Marine Acoustics, Inc. is proud to be featured as a subcontractor for the following, "Technical and Scientific Support for the Naval Air Warfare Center AIR 4.5 Avionics Department," contract N00421-04-D-0080. For more information, please call the MAI Contracts Dept. at 401-847-7508.

SECTION C Descriptions and Specifications

SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENTS

C-l STATEMENT OF WORK

1.0 INTRODUCTION

This Statement of Work (SOW) defines the scope of technical and scientific support for research, development, integration, analysis, assessment, and test and evaluation in support of sensor systems for the AIR 4.5 Avionics Department. Tasks performed under this contract will include planning, coordination, technology development, systems definition, systems acquisition, and product support for manned and unmanned platform avionics and sensors in support of the 4.5 Divisions, including Architecture and Systems Engineering, Information Warfare Systems, Flight Information Systems, Electronic Warfare (EW) Systems, RF Sensors, Electro-Optics (EO) and Special Mission Sensors, Airborne Mission Computers, Surface Communications and Information Systems, and Acoustic Systems. The sensor system includes: the sensor, the platform, associated software, and the operational center.

This contract will provide for the development of sensor systems and equipment, which are used for the development, integration, test and evaluation of sensor systems and support subsystem elements. The descriptions of the contract deliverables for the contract are given in Section 3.1 through 3.14. Each effort requires specific deliverables and products along with specific CDRL and Data Item Description (DID) requirements.

1.1 SCOPE

The scope of this contract includes technical and engineering support in the following technology areas.

Avionics Science and Technology: The Contractor shall provide systems engineering and development expertise in analysis; comparative candidate trade-off studies; system, hardware, and software specifications; and the design, development, integration, and test of core avionics. The Contractor shall provide: (1) top level system engineering review of new avionics and electronics; (2) understanding of data communications capabilities; and (3) entertain user and technologists discussions on potential concepts of operations.

Network Centric Warfare (NCW): The Contractor shall review DoD and Navy Department support battle planning at the force and unit levels and conduct analysis in defining fusion of intelligence information requirements to provide a coherent command picture. Assessments shall be made of warfare and mission planning systems; intelligence analysis; processing and evaluation systems; imagery compression and dissemination techniques; and situational awareness and assessment systems in meeting these requirements. The Contractor shall consider development of advanced techniques for optimizing the performance of existing and future systems.

Flight Information Systems: The Contractor shall provide engineering and technical support in the development and maintenance of flight information systems.

EW Systems: The Contractor shall provide engineering and technical support in the development and maintenance of Advanced Electronic Counter-Measures (ECM) for both domestic and Foreign Military Sale (FMS) to include On Board Electro-Optic/Infrared EW Systems, Passive EW Systems, and User File Developmental Test facilities. The Contractor shall provide system engineering in the area of survivability, including design, analysis, and test for the purpose of enhancing the combat survivability of weapon systems.

RF Sensors: The Contractor shall perform engineering design, analysis, and related tasks in the field of Radar and Microwave Technology that advance the state of the art, specifically related to:

Advanced Airborne Antennas
Adaptive Electronic Scan Array Radar Advanced Identification Techniques
Airborne Early Warning Radar Bistatic Radar
Microwave Antennas
Missile Launch Detection
Multistatic Radar
Non-Cooperative Target Recognition Polarimetric Radar
Radar Warning Receivers
Synthetic Aperture Radar
Airborne Shared Aperture Radar
Radar Cross Section Reduction
SAR Image Processing

EO and Special Mission Sensors: The Contractor shall perform sensor and systems research, analysis, development and logistics for existing reconnaissance programs such as Tactical Optical Surveillance System (TOSS), Cluster Ranger, Multi-Band Optical Surveillance System (MBOSS), Smart Hornet Advanced Reconnaissance Pod (SHARP), Tactical Airborne Reconnaissance Pod System (TARPS DI/CD), Counter Drug Upgrade (CDU), Expendable Surveillance Systems, Force Protection Systems and new programs such as Rapid Mount Airborne Sensor System (RMASS), Roll-On, Roll-Off Sensor System for Contingence Airborne Response (OSSCAR), Precision Targeting and Identification - Tornado Integrated Avionics Research Aircraft (PTI Tiara), Advanced Concept Technology Demonstrations, etc. Sensors and systems under this task for use on special mission aircraft, tactical aircraft and unmanned vehicles include, but are not limited to, imagery sensors such as charge-coupled device (CCD) video cameras, electro-optical sensors, data recorders, data link systems, seismic/acoustic, Electronic Signal Measurement (ESM), Signal Intelligence (SIGINT), Light Detection and Ranging Systems (LIDARs), Multi and Hyperspectal Systems, Non-Acoustic Anti-Submarine Warfare (ASW) and Anti-Mine Warfare Systems, Counter-Drug Systems, Night Vision Goggle and Night Vision Flight Station upgrades and systems, magnetic sensing systems, system controllers, forward looking infrared (FLIR),combinations of sensors that improve situational awareness, and low light level TV (LLLTV).

Imagery and Video Systems Software Enhancements: The Contractor shall provide systems engineering and software development for various imagery and video technology enhancement programs in support of Naval and Joint Advanced Tactical Reconnaissance systems. In performing this task, the Contractor shall develop, enhance, and maintain a platform independent image and video exploitation application which will allow imagery and video analysts to review, analyze, process, and generate secondary imagery and video products from the following sources:

National Technical Means
Tactical Reconnaissance Imagery Platforms
Near Real Time Streaming Video and Imagery from Medium Altitude Endurance

(MAE) and High Altitude Endurance (HAE) Unmanned Aerial Vehicles (UAVs)

Other Repositories such as the Image Product Library and Demand Driven Direct Digital Dissemination Server.

Ballistic Missile Defense Surveillance Technology: The Contractor shall provide engineering and technical support in the development and maintenance of systems for the Ballistic Missile Defense Office (BMDO) surveillance and intercept program.

Airborne Mission Computers: The Contractor shall provide engineering support in the design, development, integration, and documentation for airborne central computer/mission computer systems, including operational flight programs.

Acoustic Systems: The Contractor shall provide engineering and technical support in the design, development, integration and maintenance of airborne acoustic systems and sensors. These systems include air-deployed expendable acoustic sensors (sonobuoys) and tethered acoustic sensors (helicopter dipping sonars, towed arrays). The components of these systems include acoustic transducers and impulsive sources, hydrophones and receive arrays, hydro-mechanical suspension, in-sensor signal/information processing, in-sensor command and control processing, energy storage technology, platform based signal/information processing and display, environmental characterization and prediction, and tactical decision aids.

The scope of this contract includes research and development in the performance of:

- Prototype Development and Testing
- Signal Processing Systems Studies and Analyses
- Development of Sensor Systems Simulators
- Integration support of Avionics Systems for Sensor Systems
- Software Development
- Preparation of Technical Documentation
- System Training and In-Service Support
- Analysis and Definition of Sensor and Avionics Systems
- Performance Analysis and Enhancement of Sensor Systems
- Development of Test and Evaluation Requirements for Sensor Systems
- Test and Evaluation of Sensor Systems to include Sea and Flight Test Support
- Preparation, Review, and Maintenance of Sensor Systems Specifications
- Planning for laboratory facilities for Sensors Systems
- Preparation of Project Technical Plans for new and ongoing projects
- Definition of Sensor System and Subsystem requirements
- Concept Definition for Advanced Sensor Systems
- Operational Concept Analyses for Advanced Sensor Systems

2.0 APPLICABLE DOCUMENTS

1) RTCA DO-160D (Current Commercial Avionics Environmental Specification and Test Method)

2) NATOPS Flight Manual for *P-3A/B/C* Pilot, NAVAIR 01-75PAC-l, 15 February 1999

3) NATOPS Flight Manual for *P-3A/B/C* NFO/Aircrew, NAVAIR 01-75PAC-l.l, 15 February 1999

4) POLICY, PROCEDURES AND RESPONSIBILITIES FOR MODIFICATION AND CONFIGURATION CONTROL OF AIR VEHICLES, AIR VEHICLE STORES AND AIR VEHICLE INSTALLED SYSTEMS FOR RESEARCH DEVELOPMENT TEST AND EVALUATION, COMNAVAIRSYSCOM instruction 13050.6, 27 DEC 2002

5) PROCEDURES FOR PLANNING AND COORDINATION OF AIRCRAFT MODIFICATIONS, COMNAVAIRSYSCOM instruction 13050.3, 20 MAR 2002

6) NATOPS Flight Manual Supplement, PILOTINFO/AIRCREW NAVAIR 01-75PACl/l.l SUPP, CHG2 15 APR 2001

7) Project SOPs for Tests of Air Vehicles, Weapons, and Installed Systems, NAVAIR INSTRUCTION 3960AA, 8 June 1999

8) NATOPS General Flight and Operating Instructions, OPNA VINST 371O.1S, November 2001

9) Naval Test Wing Atlantic Instruction, NA VTESTWINGLANTINST 3710.1, 3 November 1998

3.0 REQUIREMENTS

The itemized tasks and descriptions supplied in the following paragraphs represent a high level set of information systems engineering support elements describing typical tasking which may be assigned to the Contractor. This tasking shall be performed by the Contractor in support of a platform or project assignment relating to one or more of the examples listed under the SCOPE paragraph above.
For the majority of the assigned tasks (estimated to be at least 50%), the Contractor personnel will work in conjunction with an Integrated Product Team (IPT). The Contractor shall develop, integrate and test Sensor Systems. There will, however, be tasks where the Contractor shall work independently to develop a specific data product or report to be used in the development of a Sensor System.

3.1 CONTRACT PROGRAM MANAGEMENT

The Contractor shall provide contract program services as delineated below:

3.1.1 Contract Program Management

The Contractor shall provide the following contract program management services:

(a) Project Control

Budget: The Contractor shall maintain cost accounting data (including data on utilization of proposed labor and reimbursable expenses) for: each delivery order and modification under this contract; the overall cost of the entire contract; and ensure that costs are within prescribed limits.

Milestones/Schedules: The Contractor shall monitor work performed against milestones planned to assure that each project objective is met according to schedule.

Purchasing System: The Contractor shall track, manage, and otherwise account for purchases made on behalf of the Government under the authority of this contract with a Purchasing System.

Contract Management Reports (Periodic, recurring submissions of resource expenditures and progress against the applicable planned activities): The Contractor shall provide periodic

progress reports, which cover overall contract status and specific status on each outstanding effort or task.

(b) Documentation of Reimbursable Expenses

The Contractor shall maintain current and accurate documentation of all expenses incurred in the performance of work under the contract. Original receipts and invoices, copies of originals, or summaries of all expenses charged to travel and other direct costs will be made available to the Contracting Officer's Representative (COR) upon request.

3.2 TECHNICAL DEVELOPMENT PLANNING

The Contractor shall perform trade-off analyses, engineering approach analyses, and recommend the specific avionics system development/engineering efforts, facilities, and task requirements necessary to meet technical program objectives and milestones. The Contractor shall define the major milestones, schedules and relevant resource requirements for each phase of a project. The Contractor shall define:

- Project estimating including cost, schedules, manpower, resources, size and Work Breakdown Structure, risk identification, assessment, impact, metrics and mitigation
- Milestones corresponding to tangible products, procurement cycle requirements, or achievement levels, development methodologies and management processes, metrics, tools, configuration and quality control measures\procedures.

3.3 RISK MANAGEMENT

The Contractor shall participate in managing risk to successful project completion. In risk management, the Contractor shall identify and prioritize the areas of risk as High, Medium or Low; identify the risk factors that contribute to the potential occurrence of each risk; document procedures for monitoring and tracking the risk factors and for reducing the likelihood of occurrence of each risk; and identify contingency procedures for each area of risk. The Contractor shall monitor and report to the Government on each area of project risk.

3.4 SYSTEMS ENGINEERING

The Contractor shall participate in the Systems Engineering Process. Typical tasks assigned to the Contractor may include requirements analysis; functional analysis and allocation of functions to system components; systems analysis; and design synthesis. The Contractor shall also perform surveys, impact studies and engineering analyses of mission operational concepts. The Contractor shall define the operational context and develop tactics for each assigned sensor program. The specific requirements of this task are as follows:

3.4.1 Develop Operational Concept Document

The Contractor shall analyze system functional requirements for employment of the Sensor System on a specific platform and document the results in an Operational Concept Document (OCD). The Contractor shall maintain the OCD throughout the system development effort as specified.

3.4.2 Develop Svstem/Subsvstem Specification

The Contractor shall document in a System/Subsystem Specification (SSS) the requirements for the proposed system/subsystem and methods to be used to ensure each requirement is met as the system is tested and ultimately delivered to the user community. The Contractor shall maintain the SSS throughout the system development effort as specified. The Contractor shall address

system interface requirements within the SSS or through the development of an Interface Requirements Specification (IRS).

3.4.3 Test and Integration Planning

The Contractor shall provide input in the development, test and integration plans, and procedures of subsystems, new functions, modes, and architecture or modifications for Sensor Systems. The Contractor shall recommend, based on these analyses, the specific system development, engineering efforts, and requirements necessary to meet program objectives and milestones for each Sensor System and test platform. The Contractor shall provide support in the development of Analyses of Alternatives (AOA), Operational Requirements Documents (ORD), Test and Evaluation Master Plans (TEMP), and other related acquisition inputs.

3.5 RESEARCH AND TECHNICAL ANALYSIS

The Contractor shall provide research and analysis support in the area of processing system studies and analysis. This support shall include, but not be limited to, meteorological and oceanographic analysis, computer-based modeling analysis, and advanced data and signal processing analysis. The Contractor shall analyze techniques as applied to the processing of test data and systems performance improvement.

3.6 FUNCTIONAL AND DESIGN REQUIREMENTS

The Contractor shall perform engineering studies and analyses for the purpose of generating functional and design requirements for sensors and support subsystems. The Contractor shall prepare, from approved operational requirement documents, a detailed mission scenario and time line analysis. The Government will provide the basic scenario requirements. The Contractor shall be prepared to review the scenario data with Fleet operational personnel. The Contractor shall perform a requirements analysis. This analysis shall be based upon a detailed operational scenario and mission time line data. The system functional analysis will be used to analytically derive operator, hardware, and software function partitioning in order to develop system performance requirements. To ensure compliance, the Contractor shall analyze or review all system designs and design documentation that is the result of Contractor or Government delineated requirements.

The Contractor shall also review operational needs, define technical requirements, perform analysis and functional analysis to define avionics systems, performance, architecture, and design constraints. The Contractor shall investigate emerging technologies to identify concepts, system configuration, architecture, and advanced avionics development. The Contractor shall conduct trade-off studies to assess technology alternatives and risks, including life cycle costing.

3.7 AIRCRAFT INTEGRATION ANALYSIS

The Contractor shall perform engineering analysis of Government furnished information pertaining to physical integration of sensors and supporting subsystems on the aircraft.

3.8 TEST AND EVALUATION REQUIREMENTS ANALYSIS

The Contractor shall prepare a test and evaluation requirements analysis which identifies the test activities required to verify attainment of all functional and performance requirements of each sensor and system. This analysis shall include all levels of testing from technology concept demonstration through Technical Evaluation (TECHEV AL). As part of this analysis, the Contractor shall develop and present a test and evaluation matrix that identifies the system functional requirements and the test activities that demonstrate satisfactory compliance. An optimization process shall be performed which will identify those individual tests that may satisfy multiple requirements.

3.9 TEST PLANS AND PROCEDURES

The Contractor shall provide detailed test plans and procedures for test and evaluation activities. For test plans and procedures developed by other activities, the Contractor shall analyze these test plans and procedures and identify their relationship with the test and evaluation requirements matrix. The Contractor shall provide test support at the Naval Air Warfare Center Aircraft Division (NA WCAD) PAX and occasionally at other facilities such as, but not limited to: NA WCAD Key West Detachment, Key West, Florida; USSI, Fort Wayne, Indiana; and Sparton Electronics, DeLeon Springs, Florida. The test support may include sea and flight test support at the various test sites and other CONUS and overseas sites. The Contractor shall provide test support personnel capable of acquiring a flight card. The Contractor shall provide mechanical and electrical engineering support in the areas of test equipment and test site preparation, assistance in conducting sea tests, and assistance in data collection. The Contractor shall analyze, compile, summarize and draw conclusions from test data gathered by DoD and other Contractor agencies related to USW sensor programs. The Contractor shall generate a Test Requirements Satisfaction matrix to relate test results to test requirements.

3.10 DEVELOPMENT FACILITIES

The Contractor shall prepare development facility requirements and associated planning information to support the development, integration and evaluation of new and upgraded sensor technologies and sensor systems into aircraft. The Contractor shall provide the functional design and development of the hardware and software necessary for the laboratory system. The Contractor shall also provide test and validation of the systems necessary to support development and test of the sensor. These systems shall use operational scenarios developed under Section 3.4. These systems shall be fully documented to facilitate operator use, maintenance, and facilities updates as required. Data deliverables shall include user manuals for the facilities and for each system and software program delivered.

3.11 SPECIFICATIONS

- The Contractor shall support the preparation or modification as required of the following specifications: .
- System/Subsystem Specifications
- Operational Requirements Documents, Operational Concept Documents
- Interface Design Specifications and Interface Control Documents
- System Design and Specifications
- Software Requirements Specifications
- Interface Requirement Specifications
- Software Design Description
- Interface Design Description
- Test Plans, Test Procedures, Test Descriptions and Test Reports
- Equipment Procurement Specifications

The format of each technical report shall replicate the format of the respective specification under each review.

3.12 PROTOTYPE DEVELOPMENT AND TESTING

The Contractor shall employ rapid prototyping techniques into the system development process where appropriate for quick assessment of proposed system design and implementation capabilities. The Contractor shall possess the capability of performing design, fabrication, integration, and laboratory/flight testing for the prototyping of electronic packages, enclosures, and mission software packages. This proto typing shall be aimed at reducing schedule, cost, and technical risk prior to entering an acquisition or production phase. It also may be utilized for the rapid development of a hardware/software test or integration tool. Rapid prototyping shall be accomplished on all development avionics equipment and systems where possible.

3.13 SYSTEM TRAINING AND IN-SERVICE SUPPORT

The Contractor shall provide system training and in-service support for fielded avionics equipment, systems, ground support equipment, and facilities, as follows:

- Develop and/or update operator and maintenance manuals and change pages in advance of production issues
- Provide engineering support in the integration and fleet training of changes and enhancement to existing systems
- Prepare training courses and training materials appropriate to the level of training
- Provide cost effectiveness analysis of proposed baseline configuration changes
- Implement configuration change control procedures in accordance with the Configuration Control Plan
- Develop plans and processes to manage and track property and resources

3.14 SOFTWARE DEVELOPMENT

The Contractor shall design, develop, integrate and test the software. This process will utilize in-process reviews, monthly technical and financial status reports based on earned value management principals, and informal demonstrations of functional builds of integrated software. In addition, the Contractor will provide access to configuration management of documentation (including design decisions log and Problem Trouble Reports (PTRs)) that describes the status of the software development as well as deliver test plans and procedures that are used by the Contractor in their software development testing and quality assurance processes.

Subsequent to the delivery and acceptance of the software, the Contractor will also address the documentation that is necessary to support the fleet use of this software as well as the follow on maintenance and support of this software.

3.14.1 General

The Contractor shall create a software development program including design, analyses and testing that results in a software product that will run on the designated computer~ As part of this process, the Contractor shall conduct configuration management and quality assurance of all the software and documentation that is generated during this development. Prior to the delivery of this software, the Contractor will conduct a test of the functionality and interfaces of this software with other platform avionics software products as required. Acceptance of the software will be based on successful testing at the Contractor's or the Government's test facility. These acceptance tests will be conducted according to Contractor generated functional, interface, and system level test procedures. Following acceptance of this software, the Contractor will provide all the source code files, build procedures, test results and procedures as well as a list of all standard and off-the-shelf tool sets necessary to rebuild the executable software products on the Navy's Software Production Facility (SPF) at the NA We. In addition, the Contractor will provide the executable

software that was used during acceptance tests so that duplicate copies can be made for Fleet release.

3.14.2 Requirements Documentation

The Contractor shall maintain and perform configuration management of the OCD. During the software development, the Contractor shall modify these documents to reflect any changes proposed by the contractor and agreed to by the Government.

3.14.3 Software Design

The Contractor shall conduct a series of high level design and detailed design activities and reviews followed by code reviews. The Contractor shall submit the appropriate design documentation for each series of reviews and the results of the reviews based on inspection reporting. This documentation can be accomplished through an electronic media such as e-mail or the Internet.

3.14.4 Software Development

The Contractor shall code software that reflects the implementation that results from software design. Software Integration and Test (SWIT) and Integration and Test (I&T) processes shall be conducted during the software development. Any deficiencies found in the coding shall be documented in Problem Trouble Reports (PTR) and incorporated into a contractor maintained database of PTRs that are available for Government inspection at any time. Government inspection of the PTR database as well as the code databases shall be achieved on-site at the place of performance.

3.14.5 In-Process Reviews

The Contractor shall conduct, as a minimum, quarterly informal in-process reviews of the software design and development activities during the contract period as a means of assessing progress made toward the final software products. As an additional means of determining software development progress, the Government shall be notified of all Contractor designated key Software Integration and Test (SWIT) and Integration and Test (I&T) activities. The Contractor shall provide the Government with at least 10 days notification of all in-process reviews, and significant SWIT, and I&T activities. The Contractor shall submit monthly progress and status reports that must include contractor-generated metrics or technical performance measures that will be used to monitor satisfactory progress toward delivery of the Contractor Line Item Numbers (CLIN). The Contractor shall submit monthly financial status reports based on Earned Value Management Principals.

3.14.6 Test Plans and Procedures

The Contractor shall generate test plans and procedures for conducting functional, interface, and system level testing of the software. The Contractor shall provide the test plans and procedures at a minimum of 30 days prior to the corresponding testing activity for Government review. During testing, the Contractor shall generate and maintain a Software Requirements Verification Matrix (SRVM) which will provide in matrix form a mapping of all specified and defined requirements to a particular test method (inspection, demonstration, or analysis) and specific test procedure.

3.14.7 User Manuals

The Contractor shall generate a Software Reference Manual that shall describe to an operator how to fully use and employ software. The Contractor shall also generate in-flight Handbooks for

each of the stations on the aircraft, describing the use of the software for the appropriate station. These documents may be a revision to the current in-flight Handbook in use by the Fleet.

3.14.8 Testing

The Contractor shall be responsible for all levels of testing in order to ensure that the software products are in compliance with the OCD and SRS documents. Compliance is demonstrated using the SRVM to prove that all requirements have been verified. Additionally, Contractor defined regression testing will verify that the products adhere to the applicable interface design documents as defined in 3.14.2. The standard testing approach to software development shall be used, i.e. unit test, functional, interface, and system level testing and will be conducted at the Contractor's facilities. Acceptance testing will be at the system level and will also be conducted at the Contractor facility.

3.14.8.1 Functional Level Testing

Function testing of the software will be in accordance with the test plan and test procedures generated by the Contractor and reviewed by the Government. The test procedures must be delivered to the Government 30 days prior to the conduct of the test for review. Formal acceptance of these functional test plans and procedures is not required. Functional testing will be conducted at the Contractor's facilities. The Government has the option to witness the functional level series of tests and must be notified at least 10 days prior to the conduct of the tests. Summary results of Functional Level Testing shall be reported in the monthly progress and status reports.

3.14.8.2 Interface Level Testing

Interface testing of the software will be in accordance with the test plans and procedures generated by the Contractor and reviewed by the Government. The test plans and procedures must be delivered to the Government 30 days prior to the conduct of the test for review. Formal acceptance of these interface test plans and procedures is not required.

Interface testing will be conducted at the Contractor's facilities. The Government has the option to witness the interface level series of tests and must be notified at least 10 days prior to the conduct of the tests. Summary results of Interface Level Testing shall be reported in the monthly progress and status reports.

3.14.8.3 System Level Testing

System testing of the software will be in accordance with an integrated set of system level test procedures. The Contractor shall generate system level test procedures that address the functionality. The Contractor shall integrate the testing of the functionality into system level test procedures. The final integrated set of test plans and procedures must be delivered to the Government 30 days prior to the conduct of the test for review and approval. Any discrepancies found in the System Level plans or procedures will be resolved at an executive board level comprised of both Navy and Contractor personnel 10 days prior to the commencement of the tests. System testing will be conducted at the Contractor's facilities. The Government has the option to witness the system level series of tests and must be notified at least 10 days prior to the conduct of the tests. The test procedures should be generated such that minimal if any analysis is required following the test and the results of the tests should be available for Government review.

3.14.8.4 Acceptance Testing

The final version of software designated will be used for acceptance testing in the Contractor's facility. In addition any known deficiencies associated with the software will be identified and fully explained in the PTR database. The Contractor will be responsible for generating

acceptance level test plans and procedures that shall include regression test procedures as well. The Contractor shall deliver the complete acceptance test plans and procedures to the Navy 30 days prior to the test for review and approval. Any discrepancies found in the System Level plans or procedures will be resolved at an executive board level comprised of both Navy and Contractor personnel 10 days prior to the commencement of the tests. System testing will be conducted at the Contractor's facilities. The Government must be present to witness the system level series of tests and must be notified at least 10 days prior to the conduct of the tests. The test procedures should be generated such that minimal if any analysis is required following the test and the results of the tests should be available for Government review no greater than 30 days following the test.

3.14.9 Delivery and Acceptance

The final version of software shall be on a media that is supported by the Government.

The acceptance criteria to be used for the final software will be as follows:

Severity Limit	
Priority 1	0
Priority 2	0
Priority 3	1 per 2500 equivalent source statements or fraction thereof
Priority 4	1 per 1500 equivalent source statements or fraction thereof

For purposes of this Contract the above Priority Severity levels are defined as:

(1) Priority 1 A software problem that does one of the following:

a. Prevents the accomplishment of an operational or mission essential capability specified by baselined requirements.

b. Prevents the operator's accomplishment of an operational or mission essential capability.

c. Jeopardizes personnel safety.

(2) Priority 2 A software problem that does one of the following:

a. Adversely affects the accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which no alternative work-around solution is known.

b. Adversely affects the operator's accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which no alternative work-around solution is known.

(3) Priority 3 A software problem that does one of the following:

a. Adversely affects the accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which an alternative work-around solution is known.

b. Adversely affects the operator's accomplishment of an operational or mission essential capability specified by baselined requirements so as to degrade performance and for which an alternative work-around solution is known.

(4) Priority 4 A software problem that is an operator inconvenience or annoyance and which does not affect a required operational or mission essential capability.

For any Priority 3 defects, the Contractor must identify the work around solutions to these defects, which must be demonstrated for testing purposes. The Contractor may request a deviation waiver from these acceptance criteria but must prove and justify that performance is not compromised and is at an acceptable level. The Contractor must also provide an estimate of additional cost to be assumed by the Navy if a deviation waiver is not granted. Any deviation waiver must have the approval of the Government.

3.15 DELIVERABLE DOCUMENTATION

The Contractor shall submit to the cognizant Project Engineer via the COR all the respective deliverable documentation. The deliverable documents shall be provided as a hard copy and on an agreed to electronic medium. The electronic format shall be compatible with the version of Microsoft Office used by the document recipient. Specific delivery orders may require delivery of additional data items.

DELIVERY OF DATA

	Description	CDRL	Delivery Date
1.	Cost Funds Status Report	A001	Monthly
2.	Progress/Status Management Report	A002	Monthly
3.	Final Report	A003	30 Days After POP End Date
4.	OPSEC Plan	A004	As Required
5.	Quarterly Personnel Access Report	A005	Quarterly

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3.16.1 SECURITY REQUIREMENTS

The work to be performed will involve access to and handling of classified material up to and including Top Secret in accordance with the DD 254 in Section J of the solicitation. Individual Delivery Orders may require different levels of security clearance other than the attached Top Secret Clearance. Some orders are anticipated to require Secret Clearance. A separate DD 254 will be incorporated into those resultant delivery orders requiring such clearance.

The Contractor shall submit to NAWCAD 7.4.4 an Operations Security (OPSEC) Plan which shall include procedures to: protect sensitive Government information, identify the Contractor's activities during the performance of the contract, define security responsibilities and requirements, and define security practice procedures.

3.16.2 REQUIREMENTS FOR LOCAL SECURITY SYSTEM

TO BE DETERMINED AT TASK ORDER LEVEL

The contractor agrees to provide locator information regarding all employees requiring a permanent badge for authorized entrance to the NAS-Patuxent River Naval Air Station. Entrance is authorized by this contract as a result of tasks associated with performance of the Section C -

Statement of Work only. Initial information shall be provided as each individual is assigned to this contract by using the Locator Form provided as an attachment to this contract. Thereafter, quarterly reports (due at the beginning of each quarter by the fifth day of the month) will be provided with gains/losses (identification of new and replaced or added individuals) and any changes to current personnel (such as telephone number, building number and room number). A point of contact is to be named on each quarterly report for any questions/additional information needed by the Government recipient. The quarterly reports are to be addressed as specified in CDRL A005.