Section C - Descriptions and Specifications PERFORMANCE WORK STATEMENT

PERFORMANCE WORK STATEMENT
Joint Biological Agent Decontamination System (JBADS)

C.1. SCOPE. This Performance Work Statement (PWS) defines the Contractor activities in support of the Engineering and Manufacturing Development (EMD) phase of the Joint Biological Agent Decontamination System (JBADS) program. There are contract Options for Full Rate Production (FRP) and Contractor Logistics Support (CLS) to fulfill Sustainment and Operational Mission Support requirements.

C.2. BACKGROUND. The JBADS is an Acquisition Category (ACAT) III joint program with participation from the United States Air Force. The Joint Program Executive Office for Chemical and Biological Defense (JPEO-CBD) is the Milestone Decision Authority (MDA). The Joint Project Manager for Protection (JPM P) manages the effort and the JBADS Product Management Office (PMO) executes the program.

The goal of JBADS is to provide the United States (U.S.) Air Force Air Mobility Command (AMC) with the ability to thoroughly decontaminate a U.S. Transportation Command (TRANSCOM) C-130 (H/J/J-30) model aircraft from biological warfare agents, to allow unrestricted use through the employment of hot, humid air (170 degrees F +/-5 degrees and 90% +/- 5% relative humidity).

The JBADS program will enter the acquisition cycle at Milestone (MS) B and immediately begin execution of EMD phase activities. The JBADS program is able to enter at MS B due to the JBADS Joint Capability Technology Demonstration (JCTD) that was conducted in 2014-2015. The JCTD demonstrated a log-6 decontamination capability, using hot, humid air. The JCTD system was composed of an Aircraft Enclosure (AE) and Aircraft Decontamination Units (ADUs), the latter comprised of blowers, heaters, humidifiers and chillers connected to the AE via ducting.

At the conclusion of the JCTD desired improvements to the JBADS system were identified as follows:

- Aircraft Enclosure must allow for quick and safe ingress/egress. [*Note: The JCTD system structure was built in a conformal fashion around and above the aircraft.*]
- Provide ability for sequential and potentially sustained decontamination operations.
- Elimination of the escape of the hot humid air outside of the AE.

Following completion of the JCTD the Government initiated improvements to the AE design. The Government's modified AE design is provided in Attachment XX; to date the Government has not built or verified functionality of the JBADS using this modified AE design.

C.2.1 Overview. During the base period of this contract, the contractor will provide a production representative JBADS that will be built and verified during the EMD phase. This production representative JBADS will undergo Operational Assessment (OA) and Initial Operational Test and Evaluation (IOT&E). The JBADS will consist of an AE, ADUs, a Control Module and Control Software. The JBADS under this contract must have the capacity to enable aircraft to enter and exit (allow for 5 feet clearance on all sides of the aircraft), provide heat (170 degrees F +/- 5 degrees), and humidity (90% relative humidity +/- 5%) during decontamination, provide adequate control to ensure no condensation forms within the AE or on the Aircraft surfaces, and provide real-time monitoring. (The Contractor may utilize the Government's modified AE design, or may propose improvements to the Government's modified AE design, or propose a unique/new AE design of their own.)

A Start of Work Meeting will be held after contract award. In conjunction with the Start of Work Meeting and prior to fabricating the initial JBADS for verification testing and OA, the JBADS will undergo a Critical Design Review (CDR) to establish the initial product baseline. The detailed specifications and technical data for JBADS materials will remain under Contractor control but Class 1 changes to materials will require Government approval starting with CDR and continuing throughout the life cycle of JBADS. Upon completion of verification testing, the Contractor shall support and attend a combined System Verification Review (SVR)/Production Readiness Review (PRR) to verify the production baseline.

During the first option period of this contract, the contractor will provide four (4) Full Rate Production JBADS that will encapsulate a C-130J and provide heat and humidity to decontaminate the aircraft in accordance with the JBADS Performance Specification (PSPEC) Version X.X (Attachment XXX). In addition, the contractor will retrofit the production representative JBADS from the EMD phase.

If the option for FRP is exercised, the Contractor shall fabricate the four (4) FRP systems, based on the product description delivered to the Government at the conclusion of the EMD phase, and shall collaboratively conduct a Physical Configuration Audit (PCA) on these systems. Performance requirements for FRP, including updated details of the first article and conformance inspections, will be included in the JBADS PSPEC that will be updated following the Physical Configuration Audit (PCA).

During Option periods X through X, the contractor will provide sustainment CLS that will enable storage and storage maintenance (to include a yearly health and availability inspection), and conduct a bi-annual Full System Exercise. Option periods X through X will also encompass CLS that facilitates the world-wide deployment of the JBADS.

C.3. APPLICABLE DOCUMENTS. The following documents specified form a part of this PWS to the extent specified herein. The most recent revision of the referenced document at the time of contract shall be used unless otherwise specified. In the event of conflict between the applicable documents and this PWS, the PWS shall take precedence. All second tier and below references cited in mandatory compliance documents shall be considered as guidance only. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

C.3.1. Military Standards and Specifications.

MIL-PRF-32216	Evaluation of Manuals and Preparation of Supplemental Data
MIL-STD-129	Military Marking for Shipment and Storage
MIL-STD-130	Identification Marking of U.S. Military Property
MIL-STD-882	Standard Practice for System Safety
MIL-STD-1472	Human Engineering
MIL-STD-2073-1	DoD Standard Practice for Military Packaging

C.3.2. Federal Standard - Mandatory.

Not applicable

C.3.3. Handbooks - Guidance Only.

MIL-HDBK-61A Configuration Management Guidance

MIL-HDBK-470 Designing and Developing Maintainable Products and Systems

MIL-HDBK-781 Reliability Test Methods, Plans, and Environments for Engineering Development, Qualification, and Production

MIL-HDBK-881	Work Breakdown Structures For Defense Materiel Items
MIL-HDBK-2155	Failure Reporting, Analysis and Corrective Action Taken

C.3.4. Other Government Documents. Unless otherwise stated, the following documents may be obtained from http://www.documentservices.dla.mil.

DoDI 5000.02 Operation of the Defense Acquisition System, dated January 2015

C.3.5. Non-Government Documents.

ASME Y14.34 Associated Lists

ASME Y14.100 Engineering Drawing Practices

(Copies of ASME documents are available from www.asme.org)

ASTM D3951 Standard Practice for Commercial Packaging

(Copies of ASTM documents are available from www.astm.org)

EIA-649 National Consensus Standard for Configuration Management

(EIA documents are available from www.eia.org.)

C.3.6. Forms.

(Department of Defense (DD) and Secretary of Defense (SD) Forms are available from the DoD Forms Management Program http://dtic.mil/whs/directives/infomgt/forms/index.htm)

DD Form 254 Contract Security Classification Specification, DoD

Standard Form 368 Product Quality Deficiency Report

C.4. REQUIREMENTS. The contractor, as an independent contractor and not as an agent of the Government, shall determine the resources necessary (e.g., materials, equipment, personnel, and facilities) to perform the tasks described herein. The Contractor shall fabricate, package, deliver, prepare associated documentation and deliverables, and provide management, technical and field service support to include training for the JBADS program in accordance with (IAW) the quantities, packaging and delivery schedule requirements identified in Section B, the JBADS PSPEC (Attachment X) and the individual task/delivery orders. In addition, the Contractor shall support and participate in technical reviews and audits including CDR, SVR/PRR, PCA, and MRAs IAW with this PWS, and shall prepare and deliver data in accordance with Section B and the Contract Data Requirements List (CDRL). The Government has the unilateral right to exercise contract options for FRP and Sustainment CLS.

C.4.1. ENGINEERING AND MANUFACTURING DEVELOPMENT

C.4.1.1. Program and Data Management.

C.4.1.1.1. Program Management. The Contractor shall establish and maintain program management practices throughout the period of performance. Program management practices shall provide visibility into the Contractors' organization and techniques used in managing the program, specifically subcontractor and data management. Documentation shall be readily available to Government representative(s) during planned visits. The Contractor shall provide quarterly Progress, Status and Management Reports to indicate the progress of the support effort and the status of the program as it applies to the Contractor's product, assigned tasks, reports, costs, and inform the Government of existing or potential problems. The Progress, Status, and Management Report shall be submitted using a Government approved Work Breakdown Structure (WBS) indenture level.

(CDRL A0001) DI-MGMT-80227, Contractor's Progress, Status and Management Report

C.4.1.1.2. Subcontractor Management. The Contractor is responsible for performance of requirements delineated in this PWS, and shall institute appropriate management actions relative to subcontractor performance including Certificates of Compliance at a minimum, which shall be provided to the Government.

(CDRL A0002) DI-MISC-81356A, Certificate of Compliance

C.4.1.1.3. Data Management. The Contractor, in developing information that will be furnished to the Government, shall make the maximum use of existing data and technical information to minimize data redundancy and eliminate duplication of effort. The Government reserves the right to review all data associated with and developed for the JBADS.

C.4.1.1.3.1. Technical Proposal. The Contractor's Technical Proposal, as negotiated and accepted by the Government, shall be incorporated by reference into the resultant contract. Information contained in the Offeror's proposal regarding organization, staffing, manning levels, and experience or education qualifications of personnel that are to be utilized in performance of this contract shall also be incorporated into the resultant contract. Any changes in these arrangements are to be submitted to the contracting officer in advance for approval.

C.4.1.1.3.2. Schedule Planning. The Contractor shall develop and maintain an accurate schedule of program events and recommended program activities, including review and evaluation techniques that provide for the timely execution of training, field support and commercial products to execute the Government's test schedule while at the same time satisfying all requirements in a cost effective manner. The program schedule shall include all significant events, and a Program Milestone Chart shall depict major tasks, shipping/deployment dates, technical reviews and test events from start to completion of the contract. The Contractor shall notify the Government in writing of any anticipated or projected work stoppages or delays that will impact schedules.

(CDRL A0003) DI-MGMT-81861, Program Schedule

The Government's general schedule for the JBADS program is displayed in Attachment X.

C.4.1.1.3.3. Contract Work Breakdown Structure. The Contractor shall maintain the Contract Work Breakdown Structure (CWBS) and dictionary using MIL-HDBK-881 for guidance only. The CWBS shall provide the basis for further extension by the Contractor to lower levels during the performance of the contract. The Contractor shall extend the CWBS to the appropriate level required to provide adequate internal management, surveillance, and performance measurement, regardless of the reporting level stipulated in the contract for Government visibility. The Contractor shall use the CWBS as the primary framework for contract planning, budgeting, and reporting of the cost, schedule and technical performance status to the Government. The Contractor shall update the CWBS during the execution of the contract.

(CDRL A0004) DI-MGMT-81334D, Contract Work Breakdown Structure (CWBS)

C.4.1.1.3.4. Assignment of Responsibility and Authority. The Contractor shall identify the organizational elements responsible for the conduct of the activities delineated in this PWS. Responsibilities shall be assigned and clear lines of authority defined for determining and controlling the resources necessary to satisfy each element of this PWS. The following roles shall be considered Key Personnel. The Contractor shall designate in writing the appointment of personnel to accomplish these responsibilities. The Contractor shall notify the Government within ten (10) days of any changes regarding authority, responsibility, or key personnel changes

made by the Contractor during the period of performance. Note: It is acceptable that a single individual may fill multiple personnel roles.

a. Program Manager. The Contractor shall designate a Program Manager (PM) who shall possess sufficient corporate authority to manage, direct, execute and control all elements of the contract. The PM shall serve as the primary point of contact between the Contractor and the Government, and be responsible for the coordination of all Contractor activities related to the contract such as configuration management and quality control/assurance elements.

b. Test Manager. The Contractor shall designate a Test Manager who shall possess sufficient authority to manage, direct, execute and control all test elements of the contract.

C.4.1.2. Government Furnished Property.

C.4.1.2.1. Government Furnished Equipment. The Government will provide the Contractor a list of available Government Furnished Equipment (GFE) within 60 days of award. Items will be provided to the contractor within 60 days of receipt of contractor's written request to the Program Office. Proposals shall list required delivery date of Government Furnished Property (GFP) to meet proposed delivery schedules. The Contractor shall provide for accountability, security and storage for the GFP provided. The Contractor shall inspect and inventory all GFP received and identify and report any discrepancies/deficiencies to include associated costs (materials, labor and test (if applicable) for repair or replacement of the GFP to like new conditions. The Government will forward an accountability agreement to the Contractor for signature on an annual basis.

(CDRL A0005) DI-MGMT-80389B, Receipt of Government Materiel Report

C.4.1.2.2. Government Furnished Information. The Government will furnish the Government Furnished Information (GFI) identified in the contract including deployment scenarios, Concept of Operations (CONOPS), AE drawings upon written request from the Contractor to the Program Office. The Contractor shall notify the Government of any deficiencies in the GFI received.

(CDRL A0006) DI-MGMT-80596, Government Furnished Information Deficiency Report

C.4.1.3. Meetings, Formal Reviews, Conferences, and Audits.

C.4.1.3.1. Contractor Responsibilities. The Contractor shall attend and support the meetings, formal reviews, conferences, and audits (hereinafter called "reviews"). The reviews shall be conducted at a time and place mutually agreed to or via teleconference and/or virtual collaborations. All such reviews shall be included in the program schedule and may be held concurrently with test events and/or other reviews with the Government’s approval. The Contractor shall provide the Government with conference presentation materials at least two weeks prior to each review, unless specified otherwise in the detailed section pertaining to each review. The Government reserves the right to cancel or postpone any review or to require any review to be scheduled at critical points during the period of performance. Action item documentation, assignment of responsibility for completion and due dates shall be determined

prior to adjournment of all reviews. The Contractor shall provide written responses to action items assigned during the review, within the time allowed, following each review.

(CDRL A0007) DI-ADMN-81373, Presentation Material

C.4.1.3.2. Start of Work Meeting. The Contractor shall participate in a Start of Work Meeting at a place mutually agreed to within 30 calendar days after Contract Award. The Start of Work Meeting shall include the potential for virtual attendance so that all personnel need not attend in person, although the key personnel supporting the contract are expected to attend in person. The purpose of the Start of Work Meeting is for the Contractor to review and demonstrate to the Government the management and quality procedures, review of technical processes, and to establish milestone schedule dates for critical program activities. The Contractor shall introduce and review the assignment of key personnel and program implementation processes.

C.4.1.3.3. In-Process Review. In-Process Reviews (IPR) will be held on a quarterly basis or as needed basis if problems arise, at a date and location (e.g., in person or by telecom and DCO) mutually agreed upon. The Contractor may assume one review will be held at Aberdeen Proving Ground, MD each year. The Government reserves the right to cancel any review or to require any review to be scheduled during the period of performance. The Contractor's progress, management, technical support services (if any), administrative, assurance of compliance with contract requirements, program status, funding, problem identification and resolutions shall be agenda items. Actual versus expected performance of each area shall be addressed. The Contractor shall prepare presentation materials providing an overview of all agenda items.

C.4.1.4. Systems Engineering.

C.4.1.4.1. Systems Engineering. The Contractor shall establish and maintain an effective systems engineering program throughout the development, production, and operations and support phase activities under the contract.

C.4.1.4.2. Systems Engineering IPT. The Contractor shall participate as required in the Systems Engineering (SE) IPT.

(CDRL A0008) DI-ADMN-81505 Report, Record of Meeting/Minutes (SE IPT)

C.4.1.4.3. Technical Reviews. Technical reviews will be conducted in accordance with the Department of Defense Instruction (DoDI) 5000.02, Operation of the Defense Acquisition System and the Defense Acquisition Guidebook to include the following:

C.4.1.4.3.1. Critical Design Review. The Contractor shall participate in a Critical Design Review (CDR) to be held in conjunction with the Start of Work Meeting and have all studies, estimates, analyses, designs, and reports available for the Government to review at least 20 days prior to the CDR. The final design, which becomes the initial product baseline upon successful completion of the CDR, shall include "build-to" specifications for hardware (product, process, material specifications, engineering drawings, Safety Data Sheets (SDS), and other related data). The Contractor shall provide a detailed review of the hardware design for the JBADS and all data

items required by the contract. The Contractor shall provide traceability that demonstrates the product design and configuration established at CDR fulfills the performance requirements of the JBADS, and present the methods used to verify and validate the performance. The Contractor shall present the results of internal analyses conducted on product composition and system hardware for Government assessment to ensure a thoroughly detailed analysis of the complete end-to-end system to satisfy the established requirements. Topics the Contractor shall cover at the CDR shall include, but not be limited to the following:

a. Detailed evaluation of Aircraft Enclosure (AE) Design/composition, Fabrication, Quality Testing, Specifications, and Drawings

b. Detailed evaluation of Aircraft Decontamination Unit (ADU) Electrical/Mechanical Design

c. Testing results and documents.

d. Detailed Reliability, Availability and Maintainability Analysis.

e. Environment, Safety, and Occupational Health (ESOH) Analysis.

f. Packaging/Handling/Storage/Transportation.

g. Transportability.

h. Quality and Producibility, including identification of high cost, high risk and long lead components.

i. Diminishing Manufacturing Sources and Material Shortages (DMSMS).

j. Open Systems Design, as relevant.

k. Summary review of overall system performance versus Performance Specifications.

C.4.1.4.3.2. System Verification Review/ Production Readiness Review. The Contractor shall participate in the SVR / PRR at a time and place mutually agreed to in order to formally evaluate the Contractor's production readiness, identify existing or projected manufacturing problems, and areas of risk. The Contractor shall present a summary of, and make all studies, estimates, analyses, designs, audits, test results, and reports available for the Government to review at least 20 days prior to the SVR/PRR. The SVR/PRR is a multi-disciplined product and process assessment to ensure that the JBADS can proceed into FRP within cost, schedule, risk, and other system constraints. It also establishes and verifies final product performance. The review dates shall be Contractor-proposed, Government-approved, and incorporated into the program schedule. The agenda of the SVR/PRR shall include, as applicable, at least the following considerations:

a. A review of the Contractor’s production plans to include cost and schedule considerations to fulfill FRP requirements under the respective Contract Option.

b. A status review of previously recommended actions to reduce cost, manufacturing risk, and sustainment concerns.

c. The identity of open production concerns which require additional direction/effort to minimize risk to the production program.

d. Identification and status of long lead items for production, if any.

e. Identify all relevant testing that has been conducted.

f. Clear identification of system configuration as tested.

g. Requirements verification – review of the traceability between requirements and system verification results.

h. Specific review of system's capabilities against KPP.

i. Specific review of all "Not Met" or "Met with Exception" results.

j. Identify any outstanding discrepancies found as a result of testing.

k. Recommended plan of action for unmet/untested requirements.

C.4.1.4.4. Manufacturing Readiness Assessment. The Contractor shall participate in a MRA during the EMD phase. The Contractor shall demonstrate the ability to attain a minimum Manufacturing Readiness Level (MRL) of 8 at the conclusion of EMD in support of Milestone C. The manufacturer will be assessed for manufacturing readiness in accordance with the MRA Handbook by an independent Government sponsored team. Completion of questionnaires and site visits to each of the primary manufacturing facilities by Government Representatives will be required in order for manufacturing readiness and risks to be assessed.

(CDRL A0009) MRA Questionnaire Response

C4.1.4.4.1 Manufacturing Maturation Plan. In conjunction with the program/project office, the Contractor shall prepare a Manufacturing Maturation Plan (MMP) that covers all manufacturing risk areas identified during the MRA. The MMP will be delivered in conjunction with the results of the assessment of manufacturing readiness. The following outline for a MMP includes the most essential items in planning for the maturity of a specific element of assessment found to be below its target MRL:

a. Title
b. Statement of the problem
c. Describe the element of assessment and its maturity status
d. Describe how this element of assessment would be used in the system
e. Show areas where manufacturing readiness falls short of target MRL including key factors and driving issues
f. Assess type and significance of risk to cost, schedule or performance
g. Solution options

h. Benefits of using the preferred approach
i. Fall-back options and the consequences of each option
j. Maturation plan with schedule and funding breakout
k. Key activities for the preferred approach
l. Preparations for using an alternative approach
m. The latest time that an alternative approach can be chosen
n. Status of funding to execute the manufacturing plan
o. Specific actions to be taken (what will be done and by whom)
p. Prototypes or test articles to be built
q. Tests to be run
r. Describe how the test environment relates to the manufacturing environment
s. Threshold performance to be met
t. MRL to be achieved and when it will be achieved

(CDRL A0010) DI-MISC-80508B, Technical Report-Study/Services (Manufacturing Readiness Assessment/Manufacturing Maturation Plan (MMP)

C.4.1.4.5. Reliability, Availability, and Maintainability Program. The Contractor shall maintain a comprehensive Reliability, Availability, and Maintainability (RAM) program for equipment and components under contract to ensure the RAM standards set forth in the performance specification are being met. The design shall be monitored throughout the entire period of performance to identify and assess any changes, which would impact reliability, availability or maintainability. The Contractor shall develop reliability analysis and predictions, as required, to ensure compliance with the performance specification. The program shall encompass all aspects of reliability with respect to design selection and integration of components, assemblies, subassemblies, subsystems, the associated predictions, and the results of testing throughout the EMD phase of the program. If it is determined that an item is expendable, an analysis shall be performed at the next higher indenture level. The Contractor shall maintain and make available to the Government all reliability and maintainability data on any vendor or subcontractor supplied item and shall inform the Government of any part or component, which will degrade system RAM requirements. The RAM program shall minimally include the following tasks:

C.4.1.4.5.1. Procedures and Controls. The Contractor shall maintain procedures and controls, which ensure products, obtained from suppliers, vendors and subcontractors meet RAM requirements. The Contractor shall also establish, implement, and maintain documented procedures, which detect and/or preclude the use of substandard or counterfeit parts in the production process, and impose similar requirements on subcontractors and component vendors.

C.4.1.4.5.2. Failure Reporting, Analysis, and Corrective Action System. The Contractor shall develop a closed loop failure reporting system, procedures for analysis of failures to determine the root cause, and documentation for recording corrective actions taken. The Failure Reporting, Analysis, and Corrective Action System (FRACAS) shall include uniform failure reporting, failure analysis reports and corrective actions IAW with the CDRL. All failures shall be subject to these requirements throughout testing under the contract. The Contractor shall administer a single FRACAS database to encompass in-house (testing) failure reporting, which shall be transferred to the Government upon conclusion of the period of performance. All failures shall

be reported to the Government for review IAW with the CDRL. System operating time (Elapsed Time, where applicable) shall be identified for each failure occurrence and included in the FRACAS data structure. The Contractor shall assess the failure data for the identification of trends (five (5) or more failures of the same root cause) and identify those trends in the failure summary and analysis report. Each FRACAS report shall, at a minimum, identify the root cause, and detail the remedial action taken including parts replaced. The Government reserves the right to conduct a Failure Review Board throughout the contracted period of performance. The Contractor is encouraged to use MIL-HDBK-2155 as guidance.

(CDRL A0011), Failure Reporting, Analysis, and Corrective Action System database
(CDRL A0012) DI-SESS-81315B, Failure Analysis and Corrective Action Report (FACAR)

C.4.1.4.6. Quality Management System. The Contractor's quality management system shall ensure product conformation to specification and configuration management requirements. The Contractor shall have implemented, documented, and have previously demonstrated the ability to maintain the quality management system to be used on the contract. The Contractor shall make available all quality management documentation for the Government to review upon request, especially during the MRAs. The Contractor's plan for the quality management system shall address the following elements:

a. Management Responsibility. Define, document, and implement a quality policy.
b. Quality System. Establish, document, and maintain a quality system, which includes a quality manual, system procedures, and quality planning.
c. Contract Review. Establish and maintain documented procedures for contract review.
d. Design Control. Establish and maintain documented procedures to control and verify product conformance to specified requirements.
e. Document and Data Control. Establish and maintain documented procedures to control all documents and data (including hard copy and electronic media) including such documents as standards and drawings.
f. Purchasing. Establish and maintain documented procedures to ensure that purchased product, associated documents and data conform to requirements. Sub-contractors are to be evaluated and selected on their ability to meet subcontract requirements and type and extent of control exercised by the supplier over subcontractors is to be defined.
g. Control of Government Furnished Equipment and/or Information. Establish and maintain documented procedures for the control of verification, storage and maintenance of GFE/GFI provided for contract related activities.
h. Product Identification and Traceability. Where appropriate, establish and maintain documented procedures for identifying products throughout all stages of production, delivery, use in support of the contract and disposal.
i. Inspection and Testing. Establish and maintain documented procedures for inspection and testing activities, in order to verify that the specified requirements for all products are met.
j. Inspection and Test Results. Ensure that the inspection and test status of the product are identified and maintained throughout the production, and use of the product. Ensure that only products that pass the required inspections and tests are dispatched or used throughout the period of performance.

k. Control of Non-Conforming Product. Establish and maintain documented procedures to ensure that all products that do not conform to specified requirements are prevented from unintended use or installation.
l. Corrective and Preventive Action. Establish and maintain documented procedures for implementing corrective action in the handling of Government complaints, product non-conformities, and the application of controls to ensure corrective action is taken and that it is effective. Preventive action procedures will detect, analyze, and eliminate potential causes of non-conformities.
m. Handling, Storage, Packaging, Preservation and Delivery. Establish and maintain documented procedures to prevent damage or deterioration of products.
n. Control of Quality Records. Establish and maintain documented procedures for identification, collection, indexing, access, filing, storage, maintenance and disposition of quality records. Quality records shall be maintained to demonstrate conformance to specified requirements and the effective operation of the quality system.
o. Internal Quality Audits. Establish and maintain documented procedures for planning and implementing internal quality audits to verify whether quality activities and related results comply with planned arrangements and to determine the effectiveness of the quality system.
p. Training. Establish and maintain documented procedures for identifying training needs and provide for the training of all personnel performing activities affecting quality of products or supplies produced under this contract. Appropriate records of training shall be maintained.

(CDRL A0013) DI-QCIC-81722, Quality Program Plan (QPP)

C.4.1.4.7. Open Systems Design. The Contractor shall consider using an open systems approach as the ADU design strategy to: (1) choose commercially supported specifications and standards for selected system interfaces (external, internal, functional and physical), products, practices, and tools; and (2) build open system architectures as the primary foundation in developing the proposed system and its elements. Open systems is a system design philosophy that uses widely-accepted, industry-approved interface standards that will allow technological upgrades in system components to be easily inserted in the future. To the extent that open systems design is used, the Contractor shall identify the means for ensuring conformance to open systems standards and profiles throughout the development process and provide evidence that the process being used to manage the open systems approach supports open system benefits such as portability, interoperability, technology insertion, vendor independence, reusability, scalability, and commercial product based maintainability. To the extent open systems design is used, the Contractor shall address how use of open systems design impacts corrosion prevention and control requirements on hardware components and if such causes the system to not meet the specified service life, maintenance ratio, safety or other requirements how this will be corrected.

C.4.1.4.8. Producibility. The Contractor shall apply and implement effective producibility principles throughout the EMD phase to ensure that the JBADS production units can be manufactured using the anticipated production facilities, equipment, materials, manpower, and processes. The producibility planning effort shall also maximize the ease of production control, quality control, tooling, and inspection. The Contractor shall report on the progress of this effort during the CDR and SVR/PRR and make any data created available to the Government upon request.

C.4.1.5. Environment, Safety, and Occupational Health.

C.4.1.5.1 System Safety. The Contractor shall identify and evaluate environmental, safety, and health hazards, define risk levels, and establish a program that manages the probability and severity of all hazards associated with development, use, and disposal of the system in accordance with MIL-STD-882. Risks will be evaluated by the Government in accordance with MIL-STD-882 and accepted as appropriate prior to exposing people, equipment, or the environment to known system related ESOH risks. The Contractor shall identify all explosive safety risks as such in the system safety documentation.

C.4.1.5.1.1. Safety Assessment. The Contractor shall perform and document a Safety Assessment to identify all safety features of the system design and to identify all hazards that may be present in the JBADS including specific procedural controls and precautions that should be followed.

C.4.1.5.1.2. Safety Assessment Report. The Contractor shall provide a Safety Assessment Report (SAR) that documents the Safety Assessment and clearly identifies risks of the JBADS. The SAR shall include a signed statement that all identified hazards have been eliminated or their associated risks controlled to acceptable levels and that the JBADS is ready to test, field and operate.

(CDRL A0014) DI-SAFT-80102B, Safety Assessment Report (SAR)

C.4.1.5.1.3. Safety Data Sheets (SDS). The Contractor shall make all SDS for the JBADS available for Government review.

C.4.1.5.2. Environmental Considerations. The Contractor shall provide information on the potential for adverse environmental impacts from the manufacturing, operation, maintenance, and disposal of the JBADS. This information will be used to assist the Government in making a preliminary National Environmental Policy Act (NEPA) decision and in the preparation of formal NEPA documents to support test events. Such environmental impacts include air, soil, wetlands, water, flora, fauna, endangered species, emissions and toxic waste resulting from system maintenance, operation, and disposal.

(CDRL A0015) DI-MISC-80508B, Technical Report, Study/Services

C.4.1.6. Configuration Management.

C.4.1.6.1. Configuration Management Process. The Contractor shall maintain a Configuration Management (CM) process for the control of all documentation, media, materials, deliverables, components, elements, items, parts and external system interfaces representing or comprising the JBADS. The principles contained in EIA-649, National Consensus Standard for Configuration Management, and MIL-HDBK-61A, Configuration Management Guidance, should be used for guidance. The Contractor shall designate a CM representative to serve as a primary point of contact to the Government for all CM matters. The Contractor's representative shall be responsible for any subcontractor's CM efforts. The contractor shall notify the Government of

any changes at the contractor's facility, which affect the execution of the Contractor's CM Plan. The Government will review and approve the Contractor's CM plan. The CM Plan shall be updated as per the CDRL to reflect changes in system engineering, logistic supportability or acquisition strategy concepts.

(CDRL A0016) DI-CMAN-80858B, Contractor's Configuration Management Plan

C.4.1.6.1.1. Configuration Identification (CI). In coordination with the Government's lead Systems Engineer, the Contractor shall develop methods to uniquely identify Configuration Items (CIs) and associated documentation, such as specifications, drawings, manuals, plans, procedures, instructions, software media, and other configuration- related documents.

C.4.1.6.1.2. Configuration Status Accounting. The Contractor shall establish and maintain a Configuration Status Accounting (CSA) database, which represents the configuration of the JBADS delivered under contract. All baselines, changes and planned systems upgrades shall be documented in the Contractor's CSA database. The Contractor's CSA database shall permit acceptance of commercial product information; however, if requirements to report data outside of the Contractor's CSA database or format exist, the information may be delivered as a supplement to prevent disruption to their existing system. The Contractor's CSA database shall reconcile any differences between the supplier information and Contractor practices to provide the Government with clear accountability of product information. Additionally, the CSA database shall provide a reliable source of configuration information to support JBADS activities, including program management, systems engineering, logistics support, and modification/maintenance actions. The Contractor's CSA database shall be capable of providing CSA data in a digital format.

(CDRL A0017) DI-SESS-81253C, Configuration Status Accounting Information

C.4.1.6.2. Baseline Management. The Contractor shall be responsible for maintaining the currency and accuracy of the established baseline to ensure form, fit, and function of the JBADS delivered under contract. The Contractor shall establish definitive processes, which identify how the baseline will be monitored/managed/maintained. These processes shall be defined in the contractor's CM plan and made available for Government review.

C.4.1.6.2.1. Product Baseline. The product baseline is the approved technical documentation that describes the configuration of CI during the production, fielding/deployment and operational support phases of its life cycle. The product baseline shall prescribe; (1) all necessary physical form, fit, and functional characteristics of a CI; (2) the selected functional characteristics designated for production acceptance testing and; (3) the production acceptance test requirements. The Contractor shall establish the initial product baseline at the CDR. The Contractor shall establish the final product baseline by the successful completion and Government acceptance of the PCA. No changes shall be made to this baseline without following the Engineering Change Proposal (ECP) process.

C.4.1.6.2.2. Allocated Baseline. The allocated baseline is the approved performance oriented documentation, for a CI to be developed, which shall describe the functional and interface

characteristics that are allocated from those of the higher level CI and the verification required to demonstrate achievement of those specified characteristics which shall include; (1) essential CI functional characteristics; (2) external and internal interface requirements for each CI; (3) physical characteristics necessary to ensure compatibility with associated systems and CI's; (4) constraints on the design of a CI, including GFE employed, component standardization, ILS requirements and Computer Resources Life Cycle Management Plan requirements.
The allocated baseline shall be established after successful completion of the overall system CDR with all associated documentation. No changes shall be made to this baseline without prior government approval.

C.4.1.6.2.3. Functional Baseline. The JBADS Performance Specification, which is developed and maintained by the Government, establishes the functional baseline.

C.4.1.6.3. Configuration Control. The Contractor shall implement configuration control methods and procedures, which maintain the integrity and traceability of an established baseline. Changes to established baselines shall only be made after Government approval of ECPs and Request for Deviations (RFDs) via the Configuration Control Board (CCB) process. Sufficient supporting data to evaluate the proposed change, such as drawings, supplemental drawings, sketches, specifications, or manufacturer's data sheets, shall be submitted with ECP's and RFD's. Changes shall be identified to the affected assembly serial number, or if not part of an assembly, to the affected equipment serial number. The Contractor's configuration control process shall be available for Government review. The Contractor shall submit all configuration control documentation in a digital format, which must be approved by the Government. Configuration control will begin after the initial product baseline is established, at the conclusion of CDR and after any applicable corrective action plans have been implemented.

C.4.1.6.3.1. Engineering Release System. The Contractor shall maintain an engineering release system and shall use the system to issue configuration documentation to functional activities (e.g. manufacturing, logistics, quality control, engineering, and test and evaluation) and to authorize the use of configuration documentation associated with an approved configuration. The contractor shall maintain current and historical engineering release information for all configuration documentation for the JBADS. The Contractor shall submit an Engineering Release Record (ERR) to release new or revised configuration documentation to the Government for approval. The Contractor shall ensure all Government approved ERR information and documentation is reflected in the Configuration Status Accounting (CSA) database.

(CDRL A0018) DI-CMAN-80463C, Engineering Release Record (ERR)

C.4.1.6.3.2. Engineering Change Proposals. ECPs shall be submitted by the Contractor, and shall be limited to those, which are necessary or offer significant benefit to the Government. MIL-HDBK-61A provides guidance concerning the classification of ECPs. Class I ECPs shall be submitted for approval by a Government CCB when changes are required to: (a) Correct deficiencies; (b) Add or modify interface or interoperability requirements; (c) Make a significant and measurable effectiveness change in the operational capabilities or logistics supportability of the system; (d) Affect substantial life cycle costs/savings; and (e) Prevent slippage in an approved production schedule. Class II ECPs shall be submitted by the Contractor to the

Acquisition Contracting Officer (ACO) for approval for those engineering changes, which impact none of the factors listed above. As a minimum, Class I ECP's shall contain the following information: (a) Date prepared; (b) Originator; (c) ECP Classification; (d) ECP Number; (e) Reason/need for change; (f) System designation (nomenclature, model, P/N); (g) Name of part (or lowest assembly) affected to include part numbers; (h) Baselines affected (to include drawings, specifications, CAGE, revision level, etc.); (i) Title of change; (j) Description of change; (k) Effect on interfaces (Interchangeability and Interoperability); (l) Total costs/savings w/ breakout; (m) Retrofit information; (n) Ozone Depleting Substances; (o) Impact on any engineering disciplines (such as quality, environmental, safety, health, reliability, maintainability, etc.); (p) Justification for change; (q) Priority of change; (r) Impacts to any logistics support elements (such as software, manuals, spares, tools, etc.) being utilized by Government personnel in support of the product; and (s) Alternatives evaluated or considered.

(CDRL A0019) DI-CMAN-80639C, Engineering Change Proposal (ECP)

C.4.1.6.3.3. Notices of Revision. The Contractor shall generate and submit Notices of Revision (NOR) concurrently with ECPs when technical documentation controlled by another Contractor or Government agency requires changes following approval of an ECP. As a minimum, the NOR shall contain the following information: (a) Date; (b) CAGE code; (c) NOR number; (d) Document number; (e) Title of document; (f) Revision letter (current and new), related ECP number; (g) Configuration item (or system) to which ECP applies; and (h) Description of revision.

(CDRL A0020) DI-CMAN-80642C, Notice of Revision (NOR)

C.4.1.6.3.4. Requests for Deviation. The Contractor shall process RFD from current approved configuration documentation. Authorized deviations are a temporary departure from the requirements and do not constitute a change in an approved baseline. Submission of recurring deviations is discouraged and shall be minimized. Where it is determined that a change should be permanent, the Contractor shall process an ECP. MIL-HDBK-61A provides guidance concerning the classification of RFDs. As a minimum, the RFD shall contain the following information: (a) Date prepared; (b) Originator; (c) RFD Classification (critical, major or minor); (d) Designation for deviation (model/type, CAGE code, system designation, and deviation number); (e) Class of deviation; (f) Part Number affected; (g) Cost/Price data; (h) Effectivity; (i) Description of deviation; (j) Need for deviation; (k) Effect on delivery schedule; (l) Recommended corrective action; and (m) Alternatives evaluated.

(CDRL A0021) DI-CMAN-80640C, Request for Deviation (RFD)

C.4.1.6.3.5. Notification of Changes to Commercial Equipment/Software. The Contractor shall submit notification to the Government when changes occur to commercial equipment or software, which is being procured or fabricated by the Contractor off-the-shelf, and the Government does not control the developer's design. The Contractor shall submit a change notice to the Government implementing any Class II ECPs and the Government will concur in the classification designation of the ECP.

(CDRL A0022) DI-MISC-80508B, Technical Report - Study/Services

C.4.1.7 Engineering Drawings.

C.4.1.7.1. Commercial Drawings/Models. The Contractor shall provide commercial drawings/models to the Government for commercial item(s) approved for use in the design and not covered by Government or nationally recognized industry association specifications and standards. The Contractor shall provide evidence that the part complies with the requirements of the applicable part documentation. Existing test data (such as supplier originated objective evidence of compliance or Government/Industry Data Exchange Program (GIDEP) reports) shall be used to the maximum extent practicable.

(CDRL A0023) DI-SESS-81003D, Commercial Drawings/Models and Associated Lists

C.4.1.8. Item Unique Identification. The Contractor shall implement specific Item Unique Identification (IUID) marking, as defined in MIL-STD-130 and DFARS clauses 252.211-7003, 252.211-7007 for items delivered under the contract, as applicable. For all commercial contracts, the contractor shall comply with DFARS clauses, 252.245-7001, 252.245-7002, 252.245-7003, 252.245-7004 and 252.246-7006. The IUID marking shall be incorporated into existing data plates when possible. Bar Coding and the two-dimensional (2D) IUID data matrix shall be readable by optical scanning devices and be accompanied by the corresponding human readable markings when practical. All 2D data matrix shall be permanently affixed and have the ability to withstand and perform within the same environmental conditions as the JBADS. All spare parts, secondary repairable and consumable that exceed $5,000, when purchased separately, shall also be marked and registered with the IUID prior to delivery to the Government.

C.4.1.9. Diminishing Manufacturing Sources and Material Shortages. The Contractor shall identify the parts planned to be used as well as those used in the JBADS at all levels. The data may be obtained progressively during any program life cycle phase using sources such as the preferred parts list, Bill of Materials (BOM), vendor surveys, inspections, etc. The information documented at the part level shall be updated as the design progresses or changes and be sufficient to enable forecasting and management of any associated Diminishing Manufacturing Sources and Material Shortages (DMSMS) issues. The contractor shall maintain a list of at least 1 alternate sources of supply for each bill of material component.

(CDRL A0024) DI-SESS-81656, Source Data for Forecasting DMSMS

C.4.1.10. Test & Evaluation (T&E).

C.4.1.10.1. Test and Evaluation. The Contractor shall establish and maintain an effective test and evaluation program in support of the development and production activities under the contract.

C.4.1.10.2 Test and Evaluation Integrated Product Team. The Contractor shall participate as required in the Test and Evaluation (T&E) Integrated Product Team (IPT).

(CDRL A0008) DI-ADMN-81505 Report, Record of Meeting/Minutes (T&E IPT)

C.4.1.10.3. T&E Activities. The contractor shall coordinate with the Government to assist in test planning and T&E activities in support of the EMD phase, to include:

- Shall plan and execute qualification testing that assesses system or subsystem functional capabilities to meet PSPEC requirements.
- Shall demonstrate to the Government what level the system meets the PSPEC.
- Shall obtain Government approval of test plans produced for the conduct of contractor testing.
- Shall request Customer Test support from Government test organizations (ATEC, ECBC, McKinley Climatic Lab) for environmental chambers/facilities and test support equipment required to conduct contractor test in support of Product Verification in accordance with the PSPEC.
- Shall conduct and report analyses of test failures to assist in isolating causes of failure.
- Shall support AFOTEC and PMO as required in the execution of the OA.
- Shall perform CLS support functions during the execution of IOT&E in accordance with the AFOTEC Operational Test Plan and the JBADS Test and Evaluation Master Plan (TEMP).
- Shall attend and participate in test planning meetings.

C.4.1.10.4 Contractor Support to Government Testing. The Contractor shall support Government test efforts throughout the EMD Phase by providing on-site personnel for training and equipment inspection. Training shall include instruction on the correct procedures to set up and operate the system, and perform any post operational maintenance (e.g., packaging, handling and storage). The Contractor shall support each Government test by providing maintenance, logistics, test readiness review (TRR) participation and technical support for all testing. Test support requirements will be tailored to the test being conducted. The Contractor shall analyze test data at the request of the Government, conduct failure analysis (where applicable), and maintain a tracking system for reporting all consumable/expendable supplies throughout all test efforts.

C.4.1.10.4.1 The Contractor shall provide on-site/off-site support, as listed for each of the following events below:

Event 1: Product Verification Test – The Contractor shall conduct planning and execution of Contractor test for conduct of performance specifications verification, which includes: Mil-STD-810, HSI, MIL-STD-461, Safety, and Transportability certification.
Scheduled: Oct 2017 – March 2018.

Event 2: Operational Assessment (OA) – The Contractor shall provide access to test site for AFOTEC execution of OA.
Scheduled: Oct 2017 –March 2018.

Event 3: Initial Operational Test and Evaluation (IOT&E) – The Contractor shall perform CLS functions during execution of IOT&E.
Scheduled: August – November 2018.

C.4.1.10.5. Product Verification Test. The Contractor shall develop and implement Product Verification Test (PVT) procedures to demonstrate the adequacy and suitability of the Contractor's production processes and procedures for achieving the requirements in the PSPECs. The conduct of PVT will ensure design integrity of the JBADS over the specified operational and environmental range and that the system can be fabricated to the proposed production design drawings and specifications.

(CDRL A0025) DI-NDTI-80603A, Test Procedure (PVT)

C.4.1.10.6 Reliability Testing and Reports. The Contractor shall conduct reliability testing of the JBADS system under contract using MIL-HDBK-781 as a guide. Summary reports and a final report shall be provided to the Government. Summary reports shall also be submitted when significant problems are encountered, which prevent reliability data from being attained.

(CDRL A0026) DI-TMSS-81586A, Reliability Test Reports

C.4.1.10.7. Operational Assessment (OA). To be defined.

C.4.1.10.8. IOT&E. To be defined.

C.4.1.11 Warranty Performance System. The Contractor shall establish and maintain a warranty performance system that identifies and documents all items to be warranted under this contract. Each item warranted shall be indexed and identified by serial number, model or part number, and date of acceptance by the Government. Warranties shall become effective based upon a negotiated agreement between the Government and the Contractor. All pertinent data required for the Government to pursue warranty provisions, remedy, and relief for each item shall be maintained by the Contractor for the duration of the warranty period. All warranty claims and transactions shall be documented and made available for Government review during scheduled meetings and/or reviews. Unless negotiated by the Contractor, and agreed to by the Government, the warranty shall be for a period of 24 months commencing for a period negotiated by both the Government and the Contractor. The Contractor shall ensure that subcontractor and vendor warranties provide the same coverage and are passed through to the end item.

(CDRL A0027) DI-SESS-81639, Warranty Performance Report

C.4.1.12. Long Lead Time Items List. The Contractor shall provide a Long Lead Time Items List (LLTIL) that shall contain those items which may cause production or procurement cycles which would preclude timely and adequate delivery, if not ordered in advance of normal provisioning.

C.4.1.13. Logistics.

C.4.1.13.1. Logistics. The Contractor shall establish and maintain an effective logistics program throughout the development, production, and operations and support phase activities under the contract.

C.4.1.13.2. Logistics Activities. The contractor shall plan, implement, and coordinate as needed with the Government to provide logistics products and logistics support activities during the EMD phase, to include

- Support of systems engineering reviews and activities as applicable.
- Support of test and evaluation events and activities as applicable.
- Planning to facilitate yearly system health and availability inspection, including inventory.
- Planning to facilitate conduct of biennial readiness exercises to demonstrate readiness to operate the system.
- Planning to facilitate maintaining JBADS storage containers while in storage to include painting, accomplishing anti-corrosion measures, and cleaning.
- Support of a Logistics Demonstration (LogDemo).
- Other activities TBD.

C.4.1.13.3. Calibration. Calibration shall be accomplished by comparison to external standards traceable to the National Institute of Standards and Technology (NIST). Calibration shall be provided by a laboratory complying with the requirements of ISO 17025 or equivalent standard. A calibration label, certificate/report if applicable, and documentation stating traceability to the National Institute of Standards Technology (NIST) must accompany each unit for which calibration services are provided in accordance with DID DI-QCIC-80798B.

C.4.1.13.4. Spare Parts Kits. Conduct logistics analysis to enable development of spaarts kits. Each spare parts kit shall include the spare parts required to support the JBADS for two additional decontamination cycles.

C.4.1.13.5. Technical Publications. The Contractor shall provide operator and maintenance manual(s) for the JBADS. The government will review the contractor TMs for accuracy and acceptability, however, the contractor can use his/her own format.

(CDRL A0028) DI-TMSS-80527C, Commercial Off-the-Shelf (COTS) Manual and Associated Supplemental Data

C.4.1.13.6. Support Equipment. The Contractor shall provide a listing of support equipment, which is defined as tools, test equipment, automatic test equipment, and Built-in test/built-in test equipment (BIT/BITE).

C.4.1.13.7. Host Base Support. The contractor shall provide a listing of the type and quantity of fuel, electrical power and water required to operate the JBADS for one decontamination cycle.

C.4.1.13.8. Packaging, Handling, Storage and Transportation. All JBADS components shall be stored and transported within 20 or 40 foot ISO containers or in system unique configurations that shall be ISO container certified. Use of 20 foot ISO containers is operationally preferred. The JBADS shall be transportable by military airlift and military sealift in the storage/transport configuration. The JBADS shall be transportable by commercial ground transport over paved roads in the storage/transport configuration without any special U.S. Department of

Transportation (USDOT) or State permits. The Contractor shall be responsible for Preservation and Packaging (P&P) of the deliverables under the terms of this PWS. All items going into the military distribution system shall require military packaging, as defined in MIL-STD-2073-1E. Items not going into military stock shall be packaged in accordance with ASTM D 3951 and shall be received at the final destination undamaged and in useable and operational condition.

C.4.1.13.8.1. Packaging Design. Packaging shall include preservation, unit packing, packing, unitization and marking. The Contractor shall determine the methods for preservation, unit packing, packing and unitization and marking procedures. The Contractor shall use MIL-STD-147E with Change 1 to consolidate containers when applicable, and shall include bar coding and Military Shipping Labels (MSL).

C.4.1.13.8.2. Packaging and Preservation of Hazardous Materials. The Contractor shall ensure hazardous materials (HAZMAT) goes through Packaging and Preservation in accordance with the requirements of Federal Regulation 49 CFR and the FED-STD-313.

C.4.1.13.8.3. Packaging Requirements. The Contractor shall prepare the required packaging documentation, in the Government format in accordance with MIL-STD-2073-1E with Change 1. The packaging shall protect the JBADS, as identified in the Provisioning Data, against direct exposure to extremes of climate, operational, transportation, and storage environments, without protection other than that provided by the packaging. The Contractor shall design packaging for, as a minimum: (a) multiple handling during transportation and in transit storage from point of origin to final user; (b) the transportability requirements of the system; (c) shock, vibration and static loading during shipment; (d) environmental exposure during shipment or during in transit operations where port and warehouse facilities are limited or nonexistent; (e) storage environmental requirements of the system; and (f) outdoor storage in all climatic conditions for a minimum of one with Change 1 year.

C.4.1.13.8.4. Commercial Packaging. The Contractor shall ensure items that are not entering the military distribution system are packaged in accordance with commercial practices as specified in ASTM D 3951 and marked in accordance with MIL-STD-129, including bar coding and MSL. Interplant shipments do not require military packaging, including shipments from a vendor to a subcontractor or a prime Contractor; between Contractors and subcontractors; or from a vendor or Contractor to a military arsenal, plant or other activity for immediate use or further processing. All items must arrive at their final destination in undamaged and operable condition.

C.4.1.13.9. Logistics Demonstration. The Contractor shall support a Logistics Demonstration (LD), which will be conducted to identify any needed improvements to the materiel design for improved supportability and reduced life-cycle cost. The LD will identify and mitigate high-risk logistic areas for the JBADS to demonstrate that all logistics considerations and requirements have been satisfied.

C.4.1.14. JBADS End Items. The Contractor shall furnish a production representative JBADS system IAW the PSPEC (Attachment X).

C.4.1.15. Integrated Program Management Reporting. The Contractor shall report Earned Value Management data as applicable to this contract in accordance with the requirements stated herein and the Contract Performance Report (CPR). All reporting shall correspond to applicable CWBS elements. The contractor shall reconcile the cost/schedule data elements in the Contract Funds Status Report (CFSR) with the CPR when these documents are submitted in the same month. The contractor shall provide a reconciliation of the CFSR with CPR as an addendum to the CPR.

(CDRL A0029) DI-MGMT-81466A, Contract Performance Report (CPR)

C.4.1.15.1. Application to Subcontractors. The Contractor shall flow-down the CPR requirement to subcontractors meeting applicable thresholds and/or assigned critical tasks. Subcontractor performance management information shall be integrated into the Contractor's CPR and other cost reports.

C.4.2. PRODUCTION AND DEPLOYMENT (FULL RATE PRODUCTION).

C.4.2.1. Program and Data Management.

C.4.2.1.1. Program Management. The Contractor shall continue program management as per 4.1.1.1.

(CDRL B0001) DI-MGMT-80227, Contractor’s Progress, Status and Management Report

C.4.2.1.2. Subcontractor Management. The Contractor shall continue subcontractor management as per 4.1.1.2.

C.4.2.1.3. Data Management. The Contractor shall continue data management as per 4.1.1.3.

C.4.2.1.3.1 Schedule Planning. The Contractor shall continue schedule planning as per 4.1.1.3.2.

(CDRL B0002) DI-MGMT-81861, Program Schedule

The Government’s general schedule for the JBADS program is displayed in Attachment X.

C.4.2.1.3.2. Contract Work Breakdown Structure. The contractor shall continue the CWBS as per 4.1.1.3.3.

(CDRL B0003) DI-MGMT-81334D, Contract Work Breakdown Structure (CWBS)

C.4.2.1.3.3. Assignment of Responsibility and Authority. See 4.1.1.3.4.

C.4.2.2. Government Furnished Property.

C.4.2.2.1. Government Furnished Equipment. See 4.1.2.1.

(CDRL B0004) DI-MGMT-80389B, Receipt of Government Materiel Report

C.4.2.2.2. Government Furnished Information. See 4.1.2.2.

(CDRL B0005) DI-MGMT-80596, Government Furnished Information Deficiency Report

C.4.2.3. Meetings, Formal Reviews, Conferences, and Audits.

C.4.2.3.1. Contractor Responsibilities. See 4.1.3.1.

(CDRL B0006) DI-ADMN-81373, Presentation Material

C.4.2.3.2. In-Process Review. See 4.1.3.3.

C.4.2.4. Systems Engineering. See 4.1.4.

C.4.2.4.1. Manufacturing Readiness Assessment. The Contractor shall demonstrate the ability to attain an MRL of nine (9) prior to the PCA. At the MRA, the manufacturer will be assessed for manufacturing readiness in accordance with the MRA Handbook by an independent Government sponsored team. Completion of questionnaires and site visits to each of the primary manufacturing facilities by Government Representatives will be required in order for manufacturing readiness and risks to be assessed.

(CDRL B0007) MRA Questionnaire Response

C.4.2.4.2. Reliability, Availability, and Maintainability Program. See 4.1.4.5.

(CDRL B0008), Failure Reporting, Analysis, and Corrective Action System database
(CDRL B0009) DI-SESS-81315B, Failure Analysis and Corrective Action Report

C.4.2.4.3. Quality Management System. See 4.1.4.6.

C.4.2.5. Environment, Safety, and Occupational Health.

C.4.2.5.1. System Safety. See 4.1.5.1.

C.4.2.6. Configuration Management Process. See 4.1.6.

(CDRL B0010) DI-CMAN-80858B, Contractor's Configuration Management Plan

C.4.2.6.1. Configuration Identification (CI). See 4.1.6.1.1.

C.4.2.6.2. Configuration Status Accounting. See 4.1.6.1.2.

(CDRL B0011) DI-CMAN-81253A, Configuration Status Accounting Information

C.4.2.6.3. Configuration Management Meetings/Audits.

C.4.2.6.3.1. Physical Configuration Audit. A PCA shall be performed to verify the JBADS and its CIs are accurate, complete, compatible, and that the CI/SCI has achieved the performance and functional characteristics defined in the configuration baseline. The Government and the Contractor shall conduct the PCA jointly, at a time and place mutually agreed to, with the Government chairing the audit. The PCA shall verify that drawings and training materials reflect the "as-built" configuration of the system; accurate form, fit or function information is provided on control drawings for NDI/COTS items and confirm that drawings accurately represent the "as-built" production configuration. Whenever possible, the PCA shall be conducted incrementally, concurrent with system fabrication and assembly of the first production system. The Contractor shall develop a configuration audit plan and provide the system to be audited, facilities, personnel, documentation (including drawings; SolidWorks format preferred) and other support as may be required. The Contractor shall participate and assist the Government in the development of the PCA, using the guidelines contained in Section 8 of MIL-HDBK-61A, Configuration Management Guidance. The Contractor shall document the results of the PCA after each audit and shall correct all audit discrepancies documented in the configuration audit summary reports. In the event the Government finds evidence the drawings and/or documents do not adequately represent the equipment, production shall cease until all discrepancies are corrected and the Government approves the configuration audit summary report. The product baseline will be established upon completion of the PCA and resolution of audit discrepancies.

(CDRL B0012) DI-CMAN-81022C, Configuration Audit Summary Report (Physical)
(CDRL B0013) DI-SESS-81646, Configuration Audit Plan (Physical)

C.4.2.6.4. Baseline Management. See 4.1.6.2.

C.4.2.6.5. Configuration Control. See 4.1.6.3.

C.4.2.6.5.1. Engineering Release System. See 4.1.6.3.1.

(CDRL B0014) DI-CMAN-80463C, Engineering Release Record (ERR)

C.4.2.6.5.2. Engineering Change Proposals. See 4.1.6.3.2.

(CDRL B0015) DI-CMAN-80639C, Engineering Change Proposal (ECP)

C.4.2.6.5.3. Notices of Revision. See 4.1.6.3.3.

(CDRL B0016) DI-CMAN-80642C, Notice of Revision (NOR)

C.4.2.6.5.4. Requests for Deviation. See 4.1.6.3.4.

(CDRL B0017) DI-CMAN-80640C, Request for Deviation (RFD)

C.4.2.6.5.5. Notification of Changes to Commercial Equipment/Software. See 4.1.6.3.5.

(CDRL B00018) DI-MISC-80508B, Technical Report - Study/Services

C.4.2.7. Item Unique Identification. See 4.1.8.

C.4.2.8. Logistics. See C.4.1.13

C.4.2.8.1. Contractor Logistics Support.

C.4.2.8.1.1. Contractor Logistics Support (CLS). The Contractor shall provide CLS to enable the integration of complete logistics support functions for the JBADS to include fielding, deployment, and operations and support.

C.4.2.8.1.2. Annual System Health Inspection. The Contractor shall conduct yearly system health and availability inspections, including inventory.

C.4.2.8.1.3. Biennial Readiness Exercise. The Contractor shall conduct biennial readiness exercises to demonstrate readiness to operate the system.

C.4.2.8.1.4. Operational Availability. The Contractor shall conduct CLS activities to facilitate maintaining an 0.80 Operational Availability (Ao) and a 0.80 Materiel Availability (Am).

C.4.2.8.1.5. Storage. The Contractor shall maintain JBADS storage containers while in storage to include painting, accomplishing anti-corrosion measures, and cleaning.

C.4.2.8.2. Packaging. See 4.1.13.9.

C.4.2.9. JBADS End Items. The Contractor shall furnish JBADS systems IAW the PSPECs in Attachment X.

C.4.2.10. Product Quality Deficiency Reports. The Contractor shall investigate and provide root cause failure analysis and corrective action for all Product Quality Deficiency Reports (PQDRs) against products or supplies produced under this contract, at no additional cost to the Government. The Contractor shall provide replacement parts for all components determined to be deficient attributable to workmanship/product nonconformance. Production/field corrective actions shall be accomplished at no additional cost to the Government.

C.4.2.10.1. PQDR Reporting. A final written response shall be submitted using Standard Form 368, PQDR, (See Attachment X) If a final response is not ready for submittal, the Contractor shall submit a request for a time extension specifying the time required to complete the final response with an interim response detailing the status of the investigation. The response shall report on the actions taken, root cause, corrective action, and the Contractor's position with respect to repair or replacement parts.

(CDRL B0019) DI-QCIC-81187, Quality Assessment Report

C.4.3. OPERATIONS AND SUSTAINMENT - CLS

C.4.3.1. Sustainment CLS. The contractor shall provide life-cycle sustainment support. The contractor shall ensure JBADS sustainability and maintainability stays within JBADS PSPEC requirements.

C.4.3.2. Storage and Life Cycle Maintenance. The contractor shall propose a maintenance program and schedule to sustain the JBADS at the required levels of performance.

C.4.3.2.1. System Health and Availability Inspection. The contractor maintenance program shall include a yearly system health and availability inspection, including inventory.

C.4.3.3. Operational Preparedness - Full System Exercise. The contractor shall support a biennial Full System Exercise. The exercise will require the contractor to fully set up the system, operate the system as if it were a real mission, and redeploy the system into storage. The exercise will be conducted at the storage location. The system storage location will be at Holloman Air Force Base, New Mexico.

C.4.3.4. Life Cycle Support Process Improvement. The contractor shall maintain alternate sources of supply and advise the Government of materials where less than two sources are identified to minimize impacts to the program due to Diminishing Manufacturing Sources and Material Shortages. The contractor may also suggest changes to maintenance procedures or schedules that would improve the efficiency of the system sustainment.

C.4.4. OPERATIONAL MISSION SUPPORT

C.4.4.1 Operational Mission Support. The contractor shall provide support to allow the deployment, operation and redeployment of the JBADS on an operational mission around the world. Two operational mission scenarios are provided for proposal purposes (Attachment XX). An actual deployment may differ. The contractor shall be responsible for:

C.4.4.1.1. Deployment. The contractor shall ensure a JBADS system is packaged and ready for transportation via air, sea or land within 45 days of receiving notification to deploy.

C.4.4.1.2. Deployment Personnel. The contractor shall provide personnel ready to deploy to set up the JBADS (or employ local approved contractors) within 45 days of receiving notification to deploy.

C.4.4.1.3. Host Base Support. The host base will provide fuel, water, power, and adjunct personnel (i.e. security, bio-environmental engineers, aircraft maintenance). The deployment location will be in a non-active combat zone and will have a preexisting flat concrete surface on which JBADS will be set up.

C.4.4.1.4. Load Planning and Shipping. The contractor shall not be responsible for load planning or the cost of shipping the JBADS.

C.4.4.2. Operation. The contractor shall operate the JBADS to complete aircraft decontamination mission(s), as required.

C.4.4.2.1. System Operators. The contractor shall provide personnel to operate the JBADS as required.

C.4.4.2.2. System Repair. The contractor shall repair and/or maintain the JBADS during and operational mission, as required.

C.4.4.3. Redeployment. The contractor shall disassemble the JBADS and repackage it to be ready for shipment within 30 days after notification to do so.

C.4.4.3.1. System Disassembly & Repackaging. The contractor shall provide personnel to disassemble and repack the JBADS.

C.5. CONTRACT INCENTIVES

C.5.1. Design Incentives. The contractors shall consider "design for support" as well as design of a cost-effective support concept during execution of activities under this contract.

C.5.1.1. Common Components. The Contractor shall consider prioritizing the use of commonly available components, packaged in the containers with available access panels and/or easily removable components to facilitate ease of maintainability/supportability

C.5.1.2. Value Engineering. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any net acquisition savings realized from accepted VECP's, in accordance with the incentive sharing rates defined in paragraph (x) of the relevant clause to this contract.

(CDRL XXXX) TBD

C.5.1.3. Other Design Incentives. TBD.

C.5.2. Logistics and Sustainment Cost Reduction Incentives. The Contractor shall develop processes and procedures to reduce CLS costs to the Government during the operations and support phase of the JBADS program.

C.5.2.1. CLS Cost Reduction Plan. The Contractor shall provide the Government a plan summarizing the CLS cost reduction approach, including risks identified, risk mitigation, and contingency plans.

C.5.2.1.1. Performance Based Logistics (PBL). The Contractor shall partner with the Government to optimize customer support, system availability, and to reduce ownership costs. The Contractor shall propose metrics by which performance outcomes (such as readiness, availability, cost, and obsolescence) can be measured.

(CDRL XXXX) DI-ADMN-81373, Contractor Logistics Support (CLS) Cost Reduction Plan

C.5.2.2. Other Logistics and Sustainment Incentives. TBD.

C.5.3. Capability Expansion and Prototyping. The Contractor shall conduct studies, analyses, and prototyping to expand the JBADS concept to accommodate varying platform sizes and types (i.e., ground vehicles and aircraft smaller in size than the C-130) and to enable decontamination of chemical warfare agents. The Contractor shall assess the applicability of common equipment, standards, and processes to address this potential capability expansion.

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

C.5.4. Incentive Reduction Percentage Goals. TBD.

C.6. SECURITY. The DoD Contract Security Classification Specification (DD Form 254) (Attachment X) provides the security classification requirements for this order. The Contractor shall obtain facility and personnel security clearances as required by the Department Industrial Security Program prior to starting work on tasks requiring clearances. Access to classified spaces and material and generation of classified material shall be in accordance with the attached DD Form 254.

C.7. ELECTRONIC SPILLAGES. Electronic spillages (ES) are unacceptable and pose a risk to national security. An electronic spillage is defined as classified data placed on an information system (IS), media or hardcopy document possessing insufficient security controls to protect the data at the required classification level, thus posing a risk to national security (e.g., Secret onto Unclassified, etc). The Contractor's performance as it relates to ES will be evaluated by the Government. ES reflects on the overall security posture of the Government and a lack of attention to detail with regard to the handling of classified information will be reflected in the Contractor's performance rating. In the event that a Contractor is determined to be responsible for an ES, all direct and indirect costs incurred by the Government for ES remediation will be charged to the Contractor. The JPEO-CBD Security Office will continue to be responsible for the corrective action plan in accordance with the security guidance reflected on the DoD Contract Security Classification Specification - DD254. Command Security will identify the Contractor facility and contract number associated with all electronic spillages during the investigation that involve contractor support. Command Security will notify the U.S. Army Contracting Command (USA ACC) with the Contractor facility name and contract number, incident specifics and associated costs for cleanup. The Contracting Officer will be responsible to work with the Contractor Facility to capture the costs incurred during the spillage clean up. The Contractor is also responsible for taking Information Security Awareness training annually, via their Facility Security Officer (FSO), as part of the mandatory training requirements. If a spillage occurs additional training will be required to prevent recurrence.

C.8. OPERATIONAL SECURITY (OPSEC).

C.8.1. AT Awareness Training for Contractor Personnel Traveling Overseas. This standard language text required US based contractor employees and associated sub-contractor employees to make available and to receive government provided area of responsibility (AOR) specific AT

awareness training as directed by AR 525-13. Specific AOR training content is directed by the combatant commander with the unit ATO being the local point of contact.

C.8.1.1. For Contracts that Require OPSEC Training. Per AR 530-1, all contractor and subcontractor employees must complete Level I OPSEC awareness training within 30 calendar days of contract start date, or report date for new employees, and annually thereafter. The contractor will report results to the COR or contracting officer NLT 30 calendar days after contract award, and annually thereafter (as applicable).

C.8.1.2. For Contracts That Require Handling or Access to Classified Information. The Contractor and subcontractor personnel shall comply with FAR 52.204-2, Security Requirements. This clause involves access to information classified “Confidential,” “Secret,” or “Top Secret” and requires contractors to comply with the Security Agreement (DD Form 441) and the most recent version of the National Industrial Security Program Operating Manual (DoD 5220.22-M).