

STATEMENT OF WORK

DATE: 05 March 2012

TITLE: SHARP (Sierra Hotel Aviation Readiness Program) Enterprise

1.0 SCOPE

Commander, Naval Air Forces (COMNAVAIRFOR) is the Program of Record sponsor for the SHARP and Aviation Data Warehouse (ADW) programs. Commander, Naval Air Systems Command (SYSCOM) is the Program of Record sponsor for the Air Combat Training System (ACTS) Support effort. Together these systems make up the SHARP Enterprise.

Approval Authority. Overall coordination, final approval and authority for the SHARP and ADW projects is the responsibility of COMFOR N4B2 Training and Readiness Officer. Acceptability or unacceptability of all deliverables and tasks performed by the contractor shall be based on the recommendations of the Commander, Naval Air Forces Training and Readiness Officer who will serve as Contracting Officer's Representative (COR), and with the Commander, Naval Air Systems Command, General Training Officer (PMA-205 GT), who will serve as Alternate COR, with primary responsibility for acceptability for ACTS deliverables.

1.1 This is a performance-based service acquisition to provide SHARP systems engineering, integration, training, lifecycle maintenance, procurement, installation, customer support, and management support. These systems are designed to track aviation training from initial courseware and classroom work through all trainer, simulator and flight events. This effort is also designed to capture and display detailed individual and unit readiness data from combatant and support commands to assess Navy current and projected warfare mission capabilities.

1.2 This effort provides for system engineering, system sustainment, system integration, enterprise data integration support, sharing enterprise components and services, testing, installation, training, life cycle maintenance, procurement support, customer support, management support, certification and accreditation support and system documentation for the following systems and modules that support SHARP Enterprise:

- Sierra Hotel Aviation Readiness Program (SHARP) – See Attachment One
- Aviation Data Warehouse (ADW) – See Attachment Two
- Aviation Carrier-Sierra Hotel Aviation Readiness Program (CV-SHARP) – See Attachment Three
- Air Combat Training System (ACTS) / SHAPR Learning Management System (ACTS / SHARP LMS) – See Attachment Four

1.3 The SHARP Enterprise architectural foundation is based on a Service-Oriented Architecture (SOA). The SOA is migrating to the Navy Readiness Reporting Enterprise (NRRE)/SOA. NRRE will provide the standard architecture for all Navy Readiness tasks, to include, utilization of standard software/hardware products, standard internal/external system

interface procedures, standard help desk support (separate from contract customer support requirements), standard Continuity of Operations support, standard system security procedures, standard user training procedures, etc. A service orientation provides a means for the enterprise to build distributed enterprise systems based on services. These services are discrete units of application logic that expose evocable interfaces to service consumers. It is necessary, if these services are going to be usable by internal and external consumers, that they be built using precise standards. These systems shall be interoperable and integrated with associated readiness reporting applications to include Navy Training and Information Management System (NTIMS) and the Defense Readiness Reporting System Navy (DRRS-N).

2.0 SHARP ENTERPRISE INTRODUCTION

This statement of work provides information and guidance for the support of the SHARP Enterprise application which was formerly known as four different applications: Sierra Hotel Aviation Readiness Program (SHARP), Aviation Carrier-Sierra Hotel Aviation Readiness Program (CV-SHARP), Aviation Data Warehouse (ADW) and Air Combat Training System (ACTS). Engineering and support work conducted on the syllabus and courseware modules of the SHARP software package, as well as all work performed related to the ACTS infrastructure as defined in the current ACTS Certification and Accreditation Plan will be considered under the ACTS / Contract Line Item(s) (CLINs). All other work will fall under the SHARP / ADW / CV-SHARP CLINs

A. Background – SHARP Enterprise Requirement

A critical part of the Commander, Naval Air Forces policy on training and readiness detailed in the CNAFINST 3500.1D is a web-based system that tracks aviation training and qualifications for both individual aircrew and squadrons and reports readiness according to defined business rules to the Defense Readiness Reporting System Navy (DRRS-N). The current system also allows squadrons to write individual flight schedules, track syllabi and grade sheets for Fleet Replacement Squadrons (FRS) and Air Combat Training Continuum (ACTC) curriculum (under CNAFINST 3502.1C), manage operational unit funding, track aircrew qualifications and build an electronic aircrew logbook. The SHARP application resides on NIPRNET hosted on the Navy and Marine Corps Internet (NMCI) and data from this system is supplied in aggregate to the Aviation Data Warehouse (ADW) which resides on the SIPRNET. In contrast, CV-SHARP resides on SIPRNET, but the data from this system is likewise aggregated to ADW. These enterprise systems provide data to Navy leadership for decision making on resources and funding for Naval Aviation squadrons and aircraft carriers (CVNs). SHARP Enterprise also operates on the Integrated Shipboard Network System (ISNS), Consolidated Afloat Network Enterprise System (CANES) and COMPOSE networks aboard all aircraft carriers. Syllabus information is tracked via an Electronic Training Jacket (ETJ) which is resident either in SHARP (NIPR) or ACTS (SIPR). The SHARP Enterprise readiness reporting initiative is based on the mission essential task construct and readiness metrics that indicate a command's ability to execute the broader Mission Area or Capability Area. It requires that CNAF defined readiness measures for training be integrated with the mission essential tasks associated with each command level, and a technical architecture be supported that enables data exchange, near real time, between all Services and Agencies to support an Office of Secretary of

Defense readiness capability view. The SHARP Enterprise initiative will be a dynamic, ongoing evolutionary effort aimed at providing the Navy Afloat commands, shore commands, Type Commanders (TYCOMs) and Fleet Commanders the highest level of training readiness reporting, collection, display, and analysis for readiness assessment and planning.

B. Management of SHARP Enterprise

The Commander, Naval Air Forces Readiness Officer (CNAF N40) is designated as the Model Manager for aviation readiness reporting applications. This office provides the policy, infrastructure and support systems necessary for standardized flight crew training at the Fleet level under the CNAFINST 3500.1D and CNAFINST 3502.1C series instructions. The Force Readiness mission is to provide combatant commanders with fully trained combat ready Naval Aviators, Naval Flight Officers and Aircrewmen capable of effectively executing all assigned mission areas.

2.1 The Defense Authorization Act for Fiscal Year 1999 required the Secretary of Defense to implement a comprehensive readiness system capable of accurately and objectively measuring readiness to support execution of the National Security Strategy (NSS), National Military Strategy (NMS) and Title X responsibilities. This system shall measure readiness in a timely manner to ensure responsiveness to support National Command Authority (NCA) review of crucial national security issues. As part of DRRS the Services, in turn, need readiness reporting systems able to generate current readiness data in “Mission Essential Task categories”, including aggregated readiness data “rolled up” from the unit level into groups of Service assets relevant to Combatant Commanders. The training management and learning management systems shall support these efforts and provide data to NTIMS and DRRS-N to support commander’s assessments of unit training and readiness.

2.2 The DRRS-N effort is also governed by the Department of Defense Directive (DoDD) 7730.65. This directive mandates that all DoD components will align their readiness reporting processes in accordance with this directive. Readiness related information from all services will be passed to Defense Readiness Reporting System (DRRS) in support of the Office of Secretary of Defense (OSD) readiness posture. The Navy’s ability to support the DoD directive is based on its ability to continue to support current readiness reporting requirements in addition to additional requirements identified in the directive. Current requirements include supporting and maintaining operational Navy readiness reporting systems to include the systems that fall under SHARP Enterprise.

2.3 To ensure overall effectiveness and efficiency of communications, operations, information transport, and network management capabilities, this effort shall be compliant with the Navy Readiness Reporting Enterprise (NRRE)/Service-Oriented Architecture (SOA), Global Information Grid (GIG), Net centric Operational Warfare – Reference Model and Data Strategy as defined by National Information Infrastructure (NII). The National Information Infrastructure is defined as a seamless web of communications networks, computers, software, databases, applications, data, and other capabilities in a network centric environment that meet the information processing and transport needs of DoD users during all contingencies of peacetime and conflict.

3.0 GENERAL DESCRIPTION.

A.SHARP Enterprise Support

The purpose of this portion of the SOW is to specify the overall operational support architecture that is applicable to the entire SHARP Enterprise infrastructure and all its supporting systems to include SHARP, ADW, CV-SHARP and ACTS. The contractor shall provide support for the databases and hosted classified files on government furnished servers and other hardware ashore, afloat and forward deployed, on NIPRNET / SIPRNET and while deployed conducting operations independent of the government's network. This support includes providing software and maintenance, software and hardware accreditation (with government assistance where contractor interface is not appropriate), server and associated peripherals hardware purchase (on an as needed basis), data replication, user, vendor and administrator integration, user, vendor and administrator training and user, vendor and administrator technical support. The program anticipates growth to expand Learning Management System (LMS) functionality to NIPRNET within the life of the contract (but not during the Base Year) as required and funded by the program sponsors in that Option Year. The SHARP Enterprise shall be supported by customer support representatives who provide this user and administrator training and technical support in Jacksonville/Mayport FL, Norfolk VA, Fallon NV, San Diego CA, Lemoore, CA, Whidbey Island WA and Kaneohe Bay HI.

B. Deliverables

The contractor shall develop upgraded spirals of SHARP, CV-SHARP and ACTS / SHARP LMS and provide SHARP Enterprise support in accordance with their respective Attachments to this statement of work. The contractor will update all SHARP Enterprise applications to maintain current Navy and DOD network requirements. Contractor support is also required in the following areas: government program manager support, shore and shipboard server maintenance, network administration, database administration, software support, deployable asset (laptop) support, training support and quality assurance. The program envisions migration to centralized, virtual servers in Navy data centers within the life of the contract as required and funded by the Government; in this event, some services envisioned by this SOW will be provided by the data center instead. Changes to the support required will be negotiated prior to award of the Option Year in which they are programmed to occur. This contract will require remote training and technical support to overseas locations like Guam, Italy and Japan.

4.0 TECHNICAL REQUIREMENTS. Specific support required under this Statement of Work is contained in the following Attachments:

- Attachment One – SHARP
- Attachment Two – ADW
- Attachment Three – CV-SHARP
- Attachment Four – ACTS / SHARP LMS

5.0 Program Management. The contractor shall establish program management processes that will provide on time, within budget, and fully tested software corrections, enhancements, and

upgraded tools and reports agreed upon by the Configuration Control Board, as identified in the Customer Acceptance Document. Contractor program management must also ensure the smooth, effective, and efficient deployment and employment of the System Implementation Team. The contractor's program management processes shall afford opportunities for input and oversight by the Government. Program management will incorporate risk mitigation measures. The following specific reports shall be provided to satisfy this task:

- Customer Acceptance Document (CAD)
- Quarterly In Progress Review (IPR) Agenda and report
- Briefings and Training, as required
- Monthly progress reports to include cost/schedule
- Ad hoc status updates to include cost/schedule status reports

Prepare briefings, papers, and other time-sensitive responses as required. Throughout the course of this contract, the Government may require time-sensitive responses from the contractor in the form of issue papers, briefings, and other products to provide up-to-date information about the progress of the baseline readiness assessment effort. The contractor will respond to Government requests for support in a timely manner and within available funding and other resources, or notify the Government of additional cost requirements.

5.1 Software Documentation. The contractor shall develop and maintain the following documents for all tasks required by this SOW as directed by the Technical Representatives. The final list of documents to be provided will be determined via coordination between the Government Technical Representatives for each of the various Projects and the contractor.

Required documents:

- Software Development Plan (SDP)
- Software Installation Plan (SIP)
- Software Transition Plan (STRP)
- Operational Concept Description (OCD)
- Software Requirements Specification (SRS) (includes IRS, SSS, and Use Case

Diagrams/User Stories)

- Software Design Description (SDD) (includes SSDD, modeling diagrams)
- Interface Design Description (IDD)
- Database Design Description (DBDD)
- Software Test Plan (STP)
- Software Test Description (STD)
- Software Test Report (STR)
- Software Product Specification (SPS)
- Software Version Description (SVD)
- Software User Manual (SUM) (includes SIOM)
- Software Center Operator Manual (SCOM) (includes disaster recovery plan)

Training Material
Software Configuration Management Plan
SSAA (provide support to SSAA developer)

The following documents are waived if their information is included in other documents as indicated in parenthesis:

System/Subsystem Specification (SSS) (included in SRS)
System/Subsystem Design Description (SSDD) (included in SDD)
Interface Requirements Specification (IRS) (included in SRS)
Software Input/Output Manual (SIOM) (included in SUM)
Modeling Diagrams (included in SDD)
Use Case Diagrams/User Stories (included in SRS)

5.2 System Lifecycle Reviews. The contractor shall provide measurable performance targets (metrics) for this effort. For certain phases of the project life cycle, review meetings are held (sample shown below) resulting with the contractor submitting review reports:

System Lifecycle Reviews

- Quarterly In Progress Review (IPR) Agenda and report
- Requirements Phase
 - Customer Acceptance Document (CAD)
 - System Concept Review
- Design Phase
 - System Design Review
 - Critical Design Review
- Development Phase
 - Test Readiness Review
- User Test Review
 - Release Readiness Review
- Security Test Review

5.3 Data Access Controls. The contractor shall ensure that the systems in this SOW are capable of limiting access to information based on the customers need to know. For example, squadrons will be limited to view and analyze their information only; Wings from their community only etc. The systems shall be able to sustain four hundred hits and concurrent queries with no degradation. Service shall be available 24 hours per day, seven days per week. Response time must meet government expectations.

5.4 Acceptable Quality Level. The contractor shall develop and interface systems using government approved methodology, processes, tools, architecture, and environments as described in the SHARP and ADW Certification and Accreditation Plan, or in accordance with future requirements mandated by NAVYCYBERFOR.

5.5 Progress Reports.

5.5.1 Monthly Status Report. The contractor shall provide Monthly Status reports. Report format and contents shall be determined by the Technical Representatives and Technical Coordinator and shall include enclosures for Actual Summary of Hours and Actual Detailed Hours in accordance with the current CNAF Monthly Status Report template, to be provided at the Post Award Conference. The Actual Detail of Hours shall include but not limited to employee names, skill levels, labor hours by project/module, rates, monthly costs, cumulative costs, and Other Direct Costs (ODC). The contractor shall provide soft copy of this report written in Microsoft Word with the Actual Summary of Hours and Actual Detailed Hours in Microsoft Excel.

5.5.2 An enclosure to the Monthly Status Report of the following, with contents and format specified by the current CNAF Monthly Status Report template, to be provided at the Post Award Conference:

- A list of milestones scheduled and achieved for the month. Delays explained.
- Status of all system components and any system failures and corrective actions.
- A graph of high-level tasks for support staff and development staff.
- Major issues, risks, problems and recommendations for resolution
- Planned activities, major upcoming events and milestones to achieve them
- Estimate of work remaining with associated financial costs.

5.5.3 Monthly Financial status Report. The contractor shall provide Monthly Financial Status Reports. Report format and contents shall be in accordance with the current CNAF Monthly Status Report template, to be provided at the Post Award Conference. The contractor shall provide soft copy of this report in a Microsoft Office™ compatible format.

The Monthly Financial Status Report shall contain a Spend Plan enclosure with contents, format, level of detail, and number of projected months specified by the Technical Representatives and Technical Coordinator.

The Monthly Financial Status Report shall contain a Delivery Order Summary enclosure with contents and format determined by the Technical Coordinator but at a minimum contain the contract number, delivery order number, ceiling, total hours, total labor, total subcontractor labor, total fee, total ODC, total travel, total cost adjustment, total fee adjustment, total rate adjustment, total expended, balance, and projected out of funds date for all contract delivery orders.

5.5.4 Trip Reports. Trip reports for all trips made during the reporting period will be submitted as enclosures to the monthly status report. The report shall include the traveler's name, dates of travel, departure and arrival locations, purpose of trip, and person visited/contacted.

5.5.5 Routine Communications. The contractor shall use e-mail for administrative coordination issues. Classified (up to Secret) information can be transmitted via SIPRNET e-mail.

5.5.6 Billing and Invoices The contractor shall send soft copy summary and detailed billing invoices to the Technical Coordinator in Microsoft Excel backing up Wide Area Workflow (WAWF) invoices in a timely manner. The contractor shall forward the detailed billing invoice and signed public voucher (SF1034) to the Technical Coordinator no later than two weeks after the reporting period. The contractor shall forward an integrated schedule of all projects' major milestones, individual project detail milestone schedules, and any schedule updates to the Technical Coordinator in a timely manner.

5.6 Compliance with National Information Infrastructure/National Core Enterprise Services. The contractor shall ensure that all work performed in support of the NRRE SOA is compliant with the policies and procedures outlined by the National Information Infrastructure and National Core Enterprise Services initiative.

5.7 FORCEnet Compliance. The contractor shall ensure SDLC efforts are FORCEnet compliant which includes supporting the FORCEnet architecture and alignment with the Global Information Grid (GIG) Enterprise Services.

5.7.1 Create and register XML schema for all data - tag all data with meta data to enable discovery of data by other users and register in the DoD metadata registry. The contractor shall ensure that all data managed as part of this statement of work is in XML format and registered with the DoD meta data registry.

5.7.2 Provide Force Structure data to the Navy's Force Structure Server which in turn will support the DoD Force Structure Database (posting all data to a shared space). The contractor shall ensure that all Navy Force Structure data is maintained in the Navy's Force Structure Server (including eventual migration to a Navy Data Center as required and funded by the program sponsors) and is accessible to support the DoD Force Structure Database.

5.8 Information Assurance – The contractor shall ensure that all SOA applications will support integrated Identity Management, Permissions Management and Digital Rights Management ensuring that adequate confidentiality, availability and integrity are provided.

5.9 Provide Disaster Recovery / Continuity of Operations Procedures. The contractor will establish and maintain a disaster recovery / continuity of operations plan consistent with a Media Assurance Category III (MAC III) system. It shall, as a minimum, provide for off line storage of all data that precludes the loss of more than 48 hours of data on any device. It will also ensure that the system can be brought on line and operational within two business days of any incident resulting in system failure, or in the case of damage to the facility within which the physical hardware is housed, within two business days of return of the facility to operation. Migration of the system to centralized, virtual data centers is envisioned within the life of the contract; in that event, disaster recovery / continuity of operations provided by the data center

will be considered acceptable. The Continuity of Operations Plan shall be exercised at least annually.

6.0 OTHER.

6.1 SECURITY. Because some of the work on this task order is classified SECRET, all personnel working on this task shall have SECRET clearances. The contractor shall have a classified environment already approved at their facility. All computed training and readiness figures of merit are classified SECRET. The contractor will require a classified network for production as well as safes for storing classified materials. In addition, the contractor will require SIPRNET access at the government facilities from which they are providing SHARP Enterprise support.

6.2 Place of Performance. The work under this task order is to be performed at government sites and at the contractor's facility. Sufficient government furnished office space will be offered to support 27 Full Time Equivalent personnel in on base facilities. This will include SIPR access, phone support and desks to support all 27 personnel.

6.3 Inspection and Acceptance. The contractor shall coordinate services, deliverables, and delivery schedules with the Contracting Officer’s Representative (COR) and ACOR(s) with the understanding that all work shall be within scope of this SOW. The contractor shall submit all deliverables to the COR or ACOR(s) for inspection and acceptance.

Technical Representatives:

Technical Coordinator:

COR:

ACOR:

Contractor Representative Signature (Date)

Technical Representative Signature (Date)

Technical Coordinator Signature (Date)

COR Signature (Date)