.6.1 The Contractor shall conduct research and development studies to evaluate computer models of marine aerosols and cloud processes.

Studies include assessment of both contractor developed and GFE models.

Performance Standards

a) STD: Timely

AQL: 30 days after the completion of evaluation of GFE model.

b) STD: Complete

AQL: Provides complete description of phenomena being investigated and results of specified modeling effort.

Deliverables

A004 Technical Reports; all STDs

3.6.2 The Contractor shall conduct research and development studies to improve and expand software models for simulating marine aerosol and cloud processes.

Studies include assessment of both contractor developed and government furnished models.

Performance Standards

a) STD: Timely

AQL: 30 days after delivery of improved/expanded model.

b) STD: Complete

AQL: Provides complete description of phenomena being investigated and results of specified modeling effort.

c) STD: Comprehensive

AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal.

Deliverables

A004 Technical Reports; STDs a, b

A006 Software, Algorithms, Programs, and Source Code, STDs a, c

3.6.3 The Contractor shall develop or modify GFE provided aerosol and cloud process algorithms for use in future Aerosol Particle Size (APS) and Visible Infrared Imager Radiometer Suite (VIIRS) instruments.Performance Standards

a) STD: Timely

AQL: 30 days after completion algorithm development effort.

b) STD: Comprehensive

AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal.

Deliverables

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.6.4 The Contractor shall conduct marine aerosol and cloud processes field measurement experiments for determining their effects on natural and artificial optical radiation.

Field measurements include surface measurements of sky radiance and direct solar irradiance.

Performance Standards

a) STD: Timely

AQL: 30 days after completion of a specific field measurement experiment.

b) STD: Complete

AQL: Address findings, key issues and recommendations resulting from field measurement experiment.

Deliverables

A004 Technical Reports; all STDs

3.7 Upper Atmospheric Remote Sensor Engineering Support

Systems engineering support, in addition to the specified effort required by the following tasks, includes development of mechanical, electrical and functional test documents; development of test plans and procedures for integration and test of experiments, payloads, and subsystems; performance of system level environmental and functional testing and implementation of corrective actions where necessary; conduct of natural environmental stress (thermal, vacuum, EMC, shock and vibration, and calibration) tests; provision of personnel and material resources for integration of flight instruments with host vehicle/platforms; and design and development of pre-launch, post-launch, and flight operations test procedures and manuals for both GFE supplied or Contractor supplied instruments.

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a monthly reporting period.

b) STD: Completeness

AQL: Reflects resources assigned and hours worked on this task.

c) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

d) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

e) STD: Timely

AQL: 90 days after completion of the Task Order

f) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from conducting Upper Atmospheric Remote Sensor Engineering efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.7.1 The Contractor shall perform optical, electronic, mechanical, and thermal design analysis of instruments and support equipment for ground-based remote sensing the atmosphere above the atmospheric boundary, space-based, and airborne.

The atmosphere above the atmospheric boundary includes the upper troposphere, stratosphere, mesosphere, and ionosphere.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Comprehensive

AQL: Address findings, key issues and recommendations resulting from design analysis efforts.

Deliverables

A004 Technical Reports; all STDs

3.7.2 The Contractor shall perform engineering tasks to fabricate, test, calibrate, and integrate upper atmospheric sensing instruments and their associated support equipment for installation in host vehicle/platforms.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Timely

AQL: Documentation delivered coincident with operating hardware.

c) STD: Completeness

AQL: Provides sufficient detail to build additional instruments if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.7.3 The Contractor shall design, acquire, and modify ground support equipment (GSE) for use in conducting integration and test of upper atmosphere remote sensing instruments.

Typical GSE elements include electronics for remote command, control, and data acquisition, and the associated interfaces; mechanical support structures; wiring harnesses; and test equipment articles.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Meets technical specifications

AQL: 100%

c) STD: Comprehensive

AQL: Provides sufficient detail to build additional copies if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.7.4 The Contractor shall conduct operations support of installed remote sensing instruments for monitoring the upper atmospheric environment.

Operations support includes coordinating with host platform/vehicle operations centers, conduct of general troubleshooting and resolution of anomalies, monitoring and reporting on instrument state-of-health, and providing output data to users/customers.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Completeness

AQL: Provides continuous operations

c) STD: Effective

AQL: Responds to re-tasking

d) STD: Effective

AQL: Outages scheduled to minimize impact to operations

Deliverables

A007 Other Data Deliverables; all STDs

3.8 Radio, Infrared (IR), and Optical Astronomy Sensor Systems Engineering and Operations Support

Systems engineering support, in addition to the specified effort required by the following tasks, includes development of mechanical, electrical and functional test documents; development of test plans and procedures for integration and test of experiments, payloads, and subsystems; performance of system level environmental and functional testing and implementation of corrective actions where necessary; conduct of natural environmental stress (thermal, vacuum, EMC, shock and vibration, and calibration) tests; provision of personnel and material resources for integration of flight instruments with host vehicle/platforms; and design and development of pre-launch, post-launch, and flight operations test procedures and manuals for both GFE supplied or Contractor supplied instruments.

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from conducting SE and Operations support of Radio, IR, and Optical Astronomy sensors.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.8.1 The Contractor shall perform optical, electronic, mechanical, and thermal design analysis of instruments and support equipment for space-based, airborne, and ground-based multispectral astronomic sensors.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Comprehensive

AQL: Address findings, key issues and recommendations resulting from design analysis efforts.

Deliverables

A004 Technical Reports; all STDs

3.8.2 The Contractor shall perform engineering tasks to fabricate, test, calibrate, and integrate multispectral astronomic sensors for installation in host vehicle/platforms.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Timely

AQL: Documentation delivered coincident with operating hardware.

c) STD: Completeness

AQL: Provides sufficient detail to build additional instruments if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.8.3 The Contractor shall design, acquire, and modify ground support equipment (GSE) for use in conducting integration and test of astronomical sensors.

Typical GSE elements include electronics for remote command, control, and data acquisition, and the associated interfaces; mechanical support structures; wiring harnesses; and test equipment articles.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Meets technical specifications

AQL: 100%

c) STD: Comprehensive

AQL: Provides sufficient detail to build additional copies if required.

Deliverables

A005 Contracted Funded Technical Tools and Data; all STDs

A006 Software, Algorithms, Programs, and Source Code; all STDs

3.8.4 The Contractor shall conduct operations support of installed remote sensing instruments for conducting radio, infrared, and optical astronomy.

Operations support includes coordinating with host platform/vehicle operations centers, conduct of general troubleshooting and resolution of anomalies, monitoring and reporting on instrument state-of-health, and providing output data to users/customers.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Completeness

AQL: Provides continuous operations

c) STD: Effective

AQL: Responds to re-tasking

d) STD: Effective

AQL: Outages scheduled to minimize impact to operations

Deliverables

A007 Other Data Deliverables; all STDs

3.9 Information Technology Support

Performance Standards

a) STD: Timely

AQL: 15 days after the end of a quarterly reporting period.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from Information Technology Support technical efforts.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.9.1 The Contractor shall provide Information Technology (IT) systems support for UNIX, Microsoft Windows, Linux, and Macintosh workstations.

Systems support includes: (1) providing hardware and software maintenance for selected computational systems; (2) recommending, acquiring, and implementing hardware/software solutions; (3) performing upgrades of hardware/software to meet division performance and capability needs when requested; (4) configuration management of division computer systems/software; (5) maintaining system component accountability records; (6) managing user accounts; (7) performing data backup as required; and (8) managing scheduled maintenance and maintenance agreements.

Performance Standards

- a) STD: Provides Quarterly IT Systems Management Report
AQL: 15 days after the end of a quarterly reporting period.
- b) STD: Implementation complies with NRLINST 5239.1 Information Systems Security Plan
AQL: 100%
- c) STD: Responsive to COR requests for new or updated computer hardware/software
AQL: In accordance with established schedule
- d) STD: All repairs and PM is done so as to minimize impact with the function of the facility.
- e) STD: Performs Configuration Management functions in accordance with NRL local instructions.

Deliverables

A007 Other Deliverables; all STDs

3.9.2 The Contractor shall maintain, develop, and implement web services for the Remote Sensing Division (NRL Code 7200).

Web services include: maintenance of existing web sites and databases, including the design, testing, and implementation of enhancements, adding new modules, and fixing bugs in a short timeframe; (2) designing and testing new web sites and databases to support specific program needs; and (3) communicating specified information to COR-designated parties via government LAN/WAN networks and the general public via the internet.

Performance Standards

- a) STD: Provides Quarterly IT Systems Management Report
AQL: 15 days after the end of a quarterly reporting period.
- a) STD: Responsive to COR requests for new or updated Web functionality
AQL: In accordance with established schedule
- b) STD: Implementation complies with NRLINST 5239.1 Information Systems Security Plan

AQL: 100%

c) STD: Meets Information Assurance requirements of DOD 5220.22-M National Industrial Security Program Manual (NISPOM)

AQL: 100%

d) STD: Identifies and corrects deficiencies and failures

AQL: 95% corrected within one day of notification

e) STD: Displays program documentation, review packages, address listings, program schedules, and other designated information

AQL: Available 24/7; easily searchable; updated daily/weekly as required

Deliverables

A007 Other Data Deliverables; all STDs

3.10 Technical Documentation Development and Program Review Support

Performance Standards

a) STD: Timely

AQL: 15 days after the end of each quarterly period of performance.

b) STD: Completeness

AQL: Address interim results, meetings/reviews attended, problems or issues encountered

c) STD: Timely

AQL: 90 days after completion of the Task Order

d) STD: Complete

AQL: Addresses key issues in developing technical documentation and supporting program/technical reviews.

Deliverables

A002 Quarterly Progress Report; STDs a, b

A008 Final Report; STDs c, d

3.10.1 The Contractor shall assist in developing system design documentation for use at assigned system design reviews.

System design documentation includes Hardware/Software Design Specifications, Interface Control Documents (ICS), Test Plans, Test Procedures, Test Reports, Parts Lists, and Drawing Packages describing system baselines prior for major system design reviews such as System Requirements Review (SRR), Preliminary Design Reviews (PDR), Critical Design Reviews (CDR), Test Readiness Reviews (TRR) and other technical reviews as required.

Performance Standards

a) STD: Timely

AQL: In accordance with schedule established to support assigned technical/program review

b) STD: Complete

AQL: Provides sufficient detail to allow decision objectives of the assigned review to be met.

c) STD: Accuracy

AQL: Less than 5% errors requiring document revision.

Deliverables

A007 Other Data Deliverables; all STDs

3.10.2 The Contractor shall attend system design reviews to present technical assessments of design solutions and recommend a preferred design solution for assigned systems.Performance Standards

a) STD: Timely

AQL: 5 days after assigned technical/program review.

b) STD: Accuracy

AQL: Reflects recommendations made (accepted/rejected) and provides rational/data supporting subject recommendations.

Deliverables

A007 Other Data Deliverables; all STDs

3.10.3 The Contractor shall assist in developing acquisition technical documentation and requests for proposals for new programs of opportunity.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Complete

AQL: Addresses all program areas

Deliverables

A007 Other Data Deliverables; all STDs

3.10.4 The Contractor shall create computer graphic illustrations, drawings, and other graphic material for inclusion in studies, proposals, and program and technical presentations.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule.

b) STD: Accuracy

AQL: 5% error rate on initial delivery; 0% error rate on final

c) STD: Completeness

AQL: Includes all necessary data in the designated format

Deliverables

A007 Other Data Deliverables; all STDs

3.10.5 The Contractor shall design and develop test procedures and manuals for instrument pre-launch, post-launch, and flight operations.

Performance Standards

a) STD: Timely

AQL: In accordance with established schedule

b) STD: Complete

AQL: Addresses all program areas

Deliverables

A007 Other Data Deliverables; all STDs

4 Special Requirements

This section describes the special requirements for this effort. The following sub-sections provide details of various considerations on this effort.

4.1 Security

All Contractor personnel shall possess a favorably completed DoD investigation and a final DoD granted Secret security at time of proposal submission. Detailed security requirements are delineated in the issued DD 254s relevant to this contract. The Contractor shall ensure that all classified material is handled in accordance with the issued DD 254, the National Security Program Operating Manual (NISPOM) (DoD 5220.22M and all NRL and applicable Security Program Guides/Directives.

4.1.1 Information Assurance and Systems Security

The Contractor **shall** comply with the requirements of NRLINST 5239.1 Information Systems Security Plan (as revised) when using the NRL Integrated Communications Environment Network (NICEnet) and other local area networks and wide area networks (LAN/WAN).

4.1.2 Identification (ID) Badges and Vehicle Passes

The Government will issue ID badges and vehicle passes to Contractor personnel working at NRL and the BPTF site in accordance with the requirements of Paragraph 1(b) BADGES AND VEHICLE PASSES of the NRL ROSC. A favorable trustworthiness determination is required in order for nominated contractor personnel to be granted access to NRL facilities and issued an NRL badge. NRL issued Contractor badges will be worn and readily visible at all times while contractor personnel are on NRL facilities.

The Contractor **shall** provide all requested information required to facilitate the use and possession of badges and vehicle passes.

The Contractor **shall** ensure the immediately return all ID badges issued to Contractor employees under any of the following conditions completion of contract, relocation or termination of an employee, or upon request of the Contracting Officer or Contracting Officer's Representative.

4.2 Safety

The contractor **shall** comply with safety requirements contained in NRL ROSC document, dated 8 December 2008.

4.3 Applicable Directives

The Mandatory document list is a list of documents that have been cited by specific paragraph reference in Sections 2, 3, and 4 above for compliance. Compliance with documents listed as non-mandatory and non-referenced sections of the mandatory documents is at the contractors' option.

Mandatory document (list)

FAR Part 31 Section 205-46 Travel Costs

FAR Part 37 Services Contracting dated 31 May 2011

Naval Research Lab Requirements for On-site Contractors dated 08 Dec 2012

NRLINST 5239.1 Information Systems Security Plan

DOD 5220.22-M National Industrial Security Program Manual

Non-Mandatory document (list)

Version Description Document Guide (See Attachment J)

5 Deliverables

The contractor **shall** provide deliverables with the schedule and format as described in section 3.0 of this contract and outlined in the CDRL's listed below.

Identifier	Name	Description
A001	Monthly Cost Report	Reports current and cumulative labor expenditures.
A002	Quarterly Progress Report	Reports technical progress during the quarter and summarize any problems or concerns.
A003	Contractor On-Site Labor Report	Reports Contractor's labor when working at NRL or Blossom Point Tracking Facility.
A004	Technical Reports	Reports submitted periodically

for the purpose of providing technical documentation.

A005	Contracted Funded Technical Tools and Data	Reports submitted periodically for the purpose of providing technical Tools and Data; all STDs such as designs, test plans, drawings studies etc. as detailed in the remarks section of CDRL A005.
A006	Software, Algorithms, Programs, and Source Code	Provides copies of software and data developed under this contract. Software delivery includes a version description document (see Attachment J)
A007	Other Data Deliverables	Provide other data deliverable not otherwise specified under any of the other CRDLs.
A008	Final Report	Summarizes the technical and scientific objectives, findings and recommendations for the entire contract period.

6 Acronyms

Term	Meaning
APS	Aerosol Particle Size
AQL	Acceptable Quality Level
BPTF	Blossom Point Tracking Facility
CMP	Contract Management Plan
COR	Contracting Officer's Representative
EMC	Electromagnetic Compatibility
FTP	File Transfer Protocol
GFE	Government Furnished Equipment
GSE	Ground Support Equipment
HICO	Hyperspectral Imager for the Coastal Ocean
HREP	HICO-RAIDS Experiment Payload
ISAR	Interferometric Synthetic Aperture Radar
ISS	International Space Station
IT	Information Technology

Term	Meaning
KO	Contracting Officer
NISPOM	National Industrial Security Program Manual
NRL	Naval Research Lab
PI	Principle Investigator
PWS	Performance Work Statement
QASP	Quality Assurance Surveillance Plan
R&D	Research and Development
RAIDS	Remote Atmospheric Ionospheric Detector
RF	Radio Frequency
ROSC	Requirements for On-Site Contractors
SAR	Synthetic Aperture Radar
SOH	State of Health
STD	Standard
UAV	Unmanned Airborne Vehicle
VDD	Version Description Document
VIIRS	Visible Infrared Imager Radiometer Suite

Performance Requirement Summary (PRS)

Statements	Standards/AQLs
3.1 HICO-RAIDS Experiment Payload (HREP) Operations	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 90 days after completion of the Task Order d) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from HREP Operations and Data Analysis technical efforts.
3.1.1 The Contractor shall conduct mission operations support for the HICO instrument.	a) Timely AQL: In accordance with established schedule b) Completeness AQL: Provides continuous operations c) Effective AQL: Minimize down time due to system anomalies
3.1.2 The Contractor shall interact with Air Force HREP Test Team located at Johnson Space Center to coordinate HICO mission operations for conduct of combined HICO/HREP operations.	a) Timely AQL: In accordance with established schedule b) Completeness AQL: Provides continuous operations c) Effective AQL: Minimize down time due to system anomalies
3.2 Passive Microwave Sensor Engineering	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 90 days after completion of the Task Order d) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from

Statements	Standards/AQLs
	Passive Microwave Sensing technical efforts.
3.2.1 The Contractor shall perform mechanical, RF, electronic, electrical, and software design analysis of instruments and support equipment for ground-based, airborne, and space-based passive remote microwave sensors.	a) Timely AQL: In accordance with established schedule b) Comprehensive AQL: Address findings, key issues and recommendations resulting from design analysis efforts.
3.2.2 The Contractor shall perform engineering tasks to test, calibrate, and integrate passive microwave remote sensors and their associated support equipment for installation in host vehicle/platforms.	a) Timely AQL: In accordance with established schedule b) Timely AQL: Documentation delivered coincident with operating hardware. c) Comprehensive AQL: Provides sufficient detail to build additional instruments if required.
3.2.3 The Contractor shall design, acquire, and modify ground support equipment (GSE) for use in conducting integration and test of passive microwave remote sensing instruments.	a) Timely AQL: In accordance with established schedule b) Meets technical specifications AQL: 100% c) Comprehensive AQL: Provides sufficient detail to build additional copies if required.
3.3 Passive Microwave Data Handling Software	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 90 days after completion of the Task Order d) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from Passive Microwave Sensing technical efforts.

Statements	Standards/AQLs
3.3.1 The Contractor shall develop data processing software for calibration and processing of passive microwave data.	a) Timely AQL: In accordance with established schedule b) Completeness AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal. c) Comprehensive AQL: Provides enough information for the Government to maintain configuration control of the software artifacts.
3.3.2 The Contractor shall develop data processing software for analysis of passive microwave data products.	a) Timely AQL: In accordance with established schedule b) Completeness AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal. c) Comprehensive AQL: Provides enough information for the Government to maintain configuration control of the software artifacts.
3.3.3 The Contractor shall implement software configuration management and control for passive microwave data handling software developed under this task.	a) Timely AQL: In accordance with established schedule. b) In accordance with Contractor supplied and COR approved Software Configuration Management and Control Plan AQL: 100%
3.4 Synthetic Aperture Radar (SAR)/Interferometric Synthetic Aperture Radar (ISAR) Systems Support	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 90 days after completion of the Task Order d) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from SAR/ISAR technical efforts.
3.4.1 The Contractor shall maintain mechanical and electrical/electronic	a) Identifies and corrects deficiencies AQL: 100%

Statements	Standards/AQLs
systems for airborne and ground-based SAR/ISAR radar mounts.	b) Provides for continuous operation AQL: 95% no impact to system operations/test schedules
3.4.2 The Contractor shall modify, design, and acquire equipment for use in conducting integration and test of SAR/ISAR sensors.	a) Timely AQL: In accordance with established schedule b) Meets technical specifications AQL: 100% c) Comprehensive AQL: Provides sufficient detail to build additional copies if required.
3.5 Fluid Flow Phenomena Research	
3.5.1 The Contractor shall conduct laboratory test tank and field experiments to analyze, model, and verify fluid flow phenomena for oceans and other natural bodies of water.	a) Timely AQL: 15 days after the end of each quarterly period of performance b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 30 days after completion of a specific experiment. d) Completeness AQL: Address findings and key issues associated with experiments conducted e) Timely AQL: 90 days after completion of the Task Order f) Comprehensive AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from research conducted examining fluid flow phenomena in micro- and macro environments.
3.6 Aerosol and Cloud Processes Research	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely

Statements	Standards/AQLs
	<p>AQL: 90 days after completion of the Task Order</p> <p>d) Complete</p> <p>AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from conducting Aerosol and Cloud Processes Research efforts.</p>
<p>3.6.1 The Contractor shall conduct research and development studies to evaluate computer models of marine aerosols and cloud processes.</p>	<p>a) Timely</p> <p>AQL: 30 days after the completion of evaluation of GFE model.</p> <p>b) Complete</p> <p>AQL: Provides complete description of phenomena being investigated and results of specified modeling effort.</p>
<p>3.6.2 The Contractor shall conduct research and development studies to improve and expand software models for simulating marine aerosol and cloud processes.</p>	<p>a) Timely</p> <p>AQL: 30 days after delivery of improved/expanded model.</p> <p>b) Complete</p> <p>AQL: Provides complete description of phenomena being investigated and results of specified modeling effort.</p> <p>c) Comprehensive</p> <p>AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal.</p>
<p>3.6.3 The Contractor shall develop or modify GFE provided aerosol and cloud process algorithms for use in future Aerosol Particle Size (APS) and Visible Infrared Imager Radiometer Suite (VIIRS) instruments.</p>	<p>a) Timely</p> <p>AQL: 30 days after completion algorithm development effort.</p> <p>b) Comprehensive</p> <p>AQL: Contains at least the information identified in the Version Description Guide provided as an attachment to this proposal.</p>
<p>3.6.4 The Contractor shall conduct marine aerosol and cloud processes field measurement experiments for determining their effects on natural and artificial optical radiation.</p>	<p>a) Timely</p> <p>AQL: 30 days after completion of a specific field measurement experiment.</p> <p>b) Complete</p> <p>AQL: Address findings, key issues and recommendations resulting from field measurement experiment.</p>
<p>3.7 Upper Atmospheric Remote Sensor</p>	<p>a) Timely</p> <p>AQL: 15 days after the end of a monthly reporting period.</p>

Statements	Standards/AQLs
Engineering Support	b) Completeness AQL: Reflects resources assigned and hours worked on this task. c) Timely AQL: 15 days after the end of a quarterly reporting period. d) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered e) Timely AQL: 90 days after completion of the Task Order f) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from conducting Upper Atmospheric Remote Sensor Engineering efforts.
3.7.1 The Contractor shall perform optical, electronic, mechanical, and thermal design analysis of instruments and support equipment for ground-based remote sensing the atmosphere above the atmospheric boundary, space-based, and airborne.	a) Timely AQL: In accordance with established schedule b) Comprehensive AQL: Address findings, key issues and recommendations resulting from design analysis efforts.
3.7.2 The Contractor shall perform engineering tasks to fabricate, test, calibrate, and integrate upper atmospheric sensing instruments and their associated support equipment for installation in host vehicle/platforms.	a) Timely AQL: In accordance with established schedule b) Timely AQL: Documentation delivered coincident with operating hardware. c) Completeness AQL: Provides sufficient detail to build additional instruments if required.
3.7.3 The Contractor shall design, acquire, and modify ground support equipment (GSE) for use in conducting integration and test of upper	a) Timely AQL: In accordance with established schedule b) Meets technical specifications AQL: 100% c) Comprehensive

Statements	Standards/AQLs
atmosphere remote sensing instruments.	AQL: Provides sufficient detail to build additional copies if required.
3.7.4 The Contractor shall conduct operations support of installed remote sensing instruments for monitoring the upper atmospheric environment.	a) Timely AQL: In accordance with established schedule b) Completeness AQL: Provides continuous operations c) Effective AQL: Responds to re-tasking d) Effective AQL: Outages scheduled to minimize impact to operations
3.8 Radio, Infrared (IR), and Optical Astronomy Sensor Systems Engineering and Operations Support	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 90 days after completion of the Task Order d) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from conducting SE and Operations support of Radio, IR, and Optical Astronomy sensors.
3.8.1 The Contractor shall perform optical, electronic, mechanical, and thermal design analysis of instruments and support equipment for space-based, airborne, and ground-based multispectral astronomic sensors.	a) Timely AQL: In accordance with established schedule b) Comprehensive AQL: Address findings, key issues and recommendations resulting from design analysis efforts.
3.8.2 The Contractor shall perform engineering tasks to fabricate, test, calibrate, and integrate multispectral astronomic sensors for installation in host vehicle/platforms.	a) Timely AQL: In accordance with established schedule b) Timely AQL: Documentation delivered coincident with operating hardware. c) Completeness

Statements	Standards/AQLs
	AQL: Provides sufficient detail to build additional instruments if required.
3.8.3 The Contractor shall design, acquire, and modify ground support equipment (GSE) for use in conducting integration and test of astronomical sensors.	a) Timely AQL: In accordance with established schedule b) Meets technical specifications AQL: 100% c) Comprehensive AQL: Provides sufficient detail to build additional copies if required.
3.8.4 The Contractor shall conduct operations support of installed remote sensing instruments for conducting radio, infrared, and optical astronomy.	a) Timely AQL: In accordance with established schedule b) Completeness AQL: Provides continuous operations c) Effective AQL: Responds to re-tasking d) Effective AQL: Outages scheduled to minimize impact to operations
3.9 Information Technology Support	a) Timely AQL: 15 days after the end of a quarterly reporting period. b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered c) Timely AQL: 90 days after completion of the Task Order d) Complete AQL: Addresses key issues, technical and scientific objectives, findings and recommendations resulting from Information Technology Support technical efforts.
3.9.1 The Contractor shall provide Information Technology (IT) systems support for UNIX, Microsoft Windows, Linux, and Macintosh workstations.	a) STD: Provides Quarterly IT Systems Management Report AQL: 15 days after the end of a quarterly reporting period. b) Implementation complies with NRLINST 5239.1 Information Systems Security Plan AQL: 100% c) Responsive to COR requests for new or updated

Statements	Standards/AQLs
	<p>computer hardware/software AQL: In accordance with established schedule</p> <p>d) All repairs and PM is done so as to minimize impact with the function of the facility.</p> <p>e) Performs Configuration Management functions in accordance with NRL local instructions.</p>
<p>3.9.2 The Contractor shall maintain, develop, and implement web services for the Remote Sensing Division (NRL Code 7200).</p>	<p>a) STD: Provides Quarterly IT Systems Management Report AQL: 15 days after the end of a quarterly reporting period.</p> <p>b) Responsive to COR requests for new or updated Web functionality AQL: In accordance with established schedule</p> <p>c) Implementation complies with NRLINST 5239.1 Information Systems Security Plan AQL: 100%</p> <p>d) Meets Information Assurance requirements of DOD 5220.22-M National Industrial Security Program Manual (NISPOM) AQL: 100%</p> <p>e) Identifies and corrects deficiencies and failures AQL: 95% corrected within one day of notification</p> <p>f) Displays program documentation, review packages, address listings, program schedules, other designated information AQL: Available 24/7; easily searchable; updated daily/weekly as required</p>
<p>3.10 Technical Documentation Development and Program Review Support</p>	<p>a) Timely AQL: 15 days after the end of each quarterly period of performance.</p> <p>b) Completeness AQL: Address interim results, meetings/reviews attended, problems or issues encountered</p> <p>c) Timely AQL: 90 days after completion of the Task Order</p> <p>d) Complete AQL: Addresses key issues in developing technical documentation and supporting program/technical</p>

Statements	Standards/AQLs
	reviews.
3.10.1 The Contractor shall assist in developing system design documentation for use at assigned system design reviews.	a) Timely AQL: In accordance with schedule established to support assigned technical/program review b) Complete AQL: Provides sufficient detail to allow decision objectives of the assigned review to be met. c) Accuracy AQL: Less than 5% errors requiring document revision.
3.10.2 The Contractor shall attend system design reviews to present technical assessments of design solutions and recommend a preferred design solution for assigned systems.	a) Timely AQL: 5 days after assigned technical/program review. b) Accuracy AQL: Reflects recommendations made (accepted/rejected) and provides rational/data supporting subject recommendations.
3.10.3 The Contractor shall assist in developing acquisition technical documentation and requests for proposals for new programs of opportunity.	a) Timely AQL: In accordance with established schedule b) Complete AQL: Addresses all program areas
3.10.4 The Contractor shall create computer graphic illustrations, drawings, and other graphic material for inclusion in studies, proposals, and program and technical presentations.	a) Timely AQL: In accordance with established schedule. b) Accuracy AQL: 5% error rate on initial delivery; 0% error rate on final c) Completeness AQL: Includes all necessary data in the designated format
3.10.5 The Contractor shall design and develop test procedures and manuals for instrument pre-launch, post-launch, and flight operations.	a) Timely AQL: In accordance with established schedule b) Complete AQL: Addresses all program areas

