

# **STATEMENT OF WORK**

## **1 Introduction**

### **1.1 BACKGROUND**

The Digital Analytics, Infrastructure and Technology Advancement (DAiTA) Group is the Naval Air Warfare Center, Aircraft Division (NAWCAD) center of excellence and point-of-entry for Research, Development, Test and Evaluation (RDT&E) of the synthetic battlespace environment, modeling and simulation, aircraft prototyping, instrumentation and experimentation, electronic warfare and cyberwarfare and provides the associated laboratories, facilities and infrastructure to support research, development, testing, training, systems evaluation and experimentation. The Integrated Battlespace Simulation and Test (IBST) Department, under the DAiTA Group, is the Naval Air Systems Command's (NAVAIR) center of excellence for modeling and simulation of the Battlespace environment. The Simulation Division (SD), legacy NAWCAD 5.4.3, is one of three divisions within IBST and is responsible for simulation expertise and products for naval aviation systems and the Battlespace environment within which they operate. Simulation is used throughout the acquisition lifecycle to reduce risk and improve the quality of naval aviation systems.

The Simulation Division operates a number of laboratories, which are for activities that include developing aviation system requirements, supporting system development, providing developmental and operational flight test support, and providing life-cycle operational support to include system enhancement, procedure refinement, and accident investigations. Current laboratories operated or supported by the Simulation Division include:

- Manned Flight Simulator (MFS) facility,
- Joint Simulation Environment (JSE),
- E-2 Systems Test and Evaluation Lab (ESTEL),
- P-8 Systems Integration Lab (PAXSIL),
- Unmanned Air System (UAS) Integration Lab,
- Warfare Simulation Lab,
- Executive Helicopter Systems Integration Lab (SIL), and
- H-60 Data Reduction Lab (DRL)

These laboratories also support simulation initiatives that include common architectures and interfaces, cross-platform communications, Live Virtual Constructive (LVC) events, air system stimulation, and simulation Verification, Validation and Accreditation (VV&A). Simulation Division laboratories interact with and provide simulation support for other laboratories, programs, and activities as required to meet customer requirements.

The Simulation Division also develops and provides support for simulation products delivered to DoD customers, Foreign Militaries in support of Foreign Military Sales, Simulation Division Laboratories, and other Federal organizations. These products include, but are not limited to:

- Tactical Operational Flight Trainers (TOFT)
- Weapons Systems Trainers (WST)
- Part Task Trainers (PTT)
- Maintenance Training Devices

- Laboratory (RDT&E) simulation capabilities
- Desktop simulation stations
- Simulation software, including simulations, models, and simulation support applications.
- Simulation infrastructure, including operator stations, display systems, image generation, and avionics and support racks.

## 1.2 SCOPE

This contract requires the Contractor to provide engineering, technical, manufacturing, and program management support services and associated supplies for simulation systems requirements and operations of the NAWCAD IBST Department and the Simulation Division.

**This tasking shall include Sensitive Compartmented Information (SCI) requirements, but none of the deliverables shall contain SCI. Tasking shall require access to SCI level information and facilities.**

This contract is a single award indefinite delivery / indefinite quantity (IDIQ) contract to support the mission of the Simulation Division. Specific requirements will be derived from the scope of this Statement of Work (SOW) and documented through individual Task Orders (TO).

## 2 Applicable Documents

The following documents are applicable to the SOW as specified herein. This list is not all-inclusive. This list is for reference only and defines the most common documents, policies, and specifications that may be applicable in the performance of the duties defined within this SOW. New instruction, supplements, amendments, or revisions to documents may be issued during the term of the contract, and shall be in full force and effective immediately upon receipt by the Contractor. In the case of an inconsistency between the industry standards referenced herein and the Government documents referenced below, the Government standard will always take precedence. Additional documents may be identified at the individual TO level.

### 2.1 Referenced Documents

#### 2.1.1 Federal / DOD / Military Documents

Joint Travel Regulation (JTR)

DODI 5200.48 – DoD Information Security Program: Controlled Unclassified Information (CUI)

DODM 5220.22-M – National Industrial Security Program Operating Manual (NISPOM)

DODD 5230.24 – Distribution Statements on Technical Documents

DODI 8582.01 - Security of NON-DOD Information Systems Processing Unclassified Non-Public DOD Information

NIST SP 800-171 – Special Publication: Protecting Controlled Unclassified Information in Nonfederal Systems and Organizations

#### NAVY Documents

EKMS-1b - Electronic Key Management System (EKMS) Policy and Procedures For Navy EKMS Tiers 2 & 3

NASPAXRIVINST 5100.35D – Safety and Occupational Health Manual

NASPAXRIVINST 12610.7H – Employee Reporting Procedures During Emergencies

NASPAXRIVINST 11240.20 Licensing of Motor Vehicle and Equipment Operators and the  
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NASPAXRIVINST 5100.12C Traffic Safety Program.  
OPNAVINST 3440.17A – Navy Installation Emergency Management Program  
OPNAV 5239/14 SAAR-N – System Authorization Access Request Navy (SAAR-N)  
OPNAVINST 5239.1D- US Navy Cybersecurity Program  
NASPAXRIV 5510.15Q- Base Access Regulation  
SECNAVINST 5100.13E – Navy Tobacco Policy  
SECNAV M-5510.30 – Personnel Security Program  
SECNAV M-5510.36 – Information Security Program  
SECNAVINST 5510.36- DoN Information Security Program (ISP) Regulation  
OPNAVINST 5530.14E Navy Physical Security and Law Enforcement Program  
NASPAXRIVINST 3440.17A- Installation Emergency Management Program  
NASINST 5100.35C Occupational Safety and Health Manual  
NASINST 11320.1N Fire Bill  
NAVAIR Technical Manual 01-1A-505, Installation Practices, Aircraft Electric and Electronic  
Wiring

## **INDUSTRY/ Other Documents**

IPC-J-STD-001F – Requirements for Soldered Electrical and Electronic Assemblies  
IPC-A-610F – Acceptability of Electronic Assemblies  
IPC/WHMA-A-620C – Requirements and Acceptance for Cable and Wire Harness Assemblies  
IPC-7111/7721C – Rework, Modification, and Repair of Electronic Assemblies  
SAE-AS-50881D Wiring, Aerospace Vehicles

## **3 Requirements**

### **3.1 General Requirements**

#### **3.1.1 Compatibility**

The Contractor shall maintain the capability to prepare documents and software packages compatible with the Government IT environment. The current operating environment required for this contract includes:

- Microsoft Windows (current version the Government is utilizing)
- Microsoft Project 2016
- Microsoft Office Professional Plus 2016
- Microsoft SharePoint 2016
- Adobe Acrobat XI (reader)
- Internet access

The Contractor shall maintain the ability to interface with and transfer data to and from requiring office software applications and their upgraded versions. For contract administrative or indirect functions performed at the Contractor site, the Contractor shall ensure that all media delivered to the Government are virus free when delivered. The Contractor shall be capable of Internet and LAN communications with the Government. Contractor personnel shall be capable of maintaining real-time communications, both voice and data transfer capabilities, with the Government during working hours whether at Contractor work site or on travel.

### **3.1.2 Work Location and Facilities**

- 3.1.2.1 Approximately 45 percent of work will be performed at a Government site (NAWCAD, Patuxent River MD) and 55 percent of work will be performed at the Contractor site. As defined at the TO level, the Contractor shall be required to provide short and/or long-term technical support services, via travel/temporary duty, in both Contiguous United States (CONUS) and Outside Continental United States (OCONUS) locations.
- 3.1.2.2 Government onsite support does not include temporary and ad-hoc support performed away from NAVAIR/NAWCAD facilities. Contractors performing on-site support will be provided access to workspaces, telephones, printers, facsimile machines, copy machines, shredders, computers, network access including web servers, tooling, and applications necessary to carry out assigned tasks. The Government site provides engineering space, integration laboratories, a small electro-mechanical manufacturing and assembly space, and an outdoor pad site for deployable training systems. These spaces are principally utilized for higher level classification work or for systems that will be permanently installed and maintained at the Government site.
- 3.1.2.3 Due to the requirement for continuous recurring Government participation during the software development, assembly, integration, and test phases of simulation systems development, the Contractor shall be able to provide assembly and integration facilities within the daily commutable distance of NAS Patuxent River. The Government estimate of required space includes conditioned indoor high bay space of approximately 150,000 square feet with a minimum of 800AMP of 3 phase power and 25,000 square feet of outdoor integration space for deployable (containerized) simulators with a minimum of 800AMPs of 3 phase power. Examples of these activities include but are not limited to: Military Test Pilots and Government subject matter experts evaluating simulation models, calibration of simulated aircraft systems like simulated flight controls and motion systems, supporting hands on test of various simulation systems, Government engineering quality oversight, engineering investigations for repair, modernization, and upgrades. These facilities shall provide temporary "Hot Seating" for Government civilian, military, and other Government CSS visitors.
- 3.1.2.4 As defined at the order level, the Government may provide computers and associated network connectivity hardware required at the Contractor facility for access to the Research, Development, Test and Evaluation (RDT&E), or other Government operated networks.
- 3.1.2.5 The Contractor shall maintain the capability to host and conduct meetings at the classification levels up to a minimum of UNCLASSIFIED with the capacity to support a minimum of 20 persons and have Contractor furnished telephone and VTC capability, as well as sufficient equipment to conduct meetings with presentations including compatible software as required in Paragraph 3.1.1. This support shall be provided within the local daily commutable region to NAS Patuxent River.

The Manager / Operations Manager will be located at the Contractor site (inclusive of telework in accordance with corporate policy and applicable security requirements), however shall be within local daily commutable region of NAS Patuxent River.

### **3.1.3 Contract Status Reporting**

#### **3.1.3.1 Contract Financial Summary Report**

The Contractor shall provide a financial status report in accordance with the Contract Data Requirement List (CDRL) A001. Reference Section 3.5.

#### **3.1.3.2 Monthly Progress Report**

The Contractor shall provide a monthly progress report in accordance with CDRL A002. Reference Section 3.5

#### **3.1.3.3 Contractor Personnel Locator Report**

The Contractor shall provide a Contractor Personnel Locator Report in accordance with CDRL A003. Reference Section 3.5

#### **3.1.3.4 Government Property Report**

The Contractor shall provide a Government Property Report in accordance with CDRL A004. Reference Section 3.5

#### **3.1.3.5 Accident/Incident Report**

The Contractor shall provide an Accident/Incident Report in accordance with CDRL A005. Reference Section 3.5

#### **3.1.3.6 Operational Security (OPSEC) Plan**

The Contractor shall provide an OPSEC Plan in accordance with CDRL A006. Reference Section 3.5

#### **3.1.3.7 Material Tracking Report**

The Contractor shall provide a Material Tracking Report in accordance with CDRL A007. Reference Section 3.5

#### **3.1.3.8 Transition Out Plan**

The Contractor shall provide a Transition Out Plan in accordance with CDRL A008. Reference Section 3.5.

#### **3.1.3.9 Additional Reporting Requirements**

Additional reporting requirements will be defined at the individual TO level.

### **3.1.4 Work Schedule to include Compressed Work Schedule (CWS), overtime, holidays and installation closure**

This section applies to work performed at the Government facilities.

#### **3.1.4.1 Work Schedule**

The Contractor shall provide the required services and staffing coverage during normal working hours. Normal working hours are usually 8.5 hours (including a 30-minute lunch break), from 0730 to 1600 each Monday through Friday (except on the legal holidays specified below). Some supported Government offices have flexibility to start as early as 0600 and end as late as 1800, Monday–Friday. If different hours are needed by a Government team or the Contractor (e.g. individual groups or locations may allow or require different hours) on a long term basis, they will be coordinated through the Technical Point of Contact (TPOC) associated with that work and approved by the Contracting Officer Representative (COR).

The compressed work schedule (CWS) is an alternative work schedule to the traditional five 8.5-hour workdays (which includes a 30-minute lunch) worked per week. Under a CWS schedule, an employee completes the following schedule within a two-week period of time: eight weekdays are worked at 9.5 hours each (which includes a 30-minute lunch), one Friday is alternately worked as 8.5 hours (which includes a 30-minute lunch) and one Friday is not worked by the employee. The result is 80 hours worked every two weeks, with 44 work hours one week and 36 work hours the other.

The Contractor may allow its employees to work a CWS schedule. The CWS schedule shall not prevent Contractor from providing necessary staffing and services coverage as required by the contract and individual TOs. If the Contractor chooses to allow its employees to work a CWS schedule in support of this contract, any additional costs associated with the implementation of the CWS schedule vice the standard schedule are unallowable costs under this contract and will not be reimbursed by the Government.

#### **3.1.4.2 Holidays**

The Government observes the Federal holidays identified on the Office of Personnel Management (OPM) website: <https://www.opm.gov/policy-data-oversight/pay-leave/federal-holidays/#url=Overview>. With the exception of the events in section 3.1.4.5 below, the Contractor is permitted to observe Federal holidays IAW its corporate policy.

#### **3.1.4.3 Overtime (OT)**

Overtime as defined in this contract refers to hours worked by a Contractor employee in excess of the employee's normal workweek. When support requirements outside of normal working hours occur, the Contractor shall ensure qualified personnel are available to support the requirements through the use of overtime. Overtime is authorized under this contract to the extent specified in individual task orders, provided COR approval is obtained in advance. The COR may provide concurrence for overtime on a task, event, program, project, or general function basis. The total cost for overtime over the life of the contract cannot exceed the amount specified in clause 52.222-2 Payment for Overtime Premiums unless first approved in writing by the Procuring Contracting Officer (PCO).

#### **3.1.4.4 Travel/Temporary Duty (TDY)**

When personnel are temporarily deployed offsite, the Contractor shall modify the traveler's working hours to best support the assigned tasking and minimize overtime.

#### 3.1.4.5 General Facility Access

When Federal facilities are closed by the Government or when Federal employees are officially excused from work due to a holiday or a special event, severe weather, a security threat, or any other Government facility-related problem that prevents Federal personnel from working at the Government facility, contractor personnel assigned to work at that facility in support of such Federal employees shall follow their parent company's policies and conform to one of the following possible courses of action:

- Report for work at an alternate site if available, permitted by the terms of the contract, and they receive advance authorization from the COR or Contracting Officer; or
- Telework, provided telework is permitted by the terms of the contract and they receive advance authorization to telework from the COR or Contracting Officer; or
- Follow parent company's policies regarding taking leave (administrative or other).

While generally, contractor personnel may not perform work on-site at a Government facility without oversight from Federal personnel, in very limited circumstances, work being performed by contractor personnel may be deemed mission essential and performance of such mission essential work may be authorized to continue at the Government facility despite the facility being otherwise closed for normal operations. The circumstances permitting work being performed by contractor personnel to be deemed mission essential are extremely limited and generally only apply to performance of efforts related to public health, safety, or matters related to national security. The cognizant Contracting Officer (KO) must concur with any determination that work being performed by contractor personnel is mission essential.

NASPAXRIVINST 12610.7H – Employee Reporting Procedures During Emergencies identifies procedures Government employees are to follow when an emergency condition is identified. The Contractors shall follow the procedures as defined with the exception of being granted administrative leave. Contractors that are at work when a delay or restricted access is announced shall cease work and exit the base as soon as it is safe to do so. The procedures are summarized below.

- **OPEN WITH UNSCHEDULED LEAVE** – Contractors that choose to stay home shall notify the order level Technical Point of Contact of their decision
- **DELAYED ARRIVAL** – The Contractor shall not show up to work prior to their normal start time plus the announced delay. With prior COR approval, the Contractor may be allowed to shift their work hours to make up the missed hours. Contractors cannot charge the contract for the delayed arrival hours and shall check with their employer as to how to code their time card for the delayed arrival hours.
- **DELAYED OPENING** – The Contractor shall not show up to work before the announced opening time. With prior COR approval, the Contractor may be allowed to shift their work hours to make up the missed hours. Contractors cannot charge the contract for the delayed opening hours and shall check with their employer as to how to code their time card for the delayed opening hours.

- **RESTRICTED ACCESS** – The Contractor shall not show up to work. Contractors cannot charge the contract for the hours not at work and shall check with their employer as to how to code their time card for the day.
- **OPEN WITH STAGGERED DEPARTURE** – The Contractor shall depart work at their normal end time minus the announced number of hours early. Contractors cannot charge the contract for the hours not at work and shall check with their employer as to how to code their time card for the day.
- **OPEN WITH IMMEDIATE DEPARTURE** – The Contractor shall depart work immediately. Contractors cannot charge the contract for the early departure hours and shall check with their employer as to how to code their time card for the delayed arrival hours.
- **SHELTER IN PLACE** – The Contractor shall shelter in place. Contractors that are sheltering and in a work status can charge the contract during regular work hours.

#### 3.1.4.6 Telework

Telework may be permitted under this contract. However, not all labor categories or project teams may be able to take advantage of telework opportunities due to the nature of the work. Telework shall be addressed at the individual TO level. The Contractor shall request approval from the COR for any position for which the Contractor proposes a teleworking situation. The contractor request shall identify the labor category, equipment required (PCs, books, etc.), the work to be accomplished or deliverables to be provided, the expected duration of the tasks, principal location where telework will occur, communication methods available to reach the Contractor during telework hours, supervisory method and the working hours the person shall be in a telework status and available for correspondence. Upon approval by the COR, the Contractor may telework within the parameters approved by the request at no additional cost to the Government.

### 3.1.5 Management of Contractor Personnel

The Contractor shall supervise its workforce and control the methods by which required tasks are performed. The Contractor shall assign tasks to and prepare work schedules for individual Contractor employees. The Contractor shall manage its employees and guard against any actions that are of the nature of personal services, or give the perception of personal services. All direction and clarification on work contained in this SOW shall come from the COR and/or the NAWCAD Contracts Office.

#### 3.1.5.1 Personnel

Contractor personnel shall remain employees of the Contractor and will not be considered employees of the Government. The contract PM shall ensure the Contractor workforce understands this employer difference when issues come up that affect the Government, but does not include the Contractors. All subcontractors and subcontractor personnel working on this contract are viewed by the Government as part of the Prime's workforce. As such, there shall be no processes, requests, approvals, or other documents or procedures that are presented to the Government from the subcontractor. All subcontractors shall conform to the same processes and documentation as the Prime when interfacing with the Government.

### 3.1.6 Training

#### 3.1.6.1 New Hire Orientation

The Contractor is responsible for providing an orientation to new hires to enable them to adequately perform their tasking. Orientation shall include, but is not limited to:

- Physical knowledge of the base and Government facilities

- Contract information (Contractor/COR interaction and basic contract requirements)
- Their labor category requirements
- Specific process requirements (Government and Contractor)
- Org chart/hierarchy for both Contractor and Government
- Introductions (COR/ACOR, Government task lead, Contractor task lead, etc.)
- Security

#### 3.1.6.2 Labor Category Training Requirements

The Contractor is responsible for providing individuals who are trained, certified, and qualified to perform the tasks outlined in the SOW. Training to meet labor category requirements is the sole responsibility of the Contractor—both initial training and required re-certifications. The Contractor is responsible for the cost of the training (class, travel, supplies) and the labor associated with the training. These training requirements shall be met prior to the Contractor personnel reporting for duty except as identified in the specific labor category. Due to availability and location of some training classes, exceptions may be made to allow personnel to begin working while waiting for the training to become available with prior approval by the COR. In the case of re-certifications, the Contractor shall plan ahead of time so as to not impact workload due to missed days for training or expiring certifications.

#### 3.1.6.3 Technical Training

Due to the technical nature of the work, there may be special, unique, and emergent training required during the execution of this contract. This training may include, but is not limited to, specific software, hardware, and procedures as required for the specific system or requirements being supported. All requests for cost reimbursable training shall include a written justification by a Government Technical Point of Contact (TPOC) and course information including, but not limited to the source of the training, the dates of the training, a training course description, and training cost including quotes from the vendor. General educational courses or programs for enhancement of basic qualifications or academic standing of employees shall not be accomplished at the Government's expense. No cost reimbursable training shall be scheduled or executed without written approval from the COR in accordance with C-TXT-242.9515 PROCEDURES AND APPROVALS REQUIRED PRIOR TO INCURRING DIRECT MATERIAL COSTS (SEP 2021).

#### 3.1.6.4 Mandated Training

For performance at Government facilities, this contract requires Contractor personnel to complete training such as Anti-Terrorism and Active Shooter (as referenced in paragraph 3.2.6), and any required Operational Security (OPSEC) topics (as referenced in paragraph 3.2.5). In addition, during the course of the contract, the Government may mandate training for all personnel. This training may be computer or instructor based. Contractor personnel shall participate in these training requirements. Participation may be at live training, events, computer based training, or via review of a provided set of documents. This training shall be provided and/or reimbursable by the Government. The Contractor Program Manager shall ensure all Contractors on the contract are trained and shall report compliance to the COR within five (5) working days after the announced deadline of the training.

#### 3.1.7 Non-Disclosure Agreements (NDAs)

In the performance of the contract, the Contractor may have access to non-public proprietary information. The Contractor shall require that any employee performing services under the contract execute a NDA satisfactory to the Contracting Officer or their designated representative.

The NDA shall acknowledge the Contractor and employees' duties with respect to non-public information, and promise to comply with those obligations. A copy of the executed NDAs shall be provided to the Contracting Officer Representative upon request.

### **3.1.8 Aircraft Related Activities**

In the performance of the contract, the Contractor may have access to aircraft hangars, flight lines, maintenance areas, mobile and fixed ground control stations, and aircraft. All Contractor personnel shall follow the local instructions, policies, and procedures in regards to physical access, foreign object damage, tool control, and reporting requirements.

### **3.1.9 Safety and Health**

The Contractor is directly responsible for complying with federal, state, and local occupational safety and health (OSHA) standards for its employees.

#### **3.1.9.1 Safe Working Environment**

The Contractor shall ensure OSHA regulations, as well as, specific site requirements are followed. The Contractor shall be responsible for all costs related to Personal Protective Equipment (PPE), health testing (hearing, blood, etc), and Industrial Hygiene surveys for Contractor work areas. The Contractor shall provide PPE for their personnel including safety shoes, safety glasses, goggles, cranials, hearing protection and other PPE as required based on individual tasking.

#### **3.1.9.2 Hazardous Material (HAZMAT)**

No HAZMAT shall be brought onto Government property that does not directly relate to the performance of this contract. The Government is not responsible for disposal of Contractor material brought onto the job site that is not required in the performance of this contract. The Contractor shall obtain and maintain HAZMAT Coordinator Certification for employees designated to perform these tasks. The Contractor shall be responsible for meeting training requirements and costs associated with obtaining and maintaining HAZMAT Coordinator certifications throughout the PoP of this contract.

#### **3.1.9.3 Incident Reporting**

In the course of performing this work mishaps or incidents occasionally occur to equipment and personnel. The Contractor shall ensure its personnel is on the lookout for potential and realized incidents. Each person shall report any incidents they observe (whether they are involved or not) to ensure proper procedures are followed to minimize the risk of any further injury or property damage. The Contractor shall establish a log of recordable incidents, injuries, and illness and present this information to the COR after each incident in accordance with Accident/Incident Report (CDRL A005).

### **Vehicles**

The Contractor shall be required to operate Government owned or leased vehicles in performance of tasking in the SOW. Government-owned or leased vehicles that the Contractor may use include general purpose passenger carrying vehicles, special-purpose vehicles, tractor trailer, and range authorized vehicles. All vehicles shall be operated in accordance with NASPAXRIVINST 11240.20 Licensing of Motor Vehicle and Equipment Operators and the NASPAXRIVINST 11240.20 Licensing of Motor Vehicle and Equipment Operators NASPAXRIVINST 5100.12C Traffic Safety Program.

#### 3.1.10.1 Vehicle Status

The DAiTA Group operates a fleet of Government owned and leased trucks. The Contractor shall monitor the state (e.g. status, scheduled maintenance, mileage, etc.) and readiness of the SD vehicles.

#### 3.1.10.2 Vehicle Maintenance

When operating the vehicles, the Contractor shall monitor the requirements for normal operator maintenance such as checking and maintaining air pressure in tires and fluids such as engine oil, radiator coolant, power steering, and transmission prior to use. The Contractor shall report any damage observed on the vehicle/equipment and shall notify the Government TPOC/COR of any need for service or repair of the Government owned or leased vehicles.

#### 3.1.10.3 Vehicle Damage

The Contractor shall report any known accidents involving the Government owned or leased vehicles to the Government TPOC/COR. If the Contractor is involved in an accident while operating a Government owned or leased vehicle, they shall notify the Government TPOC, the Contracting Officer, and the COR within twenty-four (24) hours and shall provide an accident report within forty-eight (48) hours in accordance with Accident/Incident Report (**CDRL A005**).

#### 3.1.10.4 Vehicle Operation

When operating the vehicle/equipment, the Contractor shall utilize the Government Fleet Card, the WEX Card, or the Fuel Farm Smart Key, depending upon the particular vehicle/equipment and whether the use is on base or off base, for fueling and maintenance services. Contractor use of the Fleet Card will be in accordance with the requirements and regulations contained in NAVSUPINST 4200.98A. When operating the vehicle, the Contractor shall be liable for any moving or non-moving violations (e.g., speeding tickets, parking tickets, reckless driving). The Contractor shall also be liable for any damage caused to the vehicle as a result of such violations, and any costs associated therewith. The Contractor shall be responsible for reimbursing the Government for any unauthorized charges made by the Contractor, its employees, and sub-contractors on the Fleet Card.

### **Environmental Compliance**

The Contractor shall operate in accordance with all Federal and local environmental regulations.

#### **3.1.12 Government Property (GP)**

Government property means all property owned or leased by the Government. GP includes Contractor-acquired property. The Contractor shall use GP, either furnished or acquired under this contract, only for performing on this contract, unless otherwise provided for in this contract or approved by the Contracting Officer.

### **3.2 Security**

#### **3.2.1 Citizenship Requirements**

Only United States (U.S.) citizens may perform under this contract. If the Contractor cannot find qualified U.S. citizens to perform the work, the Contractor shall submit a citizenship waiver

request with justification to the Government Security Office. The waiver request should include:

- a) The individual's name, date and place of birth, position title, and current citizenship.
- b) A statement that a qualified U.S. citizen cannot be hired in sufficient time to meet the contractual requirements.
- c) A statement of the unusual expertise possessed by the applicant.
- d) A statement that access will be limited to a specific Government contract (specify contract number).
- e) A statement that the Contractor has obtained an export license for the information required to perform the contract.

### **3.2.2 Investigative Requirements**

All Contractor personnel shall maintain security clearance eligibility commensurate with the level of classification of the work performed as annotated in the Contract's DD-254, Contract Security Classification Specification Form.

Contractor personnel shall require access to classified information in performance of this contract up to and including TOP SECRET/Sensitive Compartmented Information with a safeguarding level of SECRET. The Contractor is responsible for ensuring that all personnel receive the requisite investigation and are favorably adjudicated in accordance with DODM 5220.22-M, National Industrial Security Program Operating Manual. Contractor employees who fail to meet security clearance requirements may not access classified information or perform sensitive duties. In such cases, the Contractor employee may not perform on the contract.

The contractor shall comply with security requirements specified in the DD-254 attached to this contract. Information or data that the contractor accesses shall be handled at the appropriate classification level. Unclassified information shall be handled in accordance with the appropriate designation (Controlled Unclassified Information; Covered Defense Information). Distribution is authorized to the Requiring Office's Organization and supported Activity only. Other requests for deliverables under this contract shall be referred to the TPOC/COR of this contract for approval. Additional investigative requirements apply for all personnel supporting TS/SCI tasking; reference Section 3.2.13.

### **3.2.3 Common Access Card (CAC)/PKI, SAAR-N**

#### **3.2.3.1 SAAR-N**

All Contractor personnel requiring access to Government IT systems shall access and operate IT systems and networks IAW shall have an approved OPNAV 5239/14 SAAR-N – System Authorization Access Request Navy form on file, and complete required Annual Information Awareness Training. New employees must submit their SAAR-N forms within thirty (30) days of their first day of work. Instructions for processing the SAAR-N forms are available at: [nhdsm.navair.navy.mil:Knowledge Center](https://nhdsm.navair.navy.mil:Knowledge Center). Enter #12891 in the search bar.

Forms shall be submitted to the COR, Government TPOC, or to the assigned Government Trusted Associate Sponsorship System (TASS) Trusted Associate.

#### **3.2.3.2 CAC/Local Badges**

Contractor CACs and facility specific identification badges will be issued by the Government to on-site Contractor personnel and shall be visible at all times while personnel are at the Government site. The Contractor shall furnish all requested information required to facilitate issuance of identification badges. All CACs and identification badges issued to Contractor

employees shall be returned to the Government Security Department at the Government site following completion of the contract, relocation or termination of an employee, or upon request from the COR. The Government will provide the Contractor access to Government facilities, as required, for performance of tasks under this contract.

#### 3.2.3.3 DD-254

The Contractor shall comply with security requirements as specified in the DD-254 of this contract. Information or data that the Contractor accesses shall be handled at the appropriate classification level, unclassified information shall be handled as “Controlled Unclassified Information (CUI).” Distribution is authorized to the Requiring Office’s Organization and supported Activity only. Other requests for deliverables under this contract shall be referred to the COR of this contract for approval.

CU information generated and/or provided under this contract shall be marked and safeguarded as specified in DODM 5200.01 – DoD Information Security Program: Controlled Unclassified Information (CUI) Vol. 4 (enclosure 3 pages 11-18) available at [https://www.dodig.mil/Portals/48/Documents/Policy/520001\\_vol4.pdf](https://www.dodig.mil/Portals/48/Documents/Policy/520001_vol4.pdf).

#### 3.2.3.4 Other Badging

Badges to special, classified, limited access, and/or commercial facility (e.g. Prime Contractor for a project or platform) areas may be required by the Contractor based on location and tasking. The Contractor shall adhere to the rules governing the issuance of those badges.

### 3.2.4 Information Security

The Contractor shall implement and maintain security procedures and controls to prevent unauthorized disclosure of classified information and controlled unclassified information (CUI) and to control distribution of CUI IAW DODM 5220.22-M – National Industrial Security Program Operating Manual (NISPOM), and SECNAV M-5510.36 – Information Security Program. If the work is performed at the Government’s facility, the Contractor shall comply with instructions/guidance required by that facility.

#### 3.2.4.1 Marking

All information generated by the Contractor shall be properly marked. CUI including Covered Defense Information (meeting the definition of 48 CFR 252.204–7012(a)) generated and/or provided under this contract shall be marked and safeguarded as specified in DoD Instruction 5200.48, Controlled Unclassified Information (CUI) available at <https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodi/520048p.PDF>. Technical information shall also be marked with appropriate Distribution Statements and Export Control warnings IAW DODM 5220.22-M – National Industrial Security Program Operating Manual (NISPOM), SECNAV M-5510.36 – Information Security Program, and program Security Classification Guidance. Any product containing Covered Defense Information shall be assigned a distribution statement (distribution statements B through F) using the criteria set forth in DODD 5230.24 (Distribution Statements on Technical Documents); and have this statement displayed per DODD 5230.24, Enclosure 3.

#### 3.2.4.2 Public Release

No information pertaining to this contract shall be released for public dissemination, including posting to any social media sites such as Facebook or Twitter, unless it has been approved for public release by the appropriate U.S. Government authority. Proposed public releases shall be submitted to the COR for initial approval and awareness. Upon initial approval, the Contractor

shall submit proposed public releases for approval prior to release through the Procuring Contracting Officer.

#### 3.2.4.3 Loss, Compromise, or Spillage

Loss, Compromise and/or Electronic Spillage of Classified or Controlled Unclassified Information: All instances of loss, compromise and electronic spillage of classified or controlled unclassified information shall be reported to the COR, TPOC, and Government Security Office within twenty-four (24) hours of the incident occurring.

#### 3.2.4.4 Compliance to NIST 800-171

In accordance with DOD INSTRUCTION 8582.01 SECURITY OF NON-DOD INFORMATION SYSTEMS PROCESSING UNCLASSIFIED NONPUBLIC DOD INFORMATION, the Contractor shall implement the CUI Security Requirements (Requirements) and associated Relevant Security Controls (Controls) in NIST Special Publication 800-171 (Rev. 1) (NIST SP 800-171), or establish a System Security Plans (SSP) and Plans of Action and Milestones (POAM) that varies from NIST 800-171 only in accordance with DFARS clause 252.204-7012(b)(2), for all covered contractor information systems affecting this contract.

The Contractor shall, at a minimum, meet the Basic Safeguarding Requirements as follows to meet the comparable security requirements of the NIST SP 800-171 as indicated.

<b>BASIC SAFEGUARDING REQUIREMENT</b>	<b>NIST SP 800-171 REQUIREMENT</b>
Limit information system access to authorized users, processes acting on behalf of authorized users, or devices (including other information systems)	3.1.1
Limit information system access to the types of transactions and functions that authorized users are permitted to execute	3.1.2
Verify and control/limit connections to, and use of, external information systems	3.1.20
Control information posted or processed on publicly accessible information systems	3.1.22
Identify information system users, processes acting on behalf of users, or devices	3.5.1
Authenticate (or verify) the identities of those users, processes, or devices, as a prerequisite to allowing access to organizational information systems	3.5.2
Sanitize or destroy information system media containing nonpublic DoD information before disposal or release for reuse	3.8.3
Limit physical access to organizational information systems, equipment, and the respective operating environments to authorized individuals	3.10.1
Escort visitors and monitor visitor activity; maintain audit logs of physical access; and control and manage physical access devices	3.10.3, 3.10.4, and 3.10.5
Monitor, control, and protect organizational communications (i.e., information transmitted or received by organizational information systems) at the external boundaries and key internal boundaries of the information systems	3.13.1
Implement subnetworks for publicly accessible system components that are physically or logically separated from internal networks	3.13.5
Identify, report, and correct information and information system flaws in a timely manner	3.14.1
Provide protection from malicious code at appropriate locations within organizational information systems	3.14.2
Update malicious code protection mechanisms when new releases are available	3.14.4
Perform periodic scans of the information system and real-time scans of files from external sources as files are downloaded, opened, or executed	3.14.5

The Government may, in its sole discretion, conduct reviews at the Contractor's site to verify compliance. The Government will conduct such reviews at least every three (3) years (measured from the date of contract award) and may conduct such reviews at any time upon thirty (30) days' notice to the Contractor.

If the Government determines that the security controls do not adequately implement the requirements of NIST 800-171, then the Government shall notify the Contractor of each identified deficiency. The Contractor shall correct any identified deficiencies within thirty (30) days of notification by the Government. The contracting officer may provide for a correction

period longer than thirty (30) days and, in such a case, may require the Contractor to submit a plan of action and milestones (POAM) for the correction of the identified deficiencies. The Contractor shall immediately notify the contracting officer of any failure or anticipated failure to meet a milestone in such a POAM.

Upon the conclusion of the correction period, the Government may conduct a follow-on review at the Contractor's facilities. The Government may continue to conduct follow-on reviews until the Government determines that the Contractor has corrected all identified deficiencies.

### **3.2.5 Operational Security (OPSEC)**

The Contractor shall comply with activity OPSEC program instructions and guidance, and contribute to organization-level OPSEC efforts. The Contractor will include OPSEC as part of its ongoing security awareness program and take all required activity OPSEC training. The Contractor will protect identified critical information, sensitive unclassified information and activities, which, if divulged, could further compromise classified or sensitive information or operations, or degrade the planning and execution of operations performed by the RO and Contractor in support of the mission.

While performing aboard NAVAIR or NAVAIR sites, the Contractor shall: (1) comply with facility OPSEC program instructions and contribute to organization-level OPSEC efforts; (2) include OPSEC as part of its ongoing security awareness program and take all required Agency training; (3) be responsive to the Supporting OPSEC Manager on a non-interference basis; and (4) protect sensitive unclassified information and activities, which could compromise classified information or operations, or degrade the planning and execution of operations performed by the Requiring Office and Contractor in support of the mission.

The Contractor shall develop, implement, and maintain an OPSEC plan (**CDRL A006**) to protect classified and sensitive information to be used at a Contractor's and subcontractor's facilities during the performance of this contract. The Contractor is responsible for subcontractor implementation of the OPSEC program requirements for this contract.

### **3.2.6 Anti-Terrorism Force Protection and Emergency Management**

The work performed on this contract *is not* Emergency Essential IAW OPNAVINST 3440.17A – Navy Installation Emergency Management Program and Government Emergency Management, Antiterrorism and/or Continuity of Operations Plans. Contractor personnel shall comply with all Government Emergency Management, Antiterrorism and/or Continuity of Operations Plans and directives. Contractor personnel shall not report for work at Government facilities in any event or emergency where Government official's direct curtailment of operations to "Restricted Access" or "Mission Essential Only". All Contractor personnel assigned to a Government facility shall complete annual Antiterrorism (Level One) and Active Shooter training.

### **3.2.7 Communications Security (COMSEC)**

The Contractor shall be required to access COMSEC material. The Contractor shall follow the guidance for handling COMSEC material as identified in EKMS-1b - Electronic Key Management System (EKMS) Policy and Procedures For Navy EKMS Tiers 2 & 3 and applicable local instructions.

### **3.2.8 Cyber Incident Response**

The Contractor shall, within fifteen (15) days of discovering the cyber incident (inclusive of the 72-hour reporting period, reference <https://dibnet.dod.mil/portal/intranet/>), deliver all data used in performance of the contract that the Contractor determines is impacted by the incident and begin assessment of potential warfighter/program impact.

Incident data shall be delivered in accordance with the Department of Defense Cyber Crimes Center (DC3). Reference <https://www.dc3.mil/Organizations/DIB-Cybersecurity/DIB-Cybersecurity-DCISE/>

In delivery of the incident data, the Contractor shall, to the extent practical, remove Contractor-owned information from Government covered defense information.

If the Contractor subsequently identifies any such data not previously delivered to DC3, then the Contractor shall immediately notify the contracting officer in writing and shall deliver the incident data within ten (10) days of identification. In such a case, the Contractor may request a delivery date later than ten (10) days after identification. The contracting officer will approve or disapprove the request after coordination with DC3.

### **3.2.9 NCIS/Industry Monitoring**

In the event of a cyber-incident or at any time the Government has indication of a vulnerability or potential vulnerability, the Contractor shall cooperate with the Naval Criminal Investigative Service (NCIS) and associated law enforcement agencies, which may include cooperation related to: threat indicators; pre-determined incident information derived from the Contractor's infrastructure systems; and the continuous provision of all Contractor, subcontractor, or vendor logs that show network activity, including any additional logs the Contractor, subcontractor, or vendor agrees to initiate as a result of the cyber incident or notice of actual or potential vulnerability.

If the Government determines that the collection of all logs does not adequately protect its interests, the Contractor shall cooperate with the NCIS to implement additional measures, which may include allowing the installation of an appropriate network device that is owned and maintained by NCIS, on the Contractor's information systems or information technology assets. The specific details (e.g., type of device, type of data gathered, monitoring period) regarding the installation of an NCIS network device shall be the subject of a separate agreement negotiated between NCIS and the Contractor. In the alternative, the Contractor may install network sensor capabilities or a network monitoring service, either of which must be reviewed for acceptability by NCIS. Use of this alternative approach shall also be the subject of a separate agreement negotiated between NCIS and the Contractor.

In all cases, the collection or provision of data and any activities associated with this statement of work shall be in accordance with federal, state, and non-US law.

### **3.2.10 Additional Security Requirements**

TS/Sensitive Compartmented Information: This contract includes Sensitive Compartmented Information performance requirements. These requirements include access to SCI materials and information and do not include SCI deliverables. All Contractor personnel supporting SCI requirements must obtain a TOP SECRET clearance with a fully adjudicated investigation in accordance with Intelligence Community Directive (ICD) 704 prior to starting any SCI level work. As a further enhancement to security measures, for the protection of classified information, the Contractor agrees to permit necessary polygraph interviews on Contractor personnel having access to National Security Information (NSI) under this contract. It is understood that the polygraph interview will be limited to counterintelligence (CI) and counterespionage (CE) issues.

### **3.3 Detailed Support Requirements**

#### General Requirements

The Contractor shall:

- 3.3.1.1 Support technical tours and demonstrations of Simulation Division products and facilities and demonstration of Battlespace and distributed simulation products and capabilities.
- 3.3.1.2 Provide visitor escort support in classified spaces as required when supporting contract requirements. Escorting of visitors shall be in accordance with the IBST SOP and current NAVAIR, NAWCAD and NAS Patuxent River directives.
- 3.3.1.3 Provide visitor escort support in classified Simulation Division spaces as required when supporting contract requirements. Escorting of visitors shall be in accordance with the IBST SOP and current NAVAIR, NAWCAD and NAS Patuxent River directives.
- 3.3.1.4 Develop and maintain documentation to support the development, operation, accreditation, maintenance, and modification of Simulation Division products and technical events. Documentation includes, but is not limited to, diagrams, schematics, concepts of operations, source code, models, drawings, parts lists, technical manuals, test procedures, test results and reports, and user's manuals.
- 3.3.1.5 Provide engineering support for scheduled test and training events, including system operation, trouble-shooting, event setup, and debriefing. Typical events include developed system validation, verification, and accreditation and post-delivery initial operational support.
- 3.3.1.6 Provide on-site and off-site technical support to other teams, organizations, and facilities both internal and external to the Simulation Division in support of project objectives.
- 3.3.1.7 Perform technical research and design studies to define performance, operational or user requirements, evaluate new technologies, or improve the capability, efficiency, or reliability of Simulation Division products, projects, infrastructure, operations and facilities.

- 3.3.1.8 Attend user group meetings, symposia as approved by the COR, technical meetings and exchanges, working groups, and System Engineering Technical Reviews (SETR) events to meet program objectives. Develop presentation materials to support technical reviews and meetings.
- 3.3.1.9 Provide technical support for training on simulation technologies and methodologies, the Simulation Division and IBST capabilities and practices, and related subjects. Tasks include the development of training manuals, preparation of classroom and facilities, curriculum development, and class instruction.
- 3.3.1.10 Provide support to prepare for and conduct simulation-based testing and training events to include distributed battlespace simulations and Live, Virtual, Constructive (LVC) exercises.

### **Software Development and Engineering**

#### **3.3.2.1 Simulation Software Development**

The contractor shall assist with the design, development, modification, integration, interfacing, testing, operation, and maintenance of real-time simulation and stimulation systems. Tasks include, but are not limited to:

- Interfacing to simulation hardware systems including image generators, visual display systems, aural cueing systems, control loading systems, shared memory systems, motion platform and cueing systems, video switchers, operator stations, and networking equipment.
- Developing software to interface, operate, monitor, and test simulation and stimulation systems, such as simulation operator software, control executives, runtime tools, environment controllers, and data bus traffic monitors.
- Developing software for simulation recording, playback, presentation and post-execution analysis.
- Developing interfaces to aircraft systems using military and commercial data bus standards.
- Developing interfaces and tools to support distributed simulations using Distributed Interactive Simulation (DIS), High Level Architecture (HLA), Test-Training Enabling Architecture (TENA) and Battlespace modeling.
- Database development and manipulation tools.
- Software to establish connectivity and interoperability between SD systems and facilities and other live, virtual and constructive systems, labs and facilities.

#### **3.3.2.2 Visual and Multispectral Database Development**

The Contractor shall design, develop, publish, modify and maintain visual out-the-window image generator, sensor image generator, moving models, and warfare simulation (JSAF, OneSAF) databases. Tasks include, but are not limited to:

- Developing three dimensional geo-specific dimensionally accurate building models with photo-realistic textures and positioning accurately within a large environment database.
- Developing three-dimensional dimensionally-accurate moving entity models with photo-realistic textures and accurate articulations that can be used in immersive simulated environments.

- Develop and process terrain maps, satellite imagery, shape files, and models to create seamless and accurate simulated representations of the surface of the earth.
- Modifying visual and multispectral satellite imagery and aerial photography to provide appropriate resolution imagery of visual data to project on terrain models.
- Populating large geographical areas of simulation environment databases with representative generic features and trees.
- Developing Geographic Information System (GIS) data to portray point, linear, and aerial features.

#### 3.3.2.3 Avionics Modeling and Interfacing

The Contractor shall design, develop, test, modify and maintain simulation models of air vehicle avionics, mission systems, and weapons systems. The Contractor shall provide support to interface, integrate and stimulate and test aircraft avionics. Tasks include, but are not limited to:

- Applying expertise on sensors (radar, EO/IR, acoustic), mission computers, electronic support measures (ESM), Communication, Navigation, Identification (CNI) systems, data links, and weapons systems to the development of simulations.
- Designing and programming avionics models using a prescribed programming language.
- Interface models with simulation components and equipment, including shared memory systems, simulation systems software, distributed simulations interfaces, and data links to aircraft and test equipment.
- Develop prototype simulated displays.
- Develop tools to run, analyze, and test avionics models and related simulation systems.

#### 3.3.2.4 Aerospace Engineering

The Contractor shall design, develop, test, modify and maintain physics based simulation models of air vehicles, air vehicle interactions, and air vehicle sub-systems. Tasks include, but are not limited to:

- Researching and analyzing aircraft flight test data and system documentation to collect the information needed to develop airframe models.
- Developing air vehicle simulation models using a prescribed program language and/or MATLAB. Modeling includes, but is not limited to, flight performance characteristics, engine modeling, controls, landing gear, electrical and hydraulic sub-systems, and engine control units.
- Interfacing airframe models with other simulation assets, such as shared memory systems, avionics, simulation systems, and distributed simulations.
- Developing tools to run, analyze and test air vehicle simulation models.

#### 3.3.2.5 RDT&E Software Development

The Contractor shall design, develop, integrate, test and operate software in support of development and test activities supported by the Simulation Division. Tasks include, but not limited to:

- Development of software to interface flight test data into simulation and analysis systems.
- Creating software interfaces to RDT&E systems and military hardware.
- Providing support of NAVAIR/DoN software standardization, process and open architecture initiatives.

- Development of software to support NAVAIR RDT&E infrastructure, connectivity, and processes.
- Analysis, evaluation, and testing of software in support of RDT&E programs.

### 3.3.2.6 Enterprise Software Development

The Contractor shall develop, maintain, and upgrade enterprise tracking, planning, and management databases, programs and web-based tools to maximize the efficiency of the operation and management of the IBST organization and supported activities. Support includes, but is not limited to:

- Material inventory, tracking, and shipping systems.
- Workforce and workload tracking and analysis software.
- Test asset scheduling systems.
- Workflow tracking tools.
- Requirements definition and tracking tools.
- Financial management tools.

## **Hardware Development and Engineering**

### 3.3.3.1 Electrical Engineering

The Contractor shall develop electrical engineering plans, analysis, designs, drawings and technical-documentation required for the development and upgrade of Simulation Division supported systems, projects, and infrastructure. Applications include simulation systems, hardware-in-the-loop racks, and developmental test-benches, and supporting infrastructure. Tasks include, but are not limited to:

- Analysis of aircraft systems to be replicated in a simulation environment.
- Power distribution design.
- System inputs/outputs design.
- Integration of aircraft avionics into hardware-in-the-loop systems.
- Real-time audio and video system designs.
- Real-time digital data networks design and interfacing.
- Interconnections between systems, laboratories, and facilities worldwide.
- Requirements generation for simulation components
- Fabrication and installation planning

### 3.3.3.2 Mechanical Engineering

The Contractor shall develop mechanical engineering plans, analysis, designs, and technical documentation required for the development and upgrade of Simulation Division supported systems, projects, and facilities. Applications include simulation systems, hardware-in-the-loop racks, and developmental test-benches, and supporting infrastructure. Tasks include, but are not limited to:

- Aircraft and aircraft system replication.
- Support structure design.
- Analysis of aircraft structures and systems to be replicated in a simulation environment.
- Control loading and visual display system integration and design.

- Electronic rack design.
- Instructor / operator station design.
- Mobile simulator enclosures integration.
- Requirements generation for simulation components
- Fabrication and installation planning

### 3.3.3.3 Drafting

The Contractor shall develop and maintain mechanical and electrical drawings, bills of material, and related design documentation. Drafting is in accordance with ASME Y14.1 and applicable Simulation Division standards. Develop 3D mechanical models and detailed designs.

### **System Testing and Accreditation**

The Contractor shall develop plans for, coordinate, perform, analyze, and document testing in support of the verification, validation, accreditation, and acceptance of developed simulation software and systems.

Tasks include, but are not limited to:

- Analyzing, evaluating, and verifying system and project requirements.
- Identifying critical system requirements, determining the scope of testing required and establishing test criteria for developed.
- Developing, maintaining and obtaining approval for documented test plans, procedures, and mission scenarios.
- Working with project IPT and the customer(s) to refine and obtain approval of test plans.
- Supporting informal and formal System Engineering Technical Review (SETR) events and meetings.
- Scheduling, supporting, and performing test events, including unit testing, integration testing, systems testing, customer acceptance testing, and regression testing.
- Performing software testing using manual and automated software tools, such as Automated Test and Re-Test (ATRT) tool.
- Generating test result reports and creating discrepancy reports to document and communicate test results and the level of system maturity.

### **Military Subject Matter Expertise**

The Contractor shall provide subject matter expertise (SME) for a broad range of military matters including air-vehicles, sensors systems (RADAR, SONAR, etc.), weapons systems, communication systems, air-vehicle simulation and training, Live, Virtual and Constructive (LVC) simulations, and aircraft and aircraft system testing, and M&S Verification Validation and Accreditation. Tasks include, but are not limited to:

- Development of recommended technical specifications based on an in-depth knowledge of the fleets operations and requirements.
- Communicating requirements for simulation models and LVC environment scenarios to software developers and/or participating in model development.
- Evaluating and testing simulation models and LVC scenarios.
- Evaluating and analyzing flight test data.
- Interfacing with customers and system operators.

- Supporting, planning, and/or operating simulation and test events in support of test and training objectives.
- Operating / manipulating model entities in distributed simulation events.

### **Project Technical Support**

#### 3.3.6.1 Logistics

The Contractor shall develop, maintain, and support audits of logistical data and of deliverable data packages, reports, lists, and manuals. Tasks include, but are not limited to:

- Gathering data for the development of required project documents.
- Coordinating with product teams, manufacturers, vendors and sub-contractors to develop and refine logistics data.
- Collecting, calculating, analyzing, and communicating component and system-level reliability and maintainability data.
- Developing recommended spare parts lists.
- Developing and maintaining system equipment inventory records.
- Tracking and validating project inventory.
- Obtaining, registering and verifying that Item Unique Identification (IUID) bar codes are applied.
- Researching alternate parts and part cost data.
- Coordinating and facilitating Physical Configuration Audits (PCA).
- Developing and presenting project logistics information at formal design reviews.
- Provide support in managing COTS/GOTS documentation.
- Developing logistical deliverable documentation.

#### 3.3.6.2 Configuration Management (CM)

The Contractor shall maintain a Configuration Management program for documents, software, hardware, and commercial off the shelf (COTS) and government off the shelf (GOTS) documentation in support of SD projects and operations in accordance with established procedures. Maintain a Government owned multimedia technical data library that consists of technical documents, technical data and reports, software, and product user licenses. Tasks include:

- Tracking and reporting on the status of project documentation, change documentation (discrepancy reports, change requests, etc.), and deliverable items.
- Supporting design reviews and Configuration Control Board meetings. Tracking action items from configuration control board (CCB) meetings.
- Assuring approved configuration management standards and procedures are adhered to.
- Working with project IPTs to determine the schedule, content, and delivery of project base-lines and releases. Supporting the creation, verification, documentation and distribution, and tracking of data package releases.
- Verifying proper use of the approval process for the release of hardware engineering drawings and data lists to manufacturing.
- Maintaining government-owned physical and computer data libraries. Implementing procedures to ensure the restoration of software products and digital data in the event of a system failure or disaster.
- Assisting with the definition and improvement of CM-related processes and procedures. Documenting, maintaining and implementing project-level CM plans.

#### 3.3.6.3 Technical Writing

The Contractor shall provide technical writing support to develop product documentation (user manuals, technical manuals, and logistics reports), project documentation (project standards, status reports, meeting minutes, and action items), test definition and results reports, and organization policy and procedure documentation. Support includes researching, writing, editing, and proofreading deliverable logistical and project support documentation in accordance with applicable customer specifications and Simulation Division standards. Communicate with project team members to develop, collect, and process information required for writing assignments.

#### 3.3.6.4 Project Analysis

The Contractor shall provide project analysis and planning support for SD development projects. Typical tasks include, but are not limited to:

- Requirements: collecting, tracking, establishing traceability, communicating, and reporting for project requirements. Collect and organize customer requirements and assist with the development and tracking of derived requirements.
- Schedule / EVM: develop and maintain project schedules and Earned Value Management (EVM) data for projects. Develop and maintain Integrated Master Schedules (IMS) with work breakdown structures and resource-loaded schedules using Microsoft Project with inputs from Project Managers and team members. Identify and communicate schedule conflicts and irregularities and work with project teams to mitigate schedule issues. Track project costs, cost estimates, and cost projections. Work with project managers to communicate schedule and cost information to customers
- Production Planning: assist with the development of production plans, schedules, and cost estimates and provide feedback to project teams on the performance of developed plans, schedules and estimates.

#### 3.3.6.5 Laboratory Technical Support

The Contractor shall configure, develop, modify, maintain and repair RDT&E laboratory infrastructure to meet operational requirements. Tasks include but are not limited to:

- Fabricating and running electronic and optical cables to connect computer network components, avionics and RDT&E infrastructure
- Assembly, wiring, and integrating computers, electronics racks and avionics into the RDT&E infrastructure
- Assembling permanent and temporary structures to support test components using wood, pre-fabricated metal components, and COTS hardware
- Working with the facility and test engineers to develop event specific and permanent infrastructure requirements
- Maintaining, troubleshooting, and repairing RDT&E infrastructure
- Positioning and configuring test equipment in support of test events

#### 3.3.6.6 Laboratory Operations Support

The Contractor shall configure, operate and maintain simulation equipment and stations in support of laboratory events in accordance with current standards. Simulation equipment includes simulation crew stations, visual image generators, visual display systems, motion cueing systems, aural cueing systems, instructor operator stations, hardware-in-the-loop stimulation racks, real-time audio, video and data networks, and data acquisition systems. Tasks include but are not limited to:

- Positioning, setting up, and initiating simulation hardware to support scheduled simulation activities. This includes the coordinated movement of large and heavy systems such as mobile simulation crew-stations and electronics racks, establishing system electrical and mechanical connections, and initiating simulation software systems.
- Providing pre-event, event, and post-event operations support for simulation system based test and training events.
- Maintain electronic schedules of simulation labs, systems, infrastructure, and equipment to on-time availability of simulation resources and prevent scheduling conflicts.
- Performing corrective maintenance, scheduled preventive maintenance, and upgrades of simulation systems and infrastructure to maximize simulation system availability and performance within cost objectives.
- Maintaining appearance and performance of simulation systems with cleaning of simulations system components such as mirrors, lenses, crew-station displays, crew-station windows, and crew-station areas.

#### 3.3.6.7 Technical Support

The Contractor shall setup, operation, trouble-shooting, and maintain deployed and developmental simulation systems. Tasks include, but are not limited to:

- Assisting system operators and customers with technical questions, troubleshooting technical problems, and coordinating engineering support as required.
- Performing system periodic performance testing and calibrations on simulation systems, including control loading systems, motion systems, and visual display systems.
- Loading new visual and sensor databases.
- Pushing new software loads and cold-starting computer systems.
- Short-term system operation support.

#### **Administrative Support**

- 3.3.7.1 The Contractor shall provide general administrative and organization support for the IBST Simulation Division, Branches and associated laboratories and offices.
- 3.3.7.2 Contractor personnel supporting functions where Personally Identifiable Information (PII) or classified data may be handled, shall complete the Navy provided “Security Awareness training” and “Privacy Act Training” within forty-five (45) days of assignment to such functions and annually thereafter.

## **Manufacturing and Procurement**

### **3.3.12.1 Fabrication**

The Contractor shall manufacture, finish, assemble, install, deploy, maintain, repair, and upgrade mechanical supplies and systems for SD supported systems, projects and laboratories. Tasks include, but are not limited to:

- Fabrication of components and assemblies using hand-tools, break, shear, computer numerically controlled (CNC) router, and drill press. Components are typically fabricated from aluminum sheet metal, angle, channel, or tubing. Fabrication includes the use and replication of aircraft-representative structures using aircraft hardware (rivets, anchor nuts, etc.).
- Assembly of commercial and fabricated parts and assemblies.
- Providing integration support, including system installation, setup, trouble-shooting, and modification.

### **3.3.12.2 Wiring**

The Contractor shall manufacture, install, maintain, repair, and upgrade electrical supplies and systems for Simulation Division supported systems, projects, and facilities. Tasks include, but are not limited to:

- Fabrication of cable bundles.
- Wiring of electrical power and I/O distribution systems, control panels, circuit breaker panels, audio and video components.
- Fabrication and installation of optical cables.
- Cable bundle and electrical system installation.
- Connection of military and commercial electrical and electro-mechanical systems.

3.3.12.3 The Contractor shall tear-down, package, move, transport, install and setup of fixed and mobile simulation training systems products. Systems are to be moved to and from CONUS and OCONUS DoD facilities, trade shows and contractor facilities.

3.3.12.4 The Contractor shall provide on-site and off-site technical support to other teams, organizations, and facilities in support of project objectives.

3.3.12.5 The Contractor shall provide a licensed vehicle operator for Government owned and maintained trucks and forklifts. Forklift operation and vehicle operation is a periodic auxiliary function in support of manufacturing, deployment, and the movement of procured supplies.

3.3.12.6 The Contractor shall ensure compliance with safety, hazardous material control, and waste management programs in accordance with established procedures and applicable standards. Hazardous materials (paint, epoxy, lubricants, etc.) will be used in supply manufacture, repair and maintenance.

### **3.3.12.7 Procurement**

The Contractor shall provide materials and services in support of this contract. The Federal Supply System shall be utilized to the maximum extent possible. Provide inventory and kitting support for supply manufacturing efforts. Tasks include, but are not limited to:

- Generating and processing Requests for Material (RFMs).
- Coordinating procurements, including obtaining and analyzing quotes, selecting a recommended vendor, and creating sole-source and price justifications as required.
- Initiating purchases by coordinating with contract purchasing office or using Federal Supply System processes.
- Tracking order and shipment status (by project) and provide information and reports to Project Leads and Management.
- Entering and tracking all items into project inventories. Creating part kits from project inventories and provide to shops for assembly.
- Provide assistance with the preparation of material and service procurement supporting documentation including but not limited to Procurement Request (PR) forms, Purchase Card Order forms, and Contracts forms.
- Create orders for supplies and services using the DoD Electronic Mall (EMALL) and other Government supplied ordering systems.
- Procure materials and supplies in support of all activities under this SOW as defined at the TO level.
- Maintain stocks and perform inventory control of common office materials and supplies including but not limited to computer paper, printer toner cartridges, pens, pencils, notebooks, binders, staplers, staples, batteries, paper clips, and calendars.
- Perform technical property management tasks such as bar coding, entering data into the Property Management System, maintaining current and accurate data, and preparing and distributing reports.

#### 3.3.12.8 Shipping, Receiving, and Inventory

The Contractor shall ship, receive and inventory supplies for SD operations and projects. Tasks include, but are not limited to:

- Shipping and receiving materials to/from Simulation Division supported facilities in accordance with applicable standards.
- Generating and maintaining required shipping and receiving documentation.
- Generating and maintaining inventory documentation and databases to include Accountable Property System of Record (Navy ERP) inventories, Simulation Division inventories, and project inventories.
- Marking materials with required tracking/identification tags (to include NAVY, PAXIS, and Simulation Division identification tags) and entering markings/material data into inventory tracking systems.
- Entering and updating information in the inventory tracking system.
- Supporting material inventory audits.
- Creating and processing DD1149 forms for materials transferred to a new individual or another organization.
- Facilitating the transfer of materials to PMT and DRMO in accordance with applicable standards.

### 3.3.12.9 Quality Assurance

The Contractor shall perform Quality Assurance (QA) inspection for manufactured electrical and mechanical supplies, as well as receivable parts and assemblies that require inspection. Parts and assemblies are compared to the configuration controlled engineering drawings used to manufacture them and are checked for compliance with Simulation Division Workmanship and Inspection Standards. Mechanical fabrication QA tasks include, but are not limited to:

- Verifying the dimensional size and position of part features within prescribed engineering tolerances.
- Verifying the position, orientation, and mounting of assembly components.
- Verifying the correct parts and hardware were used.
- Inspecting supply condition and finish.
- Mechanical inspection is primarily performed using hand tools such as calipers, rulers, tape measure, and standard gauges. Electrical assembly and installation tasks include:
- Verifying the pin-out and continuity of electrical wires and proper use of electrical shielding.
- Verifying proper parts and materials are used.
- Verifying the integrity, durability, and cleanliness of terminations such as crimped connections, soldering, terminal board connections.
- Verifying the accuracy and legibility of wire markings.
- Verifying the appropriate use of strain relief.

#### **Clerical Support.**

3.3.13.1 The Contractor shall perform basic clerical tasks including operating basic office equipment such as personal computers, copiers, scanners, shredders, and fax machines, and sort, route, and distribute incoming materials, mail, and correspondence. The Contractor shall support the maintenance of current and archival Government files – both electronic and hardcopy.

### 3.3.13.2 Applications.

The Contractor shall operate on and work with Government business applications including, but not limited to:

- NAVAIR Corporate Applications
- Defense Travel System (DTS)
- Defense Information Security System (DISS)
- Base Access Security Information Control System (Basics II)
- NAVY Enterprise Resource Planning (ERP)
- IBST Share Point
- Government developed databases

### 3.3.13.3 Travel Support

The Contractor shall support the entry/processing of requests for travel orders, vouchers, and local vouchers using the DTS and track travel orders and claims. Contractor shall assist Government employees with DD 1056 “Application to Apply for a No-Fee Passport”, passport application, overseas training, and other overseas requirements outlined in the Foreign Clearance Guide (FCG). Provide answers on general DTS and Joint Travel Regulation (JTR) travel related questions.

#### 3.3.13.4 Training Support

The Contractor shall support Government employee training requests and schedule training as required. The Contractor shall enter Ad hoc training requests as required and provide instruction/assistance to Government employees entering training requests. The Contractor shall develop, procure, and provide specialized training to the Government.

#### 3.3.13.5 Visitor Support

The Contractor shall enter visitor data, schedule incoming visitors via Basics II and approve as required (alternate approver for Branch/Division Managers). They shall Process Visit Requests via DISS when the Security Management Office (SMO) code is provided, and prepare a Notification of Unclassified Visit form. They shall support security managers processing classified visits and participate in access control.

#### 3.3.13.6 Visitor Control

The Contractor shall perform Visitor Control duties by greeting and documenting all visitors according to IBST security procedures, including but not limited to customers, tour groups, base public works, inspectors, and maintainers. The Contractor shall monitor and control access to facility(s) and restricted areas under their responsibility by checking personnel passes, Common Access Cards (CAC) and validating security clearances utilizing DISS or other security database systems and visit requests. The Contractor may monitor visitor access using closed circuit television (TV) monitors. Anticipated buildings for performance include:

- Manned Flight Simulator facility (BLDG 2035)
- P-8 PAXSIL (BLDG 2865A)
- Joint Simulation Environment (BLDG 2191)
- IBST (BLDG 2109)

#### 3.3.13.7 Personnel Support

The Contractor shall generate reports from internal databases in order to identify the number of personnel within each competency, including reports, which depict hires/departures, reassignments, status of personnel, mandatory training, and awards. The Contractor shall assist in personnel tracking including check-in / check-out procedures, personnel database maintenance, organizational training requirements

#### 3.3.13.8 Meeting Support

The Contractor shall provide administrative and planning support for meetings and events. The Contractor shall maintain schedules for conference rooms identify appropriate locations for meetings, reserve and set-up meeting locations, send out information to attendees, plan and coordinate logistical, administrative, and security arrangements for leads and attendees, arrange for and check out IT and Audio Visual (AV) systems and equipment as needed.

### **Facility and Operations Support**

#### 3.3.14.1 Facility Support

The Contractor shall:

- a. Support facility scheduling, coordination and movement of simulation and test and evaluation assets in and around IBST facilities and associated laboratories, utilizing Government furnished equipment IAW NAVAIR procedures.

- b. Operate forklift, man-lift, crane, and floor sweeping equipment within the Government facilities.
- c. Operate, repair, and maintain equipment IAW NAVAIR procedures and the equipment technical and operations manuals.
- d. Support the modification, upkeep, reconfiguration and upgrade of Simulation Division facilities.
- e. Assist the Government Facility Manager in the planning of sustainment and improvement projects to existing facilities and the construction of new facilities to meet current and future requirements.
- f. Provide a security escort for personnel performing facility repair, maintenance, inspection, and improvement activities in secure government spaces.
- g. Support the development and establishment of facility management documents and plans.
- h. Coordinate with the Base Telephone Office (BTO) for the installation, maintenance, repair, replacement, and operation of telephone service within the facilities.
- i. Assist with the performance of industrial safety inspections throughout the facilities including but not limited to fire extinguishers and emergency exit signs on a schedule established by the Government Facility Manager and as required to meet Occupational Safety and Health Administration (OSHA) and base inspection requirements.
- j. Assist Government inspectors with all inspections and surveys in support of the base safety office, the base fire inspector, industrial hygiene, and environmental education surveys.
- k. Submit trouble calls and work requests to base public works department for facility maintenance and repair needs in coordination with the Government Facility Manager. The Contractor shall track the status of all trouble calls and works requests submitted and coordinate with Public Works to accomplish the necessary maintenance and repairs.
- l. Collect, file and update facility related records and documentation including but not limited to architectural drawings, electrical and power interconnection diagrams, intercom connection diagrams, Heating, Ventilation, and Air Conditioning (HVAC), fire alarm systems, facility occupancy, facility building numbers and dimensions, telephone assignments, and Navy Marine Corps Intranet (NMCI) computer drops.
- m. Assist the Government Facility Manager with the collection and documentation of facilities maintenance and repair requirements.

- n. Comply with all safety procedures in response to facility emergencies such as fire alarms to ensure the safety of personnel and to minimize damage to or loss of facilities, aircraft, systems, and equipment.
- o. Operate and utilize the Government's Facility Database to manage equipment infrastructure inspection, maintenance, and repair requirements and requests.
- p. Collect, store, transport, and dispose of excess facilities type materials such as office furniture and excess range equipment such as wire/cable, scrap metal, excess electronic equipment, printed circuit cards, and components IAW base Defense Reutilization and Marketing Office (DRMO) regulations.
- q. Provide snow and ice removal from on/around equipment and entrance ramps and uncovered walkways around facilities specified in the TO level. These activities shall not be considered mission essential in association with base emergency conditions as outlined in Section 3.1.4.
- r. Perform severe weather contingency, fire evacuation, and hazardous material incident response procedures IAW applicable plans and SOPs.
- s. Perform the duties as HAZMAT Coordinator including, but not limited to, ordering, receipt, disposal, and inventory.

### **Program and Project Management**

Note: For the purpose of this SOW, "Program" is defined as the entire contract effort, managed, administered and operated by the contractor. A "Project" is defined as an effort performed within the Program to meet specific technical and operational requirements for the SD and its customers executed by Integrated Product Teams (IPTs) consisting of contractors, government and military employees.

The Contractor shall:

- 3.3.15.1 Manage the contracted effort by providing best-value program performance within cost objectives.
- 3.3.15.2 Ensure effective management of contracted program/project resources as well as the financial and administrative aspects of the program with respect to the contract.
- 3.3.15.3 Provide a primary point of contact with the COR for the contract and oversee the production of deliverables.
- 3.3.15.4 Review and recommend the development and/or modification of program management plans, strategies, schedules and milestones.
- 3.3.15.5 Coordinate with Business Financial Manager (BFM) on the allocation and expenditure of funds committed to contract.
- 3.3.15.6 Support program and project managers with management and tracking of financial and contract administrative data.

- 3.3.15.7 Reviewing, revising, analyzing and recommending changes to policy and standards, project management plans and strategies. Prepare draft revisions of such documents.

### **Contract Material and ODC Purchases**

3.3.16.1 **Contract Material Purchases**

The Contractor shall obtain prior approval from the COR for material and ODC purchases utilizing the Government provided Contractor Material / ODC Purchase Request web based tool . In the course of execution, the Contractor may propose tool updates, an alternate form or method to be implemented with concurrence of the COR, Contractor PM and the Procuring Contracting Officer (PCO). Reference NAVAIR Clause 5252.242-9515 (Variation).

3.3.16.2 **Other Direct Costs (ODCs)**

Reference to ODCs within this contract are miscellaneous costs that are reimbursable under the contract, but do not fit easily under Travel or Material related expenses. Examples may include technical consulting or specialized services, shipping, insurance, approved training costs, etc. ODCs shall follow the same process above ( ) as for Material Purchases.

- 3.3.16.3 The Contractor shall maintain a list of entities to support work that may arise and overwhelm the current facilities, personnel, and expertise. Due to the quick response required, these entities may need to be accessed through alternative methods, other than formal sub-contractor addition. Additionally, for specific efforts the Contractor may need to team with vendors with subject matter expertise or capabilities that either do not have an accounting system allowing them to be accessed as a subcontractor under the cost plus fixed fee contract structure or the Contractor wishes to control cost risk through the utilization of a fixed price arrangement. To meet these requirements, the Contractor may enter into contractual agreements with other organizations and business entities, including consultants, specialized test equipment manufacturers, aircraft, and equipment original equipment manufacturers (OEMs), to enable the support or acquisition of unique talents, data, or materials for quick response and surge needs. This support may be in any area of the SOW. The estimate from the support entity shall contain enough detail as to allow the COR or Contracting Officer to determine fair and reasonable costs.

### **Travel**

- 3.3.17.1 The Contractor shall be required to travel in support of the SOW. The Government anticipates that the Contractor shall travel to various locations to perform installation, operational, maintenance, and developmental tasking identified in this SOW. The Contractor may also travel to various public and private facilities to obtain specialized training required to operate and maintain the Government owned vessels, targets, systems and equipment used under this contract.

- 3.3.17.2 Travel will be allowable only when it is essential to the performance of the tasks detailed in this SOW. The COR shall approve all travel performed in support of this contract prior to the commencement of the travel. COR approval for local travel expenses is required. Travel authorization request shall be submitted utilizing the Government provided web-based tool. The Contractor may propose an alternate request authorization method/tool to be approved by the COR and PCO.
- 3.3.17.3 Travel locations may include, but are not limited to, various commercial facilities, Contractor facilities, Navy facilities and ships, DoD facilities/installations, other Government agency offices (e.g. test ranges, operational activities, project / program offices, and support activities), including travel OCONUS.
- 3.3.17.4 For OCONUS activities, the Contractor shall enter all required data into the Synchronized Personnel Operational Tracker (SPOT) tool for generation of the Letter of Authorization.
- 3.3.17.5 The numbers of trips and types of personnel traveling shall be limited to the minimum required to accomplish work requirements. Personnel traveling for a common mission shall utilize common facilities and transportation (e.g. hotels and rental cars) as much as is practical. The Government will not reimburse travel costs incurred in replacing personnel at a TDY site when such replacement is at the Contractor's or employee's convenience. Exceptions may be made with COR approval when considering the circumstances of the stated travel.
- 3.3.17.6 Costs associated with travel and lodging shall be reimbursed in accordance with the Joint Travel Regulation (JTR).

## **3.4 Personnel Qualification**

### **3.4.1 Qualifications**

#### **3.4.1.1 Minimum**

The Contractor shall be responsible for employing personnel having at least the minimum level of education and training, and experience (including specialized experience) as stated under each labor category specified herein.

#### **3.4.1.2 Backfilling**

In situations where backfilling a non-key position is needed for a short period of time (less than two (2) months) due to the primary individual in the position being on leave (annual, medical, military, etc.) or has discontinued employment, the experience and/or education requirement may be reduced by the PCO, with COR concurrence, when requested in writing.

#### **3.4.1.3 College Degree**

When a labor category requires a specific degree for a particular program, only degrees from an accredited college or university as recognized by the U.S. Department of Education will be considered as meeting this requirement. (<https://www.ed.gov/accreditation>). This includes Associates, Bachelor's, Master's, or Doctorate degrees. Accreditation is not required when using degrees to substitute for years of experience.

**Business or Business Discipline.** When used in relation to educational or work experience requirements, “business discipline” shall mean any of the following specific subjects, disciplines, or areas of work experience only: Business Administration, Business Management, Project Management, Economics, Finance, Accounting, Data Analytics / Management, or related derivative degrees.

**Engineering or Engineering Discipline.** When used in relation to educational or work experience requirements, "engineering discipline” shall mean any of the following specific subjects, disciplines, or areas of work experience only: Aerospace, Computer, Electrical, Electronic, Mechanical, Software, Network, Cyber Security, Systems Engineering, or related derivative degrees.

**Scientific Disciplines.** When used in relation to educational or work experience requirements, “scientific discipline” shall mean a degree in the fields of Computer Science, Engineering, Information Technology, Mathematics, Data Science, Physics or related derivative degrees.

**Technical Disciplines.** When used in relation to educational or work experience requirements, “technical discipline” shall mean a degree in the fields of Engineering Technology, Cyber Security, Computer Science, Engineering, Mathematics, Operations Research or related derivative degrees

**3.4.1.4 Years of experience**

Years of experience shall mean full, productive years of participation. Productive years mean fifty-two (52) weeks of work reduced by reasonable amounts of time for holidays, annual, and sick leave. If participation was part-time, or if less than one-half of the standard workweek was spent performing qualifying functions, the actual time spent performing qualifying functions may be accumulated to arrive at equivalent full years of experience.

**3.4.2 Key Personnel**

**3.4.3**

For the purposes of NAVAIR Clause 5252.237-9501, Addition or Substitution of Key Personnel, a summary of key positions is provided in the table below. The following table represents those Labor Categories under which Key Personnel may be required at the individual order level.

<b>Key Labor Category</b>	<b>Level</b>	<b>Security Clearance</b>
Manager/Operations Manager	Senior	TOP SECRET
Engineering Technician	V	TOP SECRET

**3.4.4 Definitions**

**3.4.4.1 Academic year**

A full year or complete year of study at a junior college, college, university, or other academic institution, toward which at least thirty (30) semester hours or forty-five (45) quarter hours of undergraduate study, or eighteen (18) semester hours or twenty-seven (27) quarter hours of post graduate study, were completed.

#### 3.4.4.2 Accredited institution

A post-secondary educational institution (junior college, college, university, or technical, trade, or professional school) that was approved by an accrediting agency listed as nationally recognized by the U.S. Department of Education.

#### 3.4.4.3 Accredited program

An educational program or course of study offered by a post-secondary educational institution that was approved by an accrediting agency listed as nationally recognized by the U.S. Department of Education.

#### 3.4.4.4 Degree

An academic title conferred by an educational institution upon completion of a unified course of study; if not otherwise qualified, the term shall mean a degree at the Bachelor's, Master's or Doctoral levels only.

#### 3.4.4.5 Postgraduate degree

Masters, Ph.D., or other professional degree for which completion of an undergraduate curriculum or receipt of a bachelor's degree was a prerequisite.

### **3.4.5 Experience and Education Level definitions**

The labor category experience and education requirements corresponding to the four (4) levels are specified below (i.e., Apprentice, Junior, Journeyman and Senior) are as follows:

#### 3.4.5.1 APPRENTICE

An Apprentice working in a labor category within the functional areas of Engineering or Cyber / IT with no applicable experience but at a minimum has earned 60 credit hours towards a Bachelor's degree in a corresponding major, with a minimum overall GPA of 3.0. An apprentice level person is responsible for assisting more senior positions and/or performing functional duties under the oversight of more senior positions.

#### 3.4.5.2 JUNIOR

A Junior level person within a labor category generally has less than three (3) years of experience performing work related to the labor category functional description and a BA/BS degree (or a qualifying substitution as identified in this section). A Junior level person is responsible for assisting more senior positions and/or performing functional duties under the oversight of more senior positions.

#### 3.4.5.3 JOURNEYMAN

A Journeyman level person within a labor category has three (3) or more years of experience performing work related to the labor category functional description and a BA/BS degree or a qualifying substitution as identified in this section. A Journeyman level person typically performs all functional duties independently.

#### 3.4.5.4 SENIOR

A Senior level person within a labor category has at least ten (10) years of experience performing work related to the labor category functional description and a MA/MS degree, or a qualifying substitution as identified in this section. A Senior level person typically works on high-visibility or mission critical aspects of a given program and performs all functional duties independently.

A Senior level person may oversee the efforts of less senior staff and/or be responsible for the efforts of all staff assigned to a specific job.

### 3.4.6 Substitutions

The following general substitutions may be allowed for all Non-CSWF designated labor categories with the exception of Engineering labor categories. General substitutions shall not make up any specialized experience requirements.

#### 3.4.6.1 Bachelor's Degree

In lieu of a Bachelor's Degree, six (6) years of relevant work experience OR an Associate's Degree (with the same or similar curriculum focus) plus four (4) years additional work experience may be substituted.

#### 3.4.6.2 Master's Degree

In lieu of a Master's Degree, a Bachelor's Degree (with the same or similar curriculum focus) plus four (4) years additional work experience may be substituted.

### 3.4.7 Labor Category List

The Contractor is required to provide personnel having the following levels of professional and technical experience. The following identified labor categories represent the anticipated core categories that will be required for the predominance of the work under this contract

The list of core labor categories and their associated functions, experience, and education requirements are located below. **In the course of performance, specific project tasking may require SCI access across all labor categories.**

<b>LABOR CATEGORY LIST</b>				
<b>Position Title</b>	<b>Level</b>	<b>BLS SOC</b>	<b>SLCS Code (if applicable)</b>	<b>Number of Key Positions</b>
Manager / Operations Managers	Senior	11-1021	N/A	1
Project Management Specialist/Analyst	Junior	13-1198	N/A	N/A
Project Management Specialist/Analyst	Journeyman	13-1198	N/A	N/A
Project Management Specialist/Analyst	Senior	13-1198	N/A	N/A
Electrical and Electronic Engineering Technicians (Engineering Tech I thru V)	N/A	17-3023 / 30081 – 85*	N/A	N/A
Electrical and Electronics Drafters (Drafter / CAD Operator I - IV)	N/A	17-3012 / 30061 – 63*	N/A	N/A
Executive Administrative Assistant	Junior	43-6011	N/A	N/A
Executive Administrative Assistant	Journeyman	43-6011	N/A	N/A

Executive Administrative Assistant	Senior	43-6011	N/A	N/A
Procurement Clerk (Acquisition Support Specialist)	Junior	43-3061	N/A	N/A
Electrical Engineer (except Computers)	Junior	17-2072	N/A	N/A
Electrical Engineer (except Computers)	Journeyman	17-2072	N/A	N/A
Electrical Engineer (except Computers)	Senior	17-2072	N/A	N/A
Systems Engineer (Computer Hardware)	Junior	17-2061	N/A	N/A
Systems Engineer (Computer Hardware)	Journeyman	17-2061	N/A	N/A
Systems Engineer (Computer Hardware)	Senior	17-2061	N/A	1
Mechanical Engineer	Junior	17-2141	N/A	N/A
Mechanical Engineer	Journeyman	17-2141	N/A	N/A
Mechanical Engineer	Senior	17-2141	N/A	N/A
Aerospace Engineer	Junior	17-2011	N/A	N/A
Aerospace Engineer	Journeyman	17-2011	N/A	N/A
<b>Position Title</b>	<b>Level</b>	<b>BLS SOC</b>	<b>SLCS Code (if applicable)</b>	<b>Number of Key Positions</b>
Aerospace Engineer	Senior	17-2011	N/A	N/A
Computer Programmer I-III	N/A	15-1251 / 14071 - 14073	N/A	N/A
Anti-Tamper Systems Engineer	Journeyman	17-2061	N/A	N/A
Anti-Tamper Systems Engineer	Senior	17-2061	N/A	1
Engineering Apprentice	Apprentice	17-2199	N/A	N/A
Cyber Security Apprentice	Apprentice	15-1221	N/A	N/A
Logistician	Junior	13-1081	N/A	N/A
Logistician	Journeyman	13-1081	N/A	N/A
Logistician	Senior	13-1081	N/A	N/A
Software Quality Assurance Analyst and Testers – VV&A	Junior	15-1253	N/A	N/A
Software Quality Assurance Analyst and Testers – VV&A	Journeyman	15-1253	N/A	N/A
Software Quality Assurance Analyst and Testers – VV&A	Senior	15-1253	N/A	N/A

Software Developer	Junior	15-1252	N/A	N/A
Software Developer	Journeyman	15-1252	N/A	N/A
Software Developer	Senior	15-1252	N/A	N/A
Software Developer – Avionics	Senior	15-1252	N/A	N/A
Software Developer – Simulation Systems	Senior	15-1252	N/A	N/A
Software Developer – Visuals	Senior	15-1252	N/A	N/A
Software Developer - Tracking	Senior	15-1252	N/A	N/A
Tactical Operations and Air/Weapons Specialists	Journeyman	55-3000	N/A	N/A
Tactical Operations and Air/Weapons Specialists	Senior	55-3000	N/A	N/A
			<b>SLCS Code (if applicable)</b>	<b>Number of Key Positions</b>
<b>Position Title</b>	<b>Level</b>	<b>BLS SOC</b>		
Special and Tactical Operations Leaders	Journeyman	55-1000	N/A	N/A
Special and Tactical Operations Leaders	Senior	55-1000	N/A	N/A
Special and Tactical Operations Leaders – Tracking	Senior	55-1000	N/A	N/A
Special and Tactical Operations Leaders – Aviation	Senior	55-1000	N/A	N/A
Accounting Clerk III	N/A	43-3031 / 01013	N/A	N/A
Technical Manual Librarian	N/A	27-3042 / 13090	N/A	N/A
Technical Writer I, III	N/A	27-3042 / 30461, 30463	N/A	N/A
Order Clerk II	N/A	43-5061 / 01192	N/A	N/A
Shipping and Receiving Clerk	N/A	43-5071 / 21130	N/A	N/A
Inspectors, Testers (Quality Assurance)	N/A	51-9061 / 99240	N/A	N/A
Facilities Maintenance Technician	N/A	49-9071 / 23370	N/A	N/A
Facilities Maintenance Technician (Janitor)	N/A	37-2011 / 23370	N/A	N/A

Secretary	N/A	43-6014 / 01313	N/A	N/A
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**Manager / Operations Manager (KEY) (Senior):**

BLS: 11-1021

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Acts as the overall lead, manager and administrator for the contracted effort. Serves as the primary interface and point of contact with Government program authorities on technical and program/project issues. Oversees contractor execution of the contract requirements. Manages acquisition and employment of program/project resources. Monitors and ensures compliance with all applicable Federal and Department of Defense acquisition regulations.

**Project/Management Analyst (Junior, Journeyman, Senior):**

BLS: 13-1198

Minimum Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Applies analytic techniques in the evaluation of program/project objectives. Analyzes requirements, status, budget and schedules. Performs management, technical, or business case analyses. Collects, completes, organizes and interprets data relating to aircraft/weapon/project acquisition and product programs. Tracks program/project status and schedules. May provide expertise in a particular business and/or domain area such as logistics, financial management, change management, talent management; or in a specific technology area.

**Electrical and Electronic Engineering Technicians:**

BLS: 17-3029

- SCA 30081 Engineering Technician I
- SCA30082 Engineering Technician II
- SCA30083 Engineering Technician III
- SCA 30084 Engineering Technician IV
- SCA 30085 Engineering Technician V

Security Clearance Requirement: SECRET

Relevant Certifications: N/A

Apply electrical and electronic theory and related knowledge, usually under the direction of engineering staff, to design, build, repair, adjust, and modify electrical components, circuitry, controls, and machinery for subsequent evaluation and use by engineering staff in making engineering design decisions. Excludes "Broadcast Technicians" (27-4012).

**Electrical and Electronics Drafters:**

BLS: 17-3012

- SCA 30061 Drafter/CAD Operator I
- SCA 30062 Drafter/CAD Operator II
- SCA 30063 Drafter/CAD Operator III

Security Clearance Requirement: SECRET

Relevant Certifications: N/A

Prepare wiring diagrams, circuit board assembly diagrams, and layout drawings used for the manufacture, installation, or repair of electrical equipment.

**Executive Secretaries and Executive Administrative Assistants:**

BLS: 43-6011

Security Clearance Requirement: SECRET

Relevant Certifications: N/A

Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.

**Procurement Clerks (Acquisition Support Specialist):**

BLS: 43-3061

Security Clearance Requirement: SECRET

Relevant Certifications: N/A

Perform market research, compile information and records to draw up purchase orders for procurement of materials and services. Duties include informing customers of receipt, prices, shipping dates, and delays.

**Engineering Apprentice (Apprentice):**

BLS: 17-2199

Security Clearance Requirement: SECRET

Relevant Certifications: N/A

Acts under the direction of more senior positions to assist efforts to analyze, design, develop, implement, test, or evaluate software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems, or management information systems. Assists in the preparation of engineering and technical analyses, reports, change proposals and other technical documentation. Performs research into areas such as system integration, configuration management, quality assurance testing, or acquisition and resource management.

**Software / IT Systems Apprentice (Apprentice):**

BLS: 15-1221

Security Clearance Requirement: SECRET

Relevant Certifications: N/A

Acts under the direction of more senior positions to support the research into fundamental computer, network, software and information technology systems. Conduct research into modeling and simulation software tools and techniques. Conducts research into problems in the field of computer hardware and software with a focus on simulation systems architectures and hardware in the loop application environments.

**Logistics (Junior, Journeyman, Senior)**

BLS: 13-1081

Security Clearance Requirement: SECRET

Develop, maintain, and support audits of logistical data and of deliverable data packages, reports, lists, and manuals. Gather data for the development of required project documents. Coordinate with product teams, manufacturers, vendors and sub-contractors to develop and refine logistics data. Collect, calculate, analyze, and communicate component and system-level reliability and maintainability data. Develop recommended spare parts lists. Develop and maintain system

equipment inventory records. Track and validate project inventory. Obtain, register and verify that Item Unique Identification (IUID) bar codes are applied. Research alternate parts and part cost data. Coordinate and facilitate Physical Configuration Audits (PCA). Develop and presenting project logistics information at formal design reviews. Provide support in managing COTS/GOTS documentation. Develop logistical deliverable documentation.

Software Quality Assurance Analyst and Testers (Junior, Journeyman, Senior)

BLS: 15-1253

Security Clearance Requirement: TOP SECRET

Develop plans for, coordinate, perform, analyze, and document testing in support of the verification, validation, accreditation, and acceptance of developed simulation software and systems. Analyze, evaluate, and verify system and project requirements. Identify critical system requirements, determine the scope of testing required and establish test criteria for developed plans. Develop, maintain, and obtain approval for documented test plans, procedures, and mission scenarios. Work with project IPT and the customer(s) to refine and obtain approval of test plans. Support informal and formal System Engineering Technical Review (SETR) events and meetings. Schedule, support, and perform test events, including unit testing, integration testing, systems testing, customer acceptance testing, and regression testing. Perform software testing using manual and automated software tools, such as Automated Test and Re-Test (ATRT) tool. Generate test result reports and creating discrepancy reports to document and communicate test results and the level of system maturity.

Tactical Operations and Air/Weapons Specialists (Journeyman, Senior)

BLS: 55-3000

Security Clearance Requirement: SECRET

Provide subject matter expertise (SME) for a broad range of military matters including air-vehicles, sensors systems (RADAR, SONAR, etc.), weapons systems, communication systems, air-vehicle simulation and training, Live, Virtual and Constructive (LVC) simulations, and aircraft and aircraft system testing, and M&S Verification Validation and Accreditation. Development of recommended technical specifications based on an in-depth knowledge of the fleets operations and requirements. Communicate requirements for simulation models and LVC environment scenarios to software developers and/or participating in model development. Evaluate and test simulation models and LVC scenarios. Evaluate and analyze flight test data. Interface with customers and system operators. Support, plan, and/or operate simulation and test events in support of test and training objectives. Operate / manipulate model entities in distributed simulation events.

Special and Tactical Operations Leaders (Journeyman, Senior)

BLS: 55-1000

Security Clearance Requirement: TOP SECRET

Provide subject matter expertise (SME) for a broad range of military matters including air-vehicles, sensors systems (RADAR, SONAR, etc.), weapons systems, communication systems, air-vehicle simulation and training, Live, Virtual and Constructive (LVC) simulations, and aircraft and aircraft system testing, and M&S Verification Validation and Accreditation. Development of recommended technical specifications based on an in-depth knowledge of the fleets operations and requirements. Communicate requirements for simulation models and LVC environment scenarios to software developers and/or participating in model development. Evaluate and test simulation models and LVC scenarios. Evaluate and analyze flight test data. Interface with customers and system operators. Support, plan, and/or operate simulation and test

events in support of test and training objectives. Operate / manipulate model entities in distributed simulation events.

#### Accounting Clerk

BLS: 43-3031

- SCA 01013 Accounting Clerk III

Security Clearance Requirement: SECRET

Performs basic activities in support of program functions such as budgeting, auditing, and forecasting funding expenditures. Collects and reviews program financial data from various databases and other sources. Creates, maintains, and updates spreadsheets, and generates various reports as required. Prepares standard financial reports. Maintains appropriate records and documentation. Supports assigned managers in managing, tracking, monitoring, and reporting financial data as required.

#### Technical Library Clerk

BLS: 27-3042

Security Clearance Requirement: SECRET

Acquires, processes, stores and retrieves technical documents in various formats. Manages configuration control of documents, software and hardware in accordance with established procedures. Maintains a multimedia technical data library that consists of technical documents, technical data and reports, software, and product user licenses.

#### Technical Writer

BLS: 27-3042

- SCA 30461 Technical Writer I
- SCA 30463 Technical Writer III

Security Clearance Requirement: SECRET

The Technical Writer develops and edits material for reports, manuals, briefs, proposals, instruction books, catalogs, and related technical and administrative publications concerned with work methods and procedures, and installation, operation, and maintenance of technical systems. Typical products include maintenance and operations manuals, technical systems descriptions, logistical reports, project status reports, and design review documentation. This worker organizes material and completes writing assignment according to set standards regarding order, clarity, conciseness, style, and terminology.

#### Order Clerk

BLS: 43-5061

- SCA 01192 Order Clerk II

Security Clearance Requirement: SECRET

Processes orders for materials in support of Simulation Division operations, maintenance, and product/infrastructure development through the contract and Federal Supply system as required. Obtains quotations and supporting documentation for materials purchases from commercial vendors and develops documentation required to select a vendor and process the order. Tracks and reports on the status of material orders. Good writing skills and training in the Contractor's procurement system and the requirements for procuring materials under a DoD contract as well as Federal Supply System procedures are required.

### Shipping/Receiving Clerk

BLS: 43-5071

Security Clearance Requirement: SECRET

Performs clerical and physical tasks in connection with shipping goods of the establishment in which employed and receiving incoming shipments. In performing day-to-day, routine tasks, this worker follows established guidelines. Shipping and receiving duties typically involve: packing items for shipment, generating and maintaining required shipping/receiving documentation, initiating and facilitating shipment, and verifying receipt of materials. Inventory management duties typically involve: entering data into inventory tracking systems, generating inventory reports, verification of inventory data, marking materials with identification tags, and removal of items from inventory through transfer or removal processes.

### Inspectors, Testers (Quality Assurance)

BLS: 51-9061

Security Clearance Requirement: SECRET

Implements quality control of manufactured and procured materials to ensure compliance with specifications. Inspects manufactured mechanical, electrical, and electro-mechanical parts, assemblies, and installations using visual inspection and measurements to compare manufactured products to organizational quality standards and detailed drawing specifications. Inspects special and customized commercial products as part of a material acceptance process. The inspector maintains Quality Control files of inspection results, and works with fabrication and engineering to resolve identified discrepancies. Position requires adequate experience in inspection techniques, tools, and processes for mechanical and electrical inspections.

**The following labor categories REQUIRE a degree in the applicable functional area and therefore, years of experience, certifications, or demonstrated specialized expertise cannot be substituted for a Bachelor's degree.**

### Electrical Engineer (Apprentice, Junior, Journeyman)

BLS: 17-2072

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Applies engineering principles to investigate, analyze, plan, design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies systems engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes designs, develops, implements, tests, or evaluates software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems, or management information systems.

### Electrical Engineer (Senior)

BLS: 17-2072

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Performs tasks with little or no guidance. Has demonstrated knowledge in area of engineering expertise. Applies engineering principles to investigate, analyze, plan and design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies systems engineering experience to perform functions such as system integration, configuration

management, quality assurance testing, or acquisition and resource management. Analyzes, designs, develops, implements, tests, or evaluates software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems. OR; Leads the execution of complex tasks. Applies and integrates engineering principles to investigate, analyze, plan, design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes, designs, develops, implements, tests, or evaluates software related to engineering or functional requirements of military weapons systems, associated support systems.

Specialized Degree Requirements: Position requires a MS or MA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline. ALLOWABLE SUBSTITUTION: A BS or BA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline and an additional four (4) years of recent and relevant experience may be substituted for a MS or MA degree. These four (4) years of experience are in addition to the required minimum of ten (10) years to meet the "Experience" requirements below, therefore, requiring a total of fourteen (14) years of experience.

Additional Specialized Experience: At least three (3) years of experience directly related to naval systems. Demonstrated knowledge in area of engineering expertise is required.

**Aerospace Engineer (Apprentice, Junior, Journeyman)**

BLS: 17-2011

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Applies engineering principles to investigate, analyze, plan, design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies systems engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes designs, develops, implements, tests, or evaluates software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems, or management information systems.

**Aerospace Engineer (Senior)**

BLS: 17-2011

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Performs tasks with little or no guidance. Has demonstrated knowledge in area of engineering expertise. Applies engineering principles to investigate, analyze, plan and design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies systems engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes, designs, develops, implements, tests, or evaluates software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems. OR; Leads the execution of complex tasks. Applies and integrates engineering principles to

investigate, analyze, plan, design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes, designs, develops, implements, tests, or evaluates software related to engineering or functional requirements of military weapons systems, associated support systems.

**Mechanical Engineer** (Apprentice, Junior, Journeyman)

BLS: 17-2141

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Applies engineering principles to investigate, analyze, plan, design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies systems engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes designs, develops, implements, tests, or evaluates software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems, or management information systems.

**Mechanical Engineer** (Senior)

BLS: 17-2141

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Performs tasks with little or no guidance. Has demonstrated knowledge in area of engineering expertise. Applies engineering principles to investigate, analyze, plan and design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies systems engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes, designs, develops, implements, tests, or evaluates software, components, or systems related to engineering or functional requirements of military weapons systems, associated support systems. OR; Leads the execution of complex tasks. Applies and integrates engineering principles to investigate, analyze, plan, design, develop, implement, test or evaluate military weapons systems. Reviews and prepares engineering and technical analyses, reports, change proposals and other technical documentation. Applies engineering experience to perform functions such as system integration, configuration management, quality assurance testing, or acquisition and resource management. Analyzes, designs, develops, implements, tests, or evaluates software related to engineering or functional requirements of military weapons systems, associated support systems.

Specialized Degree Requirements: Position requires a MS or MA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline. ALLOWABLE SUBSTITUTION: A BS or BA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline and an additional four (4) years of recent and relevant experience may be substituted for a MS or MA degree. These four (4) years of experience are in addition to the required minimum of ten (10) years to meet the "Experience" requirements below, therefore, requiring a total of fourteen (14) years of experience.

Additional Specialized Experience: At least (3) three years of experience directly related to naval systems. Demonstrated knowledge in area of engineering expertise is required.

**Systems Engineer (Computer Hardware) (Junior, Journeyman)**

BLS: 17-2061

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Performs programmatic or technical roles identifying, formulating, designing and/or testing practical solutions to engineering problems and guide the engineering development of modern complex systems; and to employ systems engineering methods and tools in the development of systems. Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components.

**Systems Engineer (Computer Hardware) (Senior)**

BLS: 17-2061

Security Clearance Requirement: TOP SECRET

Relevant Certifications: N/A

Performs programmatic or technical leadership roles in an organization identifying, formulating, designing and/or testing practical solutions to engineering problems and guide the engineering development of modern complex systems; and to employ systems engineering methods and tools in the development of advanced complex systems and when appropriate, conduct research in applied systems engineering to advance the field. Research, design, develop, or test computer or computer-related equipment for commercial, industrial, military, or scientific use. May supervise the manufacturing and installation of computer or computer-related equipment and components.

Specialized Degree Requirements: Position requires a MS or MA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline.

ALLOWABLE SUBSTITUTION: A BS or BA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline and an additional four (4) years of recent and relevant experience may be substituted for a MS or MA degree. These four (4) years of experience are in addition to the required minimum of ten (10) years to meet the "Experience" requirements below, therefore, requiring a total of fourteen (14) years of experience.

Additional Specialized Experience: At least three (3) years of the experience directly related to airborne systems. Demonstrated knowledge in area of engineering expertise is required.

**KEY ONLY:** In addition to the duties above, this position also acts as the functional team lead for teams performing the above functions. This includes coordinating and overseeing the tasking of other team members, tracking project progress, and participating in planning of projects, resourcing, and events.

**Anti-Tamper Systems Engineer (Journeyman)**

BLS: 17-2061

Security Clearance Requirement: TOP SECRET

Relevant Certifications: shall apply for Anti-Tamper Certificate via the Navy AT Certification Holder within 90 days of performance start.

Performs programmatic or technical roles identifying, formulating, designing and/or testing practical solutions to engineering problems and guide the engineering development of modern complex systems; and to employ systems engineering methods and tools in the development of systems

Specialized Experience: At least two (2) years of the total experience directly related to anti-tamper methods, techniques, systems. Demonstrated knowledge in area of engineering expertise is required.

### **Anti-Tamper Systems Engineer (Senior) (KEY)**

BLS: 17-2061

Security Clearance Requirement: TOP SECRET

Relevant Certifications: shall apply for Anti-Tamper Certificate via the Navy AT Certification Holder within 90 days of performance start.

Performs programmatic or technical leadership roles in an organization identifying, formulating, designing and/or testing practical solutions to engineering problems and guide the engineering development of modern complex systems; and to employ systems engineering methods and tools in the development of advanced complex systems and when appropriate, conduct research in applied systems engineering to advance the field.

Specialized Degree Requirements: Position requires a MS or MA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline.

ALLOWABLE SUBSTITUTION: A BS or BA degree from an accredited college or university in Engineering, Mathematics, Physics or a related scientific discipline and an additional four (4) years of recent and relevant experience may be substituted for a MS or MA degree. These four (4) years of experience are in addition to the required minimum of ten (10) years to meet the "Experience" requirements below, therefore, requiring a total of fourteen (14) years of experience.

Additional Specialized Experience: At least five (5) years of experience directly related to anti-tamper methods, techniques, systems in DoD applications. Demonstrated knowledge in area of engineering expertise is required.

### **CSWF Designated Positions**

**Computer Programmer** (Basic, Intermediate, Advanced):

BLS: 15-1251

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 622, 631

Create, modify, and test the code, forms, and script that allow computer applications to run. Work from specifications drawn up by software developers or other individuals. May assist software developers by analyzing user needs and designing software solutions. May develop and write computer programs to store, locate, and retrieve specific documents, data, and information.

**Software Developer** (Basic, Intermediate, Advanced):

BLS: 15-1252

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CWSF Code 621, 652

Research, design, and develop computer and network software or specialized utility programs. Analyze user needs and develop software solutions, applying principles and techniques of

computer science, engineering, and mathematical analysis. Update software or enhance existing software capabilities. May work with computer hardware engineers to integrate hardware and software systems, develop specifications, and performance requirements. May and maintain databases within an application area, working individually or coordinating database development as part of a team.

**Web Developer and Digital Interface Designer** (Intermediate, Advanced):

BLS: 15-1257

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 421, 422, 621, 652

Develop and implement websites, web applications, application databases, and interactive web interfaces. Evaluate code to ensure that it is properly structured, meets industry standards, and is compatible with browsers and devices. Optimize website performance, scalability, and server-side code and processes. May develop website infrastructure and integrate websites with other computer applications.

**Computer Systems Analyst** (Basic, Intermediate, Advanced):

BLS: 15-1211

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 111, 211, 212, 221, 461, 511, 541, 612, 622

Analyze science, engineering, business, and other data processing problems to develop and implement solutions to complex applications problems, system administration issues, or network concerns. Perform systems management and integration functions, improve existing computer systems, and review computer system capabilities, workflow, and schedule limitations. May analyze or recommend commercially available software.

**Computer Network Architect** (Basic, Intermediate, Advanced):

BLS: 11-1021

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 451, 651, 652

Design and implement computer and information networks, such as local area networks (LAN), wide area networks (WAN), intranets, extranets, and other data communications networks. Perform network emulation/virtualization, analysis, and planning. May also design network and computer security measures. May research and recommend network and data communications hardware and software.

**Tactical Network and Computer Systems Architect** (Intermediate, Advanced (**KEY**)):

Additional Certification: Privileged Access (with Microsoft and Linux OS certification).

In addition to the experience description above, the Intermediate must demonstrate at least 1 year of the total experience and the Advanced must demonstrate at least three (3) years of the total experience in at least two (2) of the following functions:

Design and implementation of a weapons systems airborne and air to ground data communications networks and operating systems. Perform weapons systems data network emulation/virtualization, analysis, and planning. Design of weapons systems and associated network and computer security measures. Analyze systems, sensor, network and server resource consumption and control user access. Install and upgrade systems software and maintain software configuration management. Assist in network emulation/virtualization, analysis,

planning, and coordination between weapons systems networks, associated test and evaluation networks, and data communications hardware and software.

**KEY ONLY:** In addition to the duties above, this position also acts as the functional team lead for teams performing the above functions. This includes coordinating and overseeing the tasking of other team members, tracking project progress, and participating in planning of projects, resourcing, and events.

**Network and Computer Systems Administrator** (Basic, Intermediate, Advanced):  
BLS: 11-1021

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 451

Install, configure, and maintain an organization's local area network (LAN), data communications network, operating systems, and physical and virtual servers. Perform System monitoring and verify the integrity and availability of hardware, network, and server resources and systems. Review System and application logs and verify completion of scheduled jobs, including system backups. Analyze network and server resource consumption and control user access. Install and upgrade software and maintain software licenses. May assist in network emulation/virtualization, analysis, planning, and coordination between network and data communications hardware and software.

**Tactical Network and Computer Systems Administrator** (Intermediate, Advanced (**KEY**)):

Additional Certification: Privileged Access () with Microsoft and Linux OS certification.

In addition to the experience description above, the Intermediate must demonstrate at least 1 year of the total experience and the Advanced must demonstrate at least three (3) years of the total experience in at least two of the following functions:

Install, configure, and maintain a weapons systems airborne and air to ground data communications network, operating systems, and physical and virtual servers. Perform System monitoring and verify the integrity and availability of hardware, network, and server resources and systems. Analyze systems, sensors, network and server resource consumption and control user access. Install and upgrade systems software and maintain software configuration management. Assist in network emulation/virtualization, analysis, planning, and coordination between weapons systems networks, associated test and evaluation networks, and data communications hardware and software.

**KEY ONLY:** In addition to the duties above, this position also acts as the functional team lead for teams performing the above functions. This includes coordinating and overseeing the tasking of other team members, tracking project progress, and participating in planning of projects, resourcing, and events.

**Cyber Analyst/Modeler** (Operations Research Analyst) (Basic, Intermediate, Advanced):  
BLS: 15-2031

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 111, 461, 511, 541, 612, 622

Formulate and apply mathematical modeling and other optimizing methods to develop and interpret information that assists management with decision-making, policy formulation, or other managerial functions. May collect and analyze data and develop decision support software, services, or products. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation

**Cyber Security Vulnerability Researcher** (Basic, Intermediate, Advanced (**KEY**)):

BLS: 15-1221

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 111, 221, 461, 511, 531, 541, 612, 622

Conduct research into fundamental computer and information science as theorists, designers, or inventors. Conduct research into cyber threats, adversarial offensive and defensive tools, techniques, and methods, and mitigation solutions. Develops solutions to problems in the field of computer hardware and software with a focus on system security and vulnerability.

**KEY ONLY:** In addition to the duties above, this position also acts as the functional team lead for teams performing the above functions. This includes coordinating and overseeing the tasking of other team members, tracking project progress, and participating in planning of projects, resourcing, and events. Additional Specialized Experience: A minimum of five (5) additional years of experience related to performing the above functions in a DoD/Other Government Agency platform/weapons systems or DoD/Other Government Agency IT infrastructure environment.”

**Cyber Security Vulnerability Researcher – FORENSIC ANALYST** (Computer and Information Research Scientist) (Basic, Intermediate, Advanced (**KEY**)):

BLS: 15-1221

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 211, 212

Conducts investigations into cyber events related to information technology (IT) systems, networks, hardware, and software. May conduct research into cyber threats, tools, techniques, and methods. Collects, processes, preserves, analyzes and presents evidence to support vulnerability research, mitigation, test and evaluation.

**KEY ONLY:** In addition to the duties above, this position also acts as the functional team lead for teams performing the above functions. This includes coordinating and overseeing the tasking of other team members, tracking project progress, and participating in planning of projects, resourcing, and events. Additional Specialized Experience: A minimum of five (5) additional years of experience related to performing the above functions in a DoD/Other Government Agency platform/weapons systems or DoD/Other Government Agency IT infrastructure environment.”

**Information Security Analyst** (Basic, Intermediate, Advanced):

BLS: 15-1212

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 111, 211, 212, 221, 461, 511, 531, 541, 612, 622

Plan, implement, upgrade, or monitor security measures for the protection of computer networks and information. May ensure appropriate security controls are in place that will safeguard digital files and vital electronic infrastructure. May perform cyber forensic analysis in responses to cyber threats in hardware and software environments.

**Data Scientist** (Basic, Intermediate, Advanced):

BLS: 15-2051

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 421, 422

Develop analytics methods and processes; identifies appropriate methods and tools to extract knowledge from data; leverages large volumes of data to answer challenges; prepares data for use in predictive and prescriptive modeling (data cleansing); automates organizational work through scripts for data processing and analytics; develops and applies algorithms and machine learning methods; applies analytic methods and software tools to design and develop analytic programs; performs mathematical modeling.

**Data Systems Analyst** (Basic, Intermediate, Advanced):

BLS: 15-2051

Security Clearance Requirement: TOP SECRET

Relevant Certifications: CSWF Code 421, 422

Discovers opportunities for data acquisition and data systems integration; performs research, design and development for databases and data processing systems; develops data systems, architectures and models; leverages high-performance computing infrastructures into systems architecture; recommends best architectures, tools, and technologies to address organizational needs.

**Training and Development Specialists** (Basic, Intermediate, Advanced):

BLS: 13-1151

Security Clearance Requirement: SECRET

Relevant Certifications: CSWF Code 711, 712, 751

Design or conduct work-related training and development programs in applicable domain areas to improve individual skills or organizational performance. May analyze organizational training needs or evaluate training effectiveness.

### **3.5 Contract Deliverable Requirements List**

The Contractor shall, when specified or otherwise required, provide the following data outline below in support of the technical task. To enable electronic data harvesting and cross-checking, personnel names and labor categories shall be EXACTLY the same across all CDRLs that use them and be consistent with the descriptions established at the TO level.

#### **3.5.1 Contract Financial Summary Report (CDRL A001)**

The Contractor shall provide a monthly financial summary report IAW CDRL A001. This report shall cover all orders. The report shall provide an overall contract summary of awarded ceiling, funded ceiling, unfunded committed ceiling from unexercised priced options, obligations not expensed, and expenditures at the basic level of the contract and for each order. At the order level, the report shall include an itemized breakout of ALL work accomplished since submittal of the last report, both monthly and cumulative planned versus actual man-hour labor costs expended by CLIN, labor category, material, and travel costs. The report shall provide an order financial health projection based on average labor burn rates. The report shall include a summary table of the average hourly fully burdened rate across all orders in execution by labor category, level, and location (Government site and Contractor site).

#### **3.5.2 Monthly Progress Report (CDRL A002)**

The Contractor shall provide a monthly progress report in accordance with CDRL A002. This report shall list the monthly accomplishments and upcoming task order/project objectives for each task order/project and each identified financially tracked project task. Trips and significant events shall also be addressed. Hiring Actions and Action Items status and duration for all open requests shall be addressed, Risks and mitigation approaches shall be addressed. The report shall be organized by task order, project, then by financially tracked task, as applicable.

#### **3.5.3 Contractor Personnel Locator Report (CDRL A003)**

This report identifies all Contractor and subcontractor personnel working under this contract as of the date of the CDRL, and identifies those that have been added or removed since the previous submission. The report shall include name, labor category, employed by, designated cyber security work force position (yes/no), security clearance level, security clearance verification date, assigned task order(s)/technical direction letter, start date, separation date and location of performance. The personnel names shall be the exact same format and detail as used in the payroll report to allow for cross-referencing. The labor categories used shall be the same as those listed in the contract in Section 3.4.6.

#### **3.5.4 Government Property Report (CDRL A004)**

This report identifies all non-consumable Government Furnished Property (GFP) and Contractor Acquired Property that is or has been in the possession of the contractor at any time. This monthly report will identify each item, quantity, the replacement value, the location, purchase order number (CAP only), date of receipt and date of transfer of custody to the Government, and the Government and Contractor technical point of contact.

#### **3.5.5 Accident/Incident Report (CDRL A005)**

An accident /incident report documents the circumstances, incident, and the extent of injuries or damages sustained both to equipment and personnel.

#### **3.5.6 OPSEC Plan (CDRL A006)**

The OPSEC plan details the methods, policy, processes and infrastructure to protect classified and sensitive information to be used at a Contractor's and subcontractor's facilities during the performance of this contract.

### **3.5.7 Material Tracking Report (A007)**

This report identifies all non-consumable Government Furnished Property (GFP) and Contractor Acquired Property that is or has been in the possession of the contractor at any time. This monthly report will identify each item, quantity, the replacement value, the location, purchase order number (CAP only), date of receipt and date of transfer of custody to the Government, and the Government and Contractor technical point of contact.

### **3.5.8 Transition Out Plan (CDRL A008)**

The Transition Out Plan is the plan to enable a non-incumbent Contractor to transition to the follow-on contract at the conclusion to this contract. The Transition Out Plan is to include the following minimum elements: Work Turnover, Quality Assurance Plan, Risk Mitigation Strategies, Data/Information Transfer, and Personnel Tasking List. The Contractor shall establish and maintain effective communication with the incoming Contractor and Government personnel for the period of transition via weekly status meetings.

### **3.5.9 Other Reporting**

The Government may require the Contractor to provide additional reporting, documentation, and schedules in accordance with deliverable requirements (CDRLs) incorporated at the order level. Reporting should be in sufficient detail and quality to meet the requirement established in the individual task orders and shall be in compliance with the standards and guidelines in Section 3.0. Other reporting requirements may include, but are not limited to:

- Technical reports, documentation, requirements, data, evaluations, and analysis.
- Agenda, minutes and presentation materials for meetings, presentations, and conferences.