PERFORMANCE WORK STATEMENT

FOR THE

505TH COMMAND AND CONTROL WING (CCW)

FOR

COMMAND AND CONTROL TECHNICAL SUPPORT CONTRACT (C2TSC)

Dated: 07 November 2018

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TABLE OF CONTENTS

1.0 SCOPE 3

1.1 BACKGROUND 3

1.1.1 705 CTS

1.2 PROGRAM EXECUTION 7

1.2.1 Program Management

1.2.2 Operations

1.2.3 Technical Support

1.3 CDRL DELIVERABLES 23

Table 1 – CDRL/Deliverables 23

1.4 KEY PERSONNEL 25

Table 2 – Key Contractor Personnel Categories 25

1.5 GOVERNMENT-FURNISHED PROPERTY 29

1.6 GENERAL REQUIREMENTS 32

ATTACHMENT 1: OPERATIONAL SYSTEMS AND TOOLS 37

ATTACHMENT 2: DMOC MISSION AREAS 38

ATTACHMENT 3: LIST OF PLANNING DOCUMENTS 39

PERFORMANCE WORK STATEMENT

1.0 SCOPE

The contractor shall provide operational, technical, and analytical expertise for the planning and execution of training and test events, conducting Live-Virtual-Costructive (LVC) and Distributed Mission Operations (DMO) activities, providing operational support, providing non-kinetic operations training and tactics development support, and conducting operational testing (OT) of C2ISR systems. This effort includes program management, operations, and technical support tasks. Contracted work will be conducted at the Unclassified, Secret, Top Secret/Sensitive Compartmented Information (TS/SCI), and Special Access Program/Special Access Required (SAP/SAR) levels. CDRLs/deliverables are property of US government, and will include, but not be limited to, operational exercise plans, scenario development, system requirements documents, operational architectures, test plans, reports, and After Action Reports (AARs). This PWS covers the requirements at the 705 CTS at Kirtland AFB, New Mexico, and 705 CTS Operating Location Bravo (OL-B) at Nellis AFB, Nevada; all necessary management services, personnel, materials, components, supplies, maintenance, and documentation required to accomplish the full complement of tasks.

1.1 BACKGROUND

1.1.1 705 CTS Background. The mission of the 705 CTS is to develop and integrate technologies to deliver an LVC combat environment for Air Force, Joint and Coalition warfighter training. This mission requires the 705 CTS to maintain a highly-qualified staff of government and contractor personnel with expertise in warfighter training, test and evaluation, event execution, systems integration and interoperability, and LVC/DMO operations. The 705 CTS promotes the use of DMO capabilities to connect Air Force (AF), Joint, and Coalition simulators and facilities into an Operational Training Infrastructure (OTI) training environment to train to and test modern warfighting Tactics, Techniques and Procedures to prepare for major combat operations.

1.1.1.1 The 705 CTS DMOC is available to the United States Air Force (USAF), DoD, Government agencies, and Coalition partners. It serves as the USAF's center of excellence for DMO integration and interoperability with operational experience in Army, Navy, Marine, and AF Theater Command and Control (C2) operations. The DMOC facility is an 80,000 square feet facility containing a 5,677 square feet raised floor operations area, a Sensitive Compartmented Information Facility (SCIF)/Special Access Program Facility (SAPF) area, a SCIF/SAPF Sidebay for high-side operations, a software development area, a 140-seat auditorium, 40-seat gallery, technical library, four 20-person mission planning/crew briefing rooms, and contractor office space on the second floor.

1.1.1.2 The 705 CTS military and government civilian personnel direct, oversee, and support the operations and maintenance of both the facility and mission. The 705 CTS is

supplemented by contractors, who provide the technical expertise in event planning, execution, data collection, data analysis, and overall system support. DMOC military, government civilians, and contractors are responsible for the sustainment of the DMOC's Battlespace netwroks, systems, and simulators to ensure they represent accurate versions that are concurrent with real-world warfighting systems.

1.1.1.3 The DMOC Battlespace is two enclaves containing systems that consists of various virtual and constructive AF and Joint weapon systems and simulators, a Technical Integration Cell (TIC), and a 40+ position White Force cell within the operations area. The TIC is the focal point for maintaining and monitoring the internal and external event/exercise networks, systems, and recording event data during all events/exercises. The White Force cell consists of environment generators (EG) that produce constructive entities run by man-in-the-loop control forces. The Battlespace is reconfigurable from event to event and is tailored to meet testing or training objectives identified during the event planning process. The Battlespace also includes a separate high-side environment (HSE) within the DMOC SCIF/SAPF Jumper Room to support high-side operations.

1.1.1.4 The DMOC development space (DevSpace) includes classified and unclassified development systems and networks for the design, developmental test, and acceptance testing of hardware/software solutions prior to placement on Battlespace operations floor or networks.

1.1.1.5 Utilizing the DMOC and associated resources, the 705 CTS performs LVC/DMO training, testing, and development with personnel operating live weapon systems and high fidelity virtual and constructive simulations to create a realistic synthetic combat-representative environment. DMOC resources include: simulations of airborne systems; surveillance systems; airborne and ground C2 systems; Integrated Air Defense Systems (IADS); voice communications systems; tactical/synthetic data link systems; data loggers; network analysis and routing tools; intelligence systems; and collaboration tools. Major internal DMOC systems and simulators include, but are not limited to an Air and Space Operations Center (AOC), Air Support Operations Center (ASOC) simulators, Battlespace Command and Control Center (BC3), Control and Reporting Center (CRC), Distributed Common Ground System (DCGS), Remotley Piloted Aircraft (RPA) simulator, Air Defense Artillery systems, Virtual E-3 variants Simulator, Virtual E-8 variants Simulator, and Close Air Support (CAS) simulators. The DMOC also routinely connects to a large number of external LVC/DMO-capable systems and simulators.

1.1.1.6 The DMOC leverages multiple EGs/constructive simulations and digital terrain databases to provide a realistic synthetic environment. The DMOC is capable of simulating more than 150,000 simultaneous air, ground, and surface entities in any single event. The DMOC is also involved in developing standards for modeling Information Operations (IO), Electronic Warfare (EW), and LVC/DMO.

1.1.1.7 The DMOC primarily utilizes the Distributed Interactive Simulation (DIS) protocol to interoperate with a variety of OTI simulation facilities and systems through Point-to-Point (P2P) connections, Wide Area Networks (WANs), and other DMO networks. Additionally, High Level Architecture (HLA) and Test and Training Enabling Architecture (TENA) protocols are used as required.

1.1.1.8 The 705 CTS executes VIRTUAL FLAG (VF), Coalition VF (CVF), Warfighter Focused Events (WFEs), and RDT&E events. In support of VF/CVFs, WFEs and RDT&E events, the contractor is required to attend multiple planning conferences and support preliminary meetings in order to better define event requirements. WFEs and RDT&E events may be conducted during or in conjunction with a VF/CVF or other DMOC events.

1.1.1.8.1 VF/CVF are campaign-level Large Force Exercises (LFEs) directed by the Commander, Air Combat Command (COMACC) Execution Plan (EXPLAN) 88 to provide Operational Plan (OPLAN) familiarization. These exercises support Combatant Commander (COCOM) high-interest training requirements and individual unit training objectives, typically involving 300-500 participants worldwide. Participants include representatives from fighter aircraft, bomber aircraft, air C2 platforms, ground C2 platforms, Intelligence, Surveillance and Reconnaissance (ISR) platforms, AOC, Remotely Piloted Aircraft (RPA), and ground controllers. Each VF typically includes 10-20 local simulator systems and 10-20 external simulator systems connected through 5-10 networks and multiple point-to-point connections as required. The 705 CTS has historically executed three VF and one CVF exercises annually.

1.1.1.8.2 Due to the recurring nature of VF, there may be overlap between exercise efforts. During any given year the contractor may work on portions of up to six VF exercises. VF requires a minimum of 4 to 6 months of planning efforts with a minimum 12 month planning timeline for CVF. The level of effort during the planning period varies based on required EG support, participants, security and cybersecurity requirements, planning conferences, and integration of new sites and systems.

1.1.1.8.3 Typically, VF/CVFs consist of one week of internal integration, three days of external integration, two days of academics/mission planning, one familiarization (FAM) day, and four days of execution. FAM day and execution days include mass briefings, mission planning, execution vulnerability (VUL) period, debriefings, hot washes, and executive summaries. Extended duty days are typically required during VF/CVF execution.

1.1.1.8.4 WFEs are similar to VFs but vary in scope to meet specific AF, DoD, or Coalition training requirements. WFEs typically include two to five participants focused on a single mission thread with associated training objectives. Historically the DMOC has executed/supported eight USAF Weapons School classes, two Army Joint Kill Chain Events (JKCE), and six Navy Fleet Synthetic Training (FST) exercises annually. Additional examples include, but are not limited to, support of

Headquarters Air Force (HAF)-directed events, Combat Air Force (CAF) Distributed Training Center (DTC) support, USAF Warfare Center (USAFWC) High End Advanced Training and Tactics (HEAT2), Red Kite (UK event) support, Emerald Warrior (EW) support, Northern Edge (NE) support, RED FLAG (RF) support, GREEN FLAG (GF) support, and BLUE FLAG (BF) support.

1.1.1.8.5 RDT&E events vary in scope and size and are conducted in support of formal acquisition testing/evaluation and the development or refinement of Tactics, Techniques, and Procedures (TTP). Historically, the DMOC has executed/supported up to three RDT&E events annually.

1.1.1.9 The 705 CTS OL-B supports the Virtual Test and Training Center (VTTC); facilitating two USAF Weapons School events annually.

1.2 PROGRAM EXECUTION

The contractor shall establish, execute, and maintain the following functions in support of the government: program management, operations, and technical support.

1.2.1 PROGRAM MANAGEMENT

The contractor shall develop, execute, and maintain a defined Program Management Plan for all efforts in accordance with (IAW) industry best practices. The Government will conduct surveillance of the performance of services and various operational processes. (A001)

1.2.1.1 The contactor shall manage, control, and administer the effort to ensure successful performance of all tasks**.** The contractor shall provide cost, schedule, and performance tracking and forecasting of program status at the Contractor Line Item (CLIN) level. This shall be provided in a monthly status report. (A002, A003)

1.2.1.1.1 The contractor shall differentiate between appropriation types and fiscal years of funding. (A002)

1.2.1.1.2 The contractor shall ensure appropriate contractor representation at all programmatic meetings.

1.2.1.2 The contractor shall identify, actively manage and prioritize, and mitigate risks and/or issues relevant to the efforts on this contract.

1.2.1.3 The contractor shall conduct quarterly Program Management Reviews (PMRs) with the 705 CTS. The PMR shall summarize efforts during the reporting period to address, at a minimum, the following topics: (A002, A003)

a. Contractor personnel status
b. Overall resource status
c. Contractor activity schedule (6 months out)
d. Contract and CLIN budget status

e. CLIN schedule and progress status
f. Contractor-identified risks/issues and mitigation plans
g. Items requiring Government action

1.2.1.4 The contractor shall hire and retain qualified personnel at contract start sufficient to execute all tasks under this contract. The contractor shall minimize mission impact due to position vacancies or insufficient personnel qualifications. Operational tasks will vary both in length and frequency and therefore some flexible staffing capability may be required.

1.2.1.4.1 The level of effort the DMOC requires to cover all daily operations, exercise events (both O&M and RDT&E), planning, and support, is approximatly 75,000 hours of work covered in a 1920 hour man-year.

1.2.1.5 The contractor shall work with the government to prioritize and de-conflict all activities to minimize the impact to operations, pre-event activities, event execution, or post-event activities.

1.2.1.6 The PM or delegated personnel shall attend internal government meetings to include, but not limited to; weekly staff meetings, scheduling and performance meetings, technical interchanges, design reviews, test readiness reviews, exercise planning meetings, informational meetings, administrative meetings, event readiness reviews, technical and operational event briefs and debriefs, etc.

1.2.1.7 The contractor shall actively provide recommendations to the government for the approval of process and technical improvements to operations and all efforts on this contract. Recommendations shall be provided IAW the 705 CTS Strategic Planning Document (SPD) process.

1.2.1.8 Pursuant to the Program Management Plan, the contractor shall assist in the development and maintenance of current government integrated schedules.

1.2.2 OPERATIONS

1.2.2.1 The contractor is responsible for translating customer requirements into technical Battlespace requirements; identifying requirements for facility upgrades for customer test or training events; and conducting real-time troubleshooting and issue resolutions during tests or exercises.

1.2.2.2 The contractor shall support planning, leading, and directing LVC/DMO exercises and projects.

1.2.2.3 The contractor is responsible for creating development and exercise plans and schedules, coordinating with other distributed simulation sites, providing direct, hands-on event execution management, and managing event support personnel. (A006)

1.2.2.4 The contractor is responsible for maintaining a successful crew of operators for all simulators and systems used for tests and exercises.

1.2.2.5 SCENARIO DEVELOPMENT

1.2.2.5.1 The contractor is responsible for coordinating scenario development process from early discussions through scenario design, generation, testing, and execution.

1.2.2.5.2 The contractor is responsible for defining scenario requirements, writing the scenario design document, encoding player characteristics in the environment generators, configuring virtual simulation initialization files, and verifying proper execution of the scenario during event integration testing and event execution.

1.2.2.5.3 The contractor is responsible for designing and delivering realistic scenarios and providing products such as, but not limited to, Air Tasking Orders (ATO), Concept of Operations (CONOPS), and Rules of Engagement (ROE) to operational crews participating in exercises. (A012)

1.2.2.5.4 The contractor is required to have a detailed understanding of scenario generation systems and the development and testing of scenarios for a wide range of users, for applications such as theater missile defense, joint interoperability issues, degraded mission operations, cyber and space operations, and advanced combat identification systems.

1.2.2.5.5 The contractor is responsible for validating the extensive databases used to generate scenarios.

1.2.2.5.6 The contractor is responsible for developing the master exercise script which details participants and their roles, the schedule of events, and scenario execution. (A006, A011, A012)

1.2.2.6 SCENARIO DESIGN AND IMPLEMENTATION

1.2.2.6.1 The contractor shall provide the in-house expertise to support the government in all aspects of scenario design and construction. The effort shall include , but not limited to, an overall exercise plan that addresses all aspects of warfare to include Order of Battle development, adversary tactics, constructive entity generation and employment, virtual asset integration, overall campaign planning, joint force employment, communications planning, Air Tasking Order (ATO) and Airspace Control Order (ACO) development, maritime planning, Army Air Defense Artillery planning, threat Integrated Air Defense System (IADS) employment, ground force maneuver, theater ballistic missile planning, incorporation of Information Operations and Cyber Warfare, space operations, and Intelligence, Surveillance, and Reconnaissance (ISR) support. Development efforts shall involve use of current tools (i.e. TBMCS) and incorporate current, relevant scenarios. (A006, A012)

1.2.2.6.2 Contractor shall coordinate with the Exercise Director and respond within 12 hours for change requests, to include scenario changes, exercise document changes, etc.

1.2.2.6.3 Contractor shall obtain current theater relevant products to support scenario development and reflect real world problem sets.

1.2.2.6.4 The contractor shall construct, deliver and disseminate all required exercise documentation (i.e. Special Instructions [SPINs] and Air Operations Directive [AOD]) per Exercise Director; Table 1 and Attachment 3. (A006)

1.2.2.6.5 The contractor shall capture previous lessons learned and ensure they are appropriately incorporated into new scenario builds or existing scenario modifications per direction from Exercise Director. (A008)

1.2.2.6.6 The contractor shall provide technical and operational expertise capable of operating the systems listed in Attachment 1.

1.2.2.6.7 The contractor shall provide engineering test scenario support for simulation testing, integration testing, and troubleshooting\resolution of system problems.

1.2.2.6.8 The contractor shall assist the government in developing high-side/SAP/SAR training capability to include associated computer generated forces simulations, and implementing Joint Information Operations (IO) Range capabilities.

1.2.2.6.9 The contractor shall assist in the development of Joint/VF emitter databases in support of increased fidelity for EW and cyber training opportunities.

1.2.2.6.10 The contractor shall explore integrating live range-instrumented entities, such as pod-equipped aircraft and GPS-instrumented surface vehicles, into the virtual contructive environment.

1.2.2.6.11 The contractor shall work with the government or other contractor organizations as necessary, to develop joint database standards such as Common Database (CDB)/terrain models, scenario databases, and emitter databases.

1.2.2.7 EVENT SUPPORT

The contractor shall be responsible for planning, implementing, and providing support for execution of government directed events, to include, but not limited to; support of high-side operations, execution of classified test plans, and troubleshooting issues related to secure Distributed Mission Operations (DMO). Specific support is for pre-event activities, event execution, and post-event activities to include, but not limited to establishing and maintaining network connectivity with geographically distributed sites,

configuring networks, supporting integration testing, and troubleshooting event/exercise support systems.

1.2.2.7.1 DMOC Directive (DD) documents will be provided by the government for each event, as a supplement to the PWS, to provide event-specific information such as schedule, networks, internal systems, external participants and event leads.

1.2.2.7.2 The contractor shall maintain the ability to meet various urgent-to-need events, to include capability to execute WFE-type events within 72 hours upon government direction.

1.2.2.7.3 The contractor shall utilize interface tools and processes to populate exercise/event scenarios with joint computer generated forces simulations.

1.2.2.7.4 The contractor shall monitor changes to customer requirements, support meetings and conferences as required, and oversee all scenario design, project execution, and applicable documentation development. (A005, A006, A012)

1.2.2.7.5 The contractor shall provide personnel who are subject matter experts competent in the mission areas and training events across all four services and multiple major weapon systems (MWS); see list of competencies identified in Attachment 2.

1.2.2.7.6 The contractor shall provide a technical lead for the overall technical effort for each event. This effort may include, but is not limited to: conducting the technical portion of the Exercise Planning Conference (EPC); translating operational requirements into technical requirements; designing the event systems architecture, developing the event test plan, coordinating technical efforts, organizing engineering support for site liaison teams and government systems; coordinating development of individual system test plans; supervising system and integration testing; conducting daily technical briefings and debriefings; maintaining an assessment of the technical status of the event; identifying and prioritizing technical problems; leading issue mitigation efforts; manage exercise/event releveant sotware applications/tools, and documenting and assessing technical lessons learned.(A006, A008)

1.2.2.7.7 The contractor shall identify the specific systems (computer names) needed for the exercise and provide that information to the government.

1.2.2.7.8 The contractor shall provide engineering support on DIS filter and datalink systems during integration and execution.

1.2.2.7.9 The contractor shall support the integration and operation of Battlespace systems (see Attachment 1) as required by the Exercise Director to meet operational requirements for each event.

1.2.2.7.10 The contractor shall provide the following engineering support for the sites/systems within the DMOC:

- Support site/system specific testing
- Verify systems are implemented and functional for the event
- Work with IDE contractor to troubleshoot system problems
- Verify and document resolution of system problems
- Translate site operational requirements into technical requirements
- Coordinate Battlespace architecture changes to support the site technical requirements
- Provide test plans to the 705 CTS for applicable systems

1.2.2.7.11 The contractor shall Manage Tactical Chat rooms by supporting the integration and operation of DIS Voice and VoIP equipment and configure it for use during DMOC events.

1.2.2.7.12 In close coordination with the exercise director, the contractor shall provide an exercise coordinator to conduct day-to-day exercise support, planning and execution.

1.2.2.7.13 The contractor shall provide White Force training and execution support, including, but not limited to:

- Individualized training based on the specific mission sets to be accomplished (ATO breakout, mission overview)
- Basic NGTS user operation, or similar environmental generators, and advanced EG operations/platform TTPs based on mission requirements
- Contested Degraded Operations **(**CDO)
- Tactical chat familiarization
- Wing Operations Center (WOC) training and support
- Tactical communications (brevity) and the use of communications equipment (Quickdraw/II, etc)

1.2.2.7.14 The contractor shall provide a customizable White Force as a control force for all major mission areas, to include but not limited to; Strike, DCA, OCA, SEAD,WAS, XINT, CAS, PR, Airlift/Tanker, WOC

1.2.2.7.15 The Contractor shall serve as White Force, including, but not limited to, Army Staff, Fires Direction Center, additional scenario enhancing agencies or

assets. The contractor shall ensure participants on-site have acess to graphics to support exercise execution, and coordinate with off-site sim operators to ensure systems and scenarios are prepared for events.

1.2.2.7.16 The contractor shall supplement as White Force lead, mission set leads and/or participant when suitable exercise participants are not available. Assignments will be based at the discretion of the Exercise Director.

1.2.2.7.17 The White Force Lead shall be operationally competent with multiple mission set experience (DCA, OCA, XINT, CAS, Strike, SEAD, WAS, XSCP, WOC, PR) responsible for the management and directing of activities for personnel driving constructive entities during the exercise.

- Provide scenario oversight to assist with exercise control
- Coordinate discrepencies/resolutions/real time scenario adjustments with the Exercise Director, Exercise Coordinator, OA Cell, and EG operators.

1.2.2.7.18 Mission Set Leads shall be the assigned mission set scenario SME, participate in mission planning, brief/debrief mission set, operate CGFs, and lead exercise participants in accordance with the Exercise Director's discretion. Mission Set Leads will coordinate with White Force Lead for real-time scenario adjustments or discrepancy resolution.

1.2.2.7.19 Contractor shall provide OPFOR cell (Red Lead, Red SME's, CDO SME's) to manage enemy tactical courses of action (air, land, sea, cyber, space), to include but not limited to; manuvers, CDO, patterns of life, emmissions, communications, defenses.

1.2.2.7.19.1 Red lead shall be responsible to the Exercise Director for briefing OPFOR academics and Operational Assessment Cell coordination

1.2.2.7.19.2 Red Lead shall lead all OPFOR coordination, briefings, debriefings as required throughout all execution and planning meetings

1.2.2.7.19.3 Red SME's shall operate all CGF's, to include; DICE, OPFOR, NGTS, etc

1.2.2.7.19.4 CDO SME's shall scenario plan and execute jamming (Datalinks/Comm/GPS/IFF), Tactical Chat intrusion and other requirements at the discretion of the Exercise Director

1.2.2.7.20 Contractor shall provide a Cyber SME to advise, teach and execute network warfare operations (NW Ops).

1.2.2.7.20.1 Contractor shall train warfighters and capture, record, and develop tactics, techniques, and procedures (TTPs) during Distributed Mission Operations Center (DMOC) exercises and events.

1.2.2.7.20.2 Contractor shall participate in DMOC training events throughout the planning, briefing, execution, and debriefing (PBED) process.

1.2.2.7.20.3 Contractor shall coordinate cyber support with the 624th Operations Center for DMOC Mission Assurance (MA) Operations during exercises and events.

1.2.2.7.20.4 Contractor shall coordinate with AFCYBER to work with the DMOC team as required.

1.2.2.7.20.5 Contractor shall work with DMOC's NOC and other personnel in order to identify, defend and defeat cyber related degraded operations during exercises and events.

1.2.2.7.20.6 Contractor shall conduct the detailed integration of cyber capabilities to include network attack (NetA), network defense (NetD), and network warfare support (NS) across air, space and cyber domains.

1.2.2.7.20.7 Contractor shall provide integrated planning and employment of NW Ops, along with electronic warfare operations (EW Ops), influence operations, as well as new and emerging cyber capabilities for use in Test and Evaluation (T&E) nomination and development.

1.2.2.7.20.8 Contractor shall support exercise scenario development, planning (Concept development, Initial Planning, Mid Planning, Final Planning), execution and Lesson Learned/TTP development for USAFWC and 505 CCW sponsored events as well as ad hoc support to local training exercises and classified theater exercises.

1.2.2.7.20.9 Contractor shall contribute to WEPTACs to ensure current weapons and tactics are integrated into DMOC exercises & events.

1.2.2.7.21 The contractor shall operate the Joint Terminal Control Training and Rehersal System (JTC-TRS), Joint Theater Air Ground System Simulator (JTAGSS), and other Close Air Support (CAS) simulation systems for, Virtual Flags and other training events.

1.2.2.7.22 The contractor shall provide operational expertise in the preparation and execution of all planning conferences. This shall include assistance with any research, documentation, planning, or briefings required by the government.

1.2.2.7.23 The contractor shall support the government in all aspects of exercise coordination to include providing operational/technical information to participants and scheduling events.

1.2.2.7.24 The contractor shall provide operationally and technically competent systems engineers to operate Battlespace weapons systems as required per Attachment 1; design scenarios across multiple constructive simulations; and provide expertise on the real-world operational characteristics of threat and friendly weapon systems, radar sensors, tracking systems, Identification Friend or Foe (IFF), datalinks, infrared sensors, theater air defense weapon systems, fire control systems, Electronic Warfare (EW), air and missile system flight performance, terrain databases, real-world mission planning tools such as Theater Battle Management Core System (TBMCS), Portable Flight Planning System (PFPS), Joint Mission Planning System (JMPS), brief/debrief and other collaboration tools, such as Tactical Chat. (A012)

1.2.2.7.25 The contractor shall provide C4I/datalink operational document development, integration support and exercise support to include exercise C4I/datalink operational concept diagram, exercise OPTASKLINK development, C4I/datalink inputs to SPINS, exercise C4I/datalink force lay down slide and OPTASKLINK derivative information for technical integration and support (i.e. OPTASKLINK Cutsheet) (A012)

1.2.2.7.26 The contractor shall identify personnel to serve as operations/technical liaisons to each site participating in an event. As part of a site liaison team, including a government lead, the contractor shall integrate the sites operational and technical requirements into the event, maintain awareness of the site's status, and resolve issues related to the site. The contractor's responsibilities may include, but may not be limited to:

- Translating the site's operational requirements into technical requirements for the event
- Coordinating architecture changes to support the site's technical requirements
- Developing system and integration test plans
- Establishing data filtering and analysis plans
- Maintaining awareness of the site's technical and system configuration management status
- Resolving interoperability problems related to the site
- On a case-by-case basis, site liaisons may be required to travel to their respective sites.

1.2.2.7.27 The contractor shall support the development of all required documentation in support of event approval for controlled interface and MNIS operations. (A012)

1.2.2.7.28 During events, the contractor shall support operation of controlled interface and MNIS operations, to include implementation of operational rules and verification that the operational and technical rules are effective.

1.2.2.7.29 The contractor shall support the implementation of data links (Situational Awareness Data Link (SADL), Tactical Digital Information Link (TADIL), Multifunction Advanced Data Link (MADL), Link 16, etc.) capability to support virtual and potential live training integration involving joint warfighters.

1.2.2.7.29 The contractor shall support scenario development, integration, test, and operation of two VTTC Weapons School events per year.

1.2.2.8 AFTER ACTION REPORTING

The contractor shall provide actionable lessons learned from event execution and support development of the AAR by the government; Table 1, and after action reports following the completion of compliance testing. (A008)

1.2.2.8.1 The contractor shall support technical conferences as directed, such as the annual Inter-service/Industry Training, Simulation and Education Conference (I/ITSEC)

1.2.2.8.2 The contractor shall develop articles and make presentations on technical/operational M&S capabilities and concepts at professional conferences and symposia as directed by and coordinated through the government for release. (A009)

1.2.2.8.3 The contractor shall deliver trip reports on all meetings that include external (i.e., non-government) attendees. When a government representative attends, the contractor traveler shall coordinate with the government representative to provide trip report information into a single trip report. (A004)

1.2.2.8.4 The contractor shall update and maintain joint System Limitations Integration Capabilities Kneeboard databases (SLICK Books), scenario database repositories, event products and other products as required by the Government.

1.2.3 TECHNICAL SUPPORT

1.2.3.1 REQUIREMENTS DEVELOPMENT AND ANALYSIS

1.2.3.1.1 The contractor shall support requirements definition for requirements for new systems and the evaluation of new systems, integration of existing systems into DMO, and system enhancements.

1.2.3.1.2 The contractor shall support requirements definition for development of OTI capabilities. These capabilities include an integrated and persistent network of OTI simulations and systems to provide a realistic training environment improving warfighter readiness within the Air Force, Joint, and Coalition community.

1.2.3.1.3 The contractor shall support requirements definition for OTI simulations and systems, scenario generation tools, mission planning tools, datalink and operational support systems, data support tools, and collaboration tools.

1.2.3.1.4 The contractor shall support the government in defining test and/or exercise objectives and supportive mission threads to effectively accomplish objectives.

1.2.3.1.5 The contractor is responsible for supporting development and integration of new capabilities by defining technical requirements, writing requirements documents, defining functional architectures, reviewing design specifications, monitoring development, developing acceptance test plans, executing acceptance tests, and writing acceptance test reports. (A006)

1.2.3.1.6 The contractor is responsible for defining distributed simulation networks and C2 communications architectures, defining data collection requirements and methods, developing analysis plans, and implementing analysis databases.

1.2.3.1.7 The contractor shall evaluate and report on issues associated with new CONOPS and TTPs and shall make operational and technical recommendation. (A008)

1.2.3.1.8 The contractor shall perform systems engineering requirements analysis to translate operational requirements into technical requirements documents (i.e., System Subsystem Specifications [SSS]) that support the evaluation and development of new systems, integration of existing systems into DMO, and system enhancement. (A012)

1.2.3.1.9 The contractor shall provide inputs to the government detailing new technical requirements that support projects' operational goals. (A008)

1.2.3.1.10 The contractor shall provide studies and analysis inputs (white/research papers, new and emerging reqts, technhology, etc) as directed by the government. (A006)

1.2.3.1.11 The contractor shall provide script development to automate processes to create efficiencies and user interfaces. (A006)

1.2.3.1.12 The contractor shall work with government designated personnel to coordinate system requirements with external system sponsors.

1.2.3.1.13 The contractor shall attend product user group meetings, work with the government to host user group meetings to include developing agendas, and provide feedback to meeting sponsors.

1.2.3.2 STUDIES &ANALYSIS

1.2.3.2.1 The contractor shall perform S&A as directed by the Government through an SPD**.** Studies may include, but are not limited to, examining the feasibility of adapting new or upgraded simulators, systems, tools and software, potential requirements, or Battlespace/DevSpace enhancements. (A007)

1.2.3.2.2 The contractor shall provide recommendations to improve event execution and correct event issues by refining concepts and analyzing any configuration changes required to the government. The contractor shall provide technical options with cost and schedule estimates for development, and/or design and implementation of these changes. (A007)

1.2.3.2.3 The contractor shall author and/or co-author papers and presentations related to LVC/DMO on topics approved by the government, review papers presented, and contribute responses. All products will be submitted to the government for review and approval for release. Topics may include impacts for associated standards, general LVC/DMO activities, and advice to help guide LVC/DMO development. (A007)

1.2.3.3 ACCEPTANCE TESTING

1.2.3.3.1 The contractor shall provide reliable and accurate test, evaluation and acceptance recommendation for government projects.

1.2.3.3.2 The contractor shall develop system level acceptance plans to formally accept any new or modified system within the battlespace. (A006)

1.2.3.3.3 The contractor shall translate operational requirements into procedures, develop plans, execute events, and document results.

1.2.3.3.4 The contractor shall develop and review scenarios for use in all system acceptance, integration, operational, interoperability, certification, and accreditation compliance conducted by the government.

1.2.3.3.5 The contractor shall provide engineering support for all system acceptance, integration, operational, interoperability, certification, and accreditation compliance conducted by the government. (A006, A008)

1.2.3.3.6 The contractor shall support the government and its customers to define viable test events, develop test plans, ensure the operational relevance of the test focus, prioritize test items, provide operational support for the test events, and document the operational impact of test findings. This task relates to government system development, training, testing, and experimentation events; software evaluation; and system certification and accreditation. (A006, A008)

1.2.3.4 CONTROLLED INTERFACE AND MULTINATIONAL INFORMATION SHARING

1.2.3.4.1 The contractor shall provide engineering expertise and project management for controlled interface and MNIS architectures, systems, and rule set activities.

1.2.3.4.2 The contractor shall research system information, security classification guides, Delegation of Disclosure Letter (DDL) documentation, and other applicable information to determine what information needs to be protected from non US participants.

1.2.3.4.3 The contractor shall support the development of rule sets, maintain the event CONOPS, build test plans, conduct testing, analyze results, document test reports, and provide recommendations on the viability of controlled interface and MNIS solutions. (A006, A008, A012)

1.2.3.4.4 The contractor shall provide expertise in the development and evaluation of controlled interface and MNIS simulation rule sets designed to protect information while maintaining the ability to accomplish test, training, and experimentation goals.

1.2.3.4.5 The contractor shall translate security requirements into technical rules for implementation on controlled interfaces. (A006, A008)

1.2.3.4.6 The contractor shall document technical rule sets with, including but not limited to, written reports and diagrams that provide details regarding the rules to be implemented. (A008)

1.2.3.4.7 The contractor shall support controlled interface and MNIS technical operations to include operation of network guards and filters.

1.2.3.4.8 The contractor shall support the government and contractor organizations as necessary, to conduct real-time and pre/post-event analysis of technical rule implementation. This includes, but not limited to, support of formal security testing, and evaluation of guard solutions.

1.2.3.5 CONFIGURATION MANAGEMENT

1.2.3.5.1 The contractor shall work with the government to maintain Configuration Management (CM) of all DMOC systems.

1.2.3.5.2 The contractor shall coordinate system configuration changes with the Infrastructure, Development, and Engineering (IDE) contractor.

1.2.3.5.3 The contractor shall support CM of all threat and friendly weapon system performance databases.

1.2.3.5.4 The contractor shall work with the government and IDE contractor to develop and implement CM and quality assurance activities.

1.2.3.5.5 The contractor shall coordinate all configuration and software changes with the IDE contractor.

1.2.3.5.6 The contractor shall provide technical guidance and recommendations to assist the government in prioritizing changes to the battlespace architecture.

1.2.3.5.7 The contractor shall submit Engineering Change Requests (ECRs) for architecture and documentation changes, validated system problems, and proposed system modifications.

1.2.3.5.8 The contractor shall manage all DIS Filter configuration files, controlled interface network guard rule sets, and all protocol and data link conversion configuration files.

1.2.3.5.9 The contractor shall organize and conduct periodic tests to verify system reliability and interoperability, test system changes proposed for incorporation into the battlespace baseline and document current system configurations. (A006, A008)

1.2.3.5.10 The contractor shall manage scenarios controlled, developed or installed under this PWS.

1.2.3.5.11 The contractor shall provide technical advice regarding management of all threat and friendly weapon system performance databases.

1.2.3.5.12 The contractor shall support model development and validation.

1.2.3.6 VISUAL MODEL DEVELOPMENT

The contractor shall develop, update, and maintain entity models in the Visual Database Catalog (VDC), and support the testing of models for events/exercises including, but not limited to, Joint Kill Chain Event (JKCE), Weapons School Syllabus Training, VIRTUAL FLAG, and collaborative COALITION VIRTUAL FLAG/RED FLAG exercises. Additional support includes scenario development and other work related to the VDC on systems such as the Air Force Synthetic Environment for Reconnaissance (AFSERS) and Intelligence Surveillance Reconnaissance Battle Damage Assessment (ISR/BDA) when not performing the tasks outlined below. (A006, A008, A013)

1.2.3.6.1 Specifications Generation

The contractor shall generate specifications for the completion of each model to include, but not limited to, sample imagery, dimensions, spectrum information, damage state descriptions, and any other pertinent information required. (A013)

1.2.3.6.2 Design Review
The contractor shall provide a list of model specifications and conduct a design review to present models to the government for approval as needed to support events. (A013)

1.2.3.6.3 Development
The contractor shall build entity models that are observable in current MetaVR, HPY, and Openflight systems. These models shall be constructed using software and hardware provided as GFE. Modeler shall be competent in Autodesk, ESRI Arc/GIS, MetaVR, and Gimp photo-editor. The typical development actions and definitions for each model type are provided in the table below. (A013)

Action	Definition
Hull Number Changes	Changing or affixing a specific number to the hull of a preexisting ship model
Surface Changes	Changing the appearance of an existing model (i.e., changing camouflage pattern of a vehicle or adding camouflage netting)
Add Articulating Parts	Updating a previously rendered model to include moving parts (i.e., adding retractable landing gear to aircraft or rotating turret to tank)
Model Upgrade	Increasing the realism of an existing model
New Stationary Model	Building new models of buildings, roads, runways, and other terrain features with damage states, electro-optical (EO) and infrared (IR) spectrum views, and articulating parts
New Moving Model	Building new models of ships, aircraft, tanks, trucks, etc. with damage states, both EO and IR spectrums, and articulating parts

1.2.3.6.4 Model Review
The contractor shall conduct a model review with the government wherein the government shall verify the accuracy of the visual models, particularly the rendering of damage states. (A013)

1.2.3.6.5 Rework/Re-review
The contractor shall record and repair any noted discrepancies and present the corrected versions at the next Model Review. (A013)

1.2.3.6.6 Delivery
The contractor shall deliver models in current MetaVR, HPY, and Openflight systems with all required data to modify the model via DVD or CD to the DMOC Library. The contractor shall populate the VDC with all created/updated models with each incremental delivery. All models must be properly delivered in order to be considered complete. (A013)

1.2.3.7 CRC SIMULATION PACKAGE (CSP) HELPDESK

1.2.3.7.1 The contractor shall support CSP helpdesk and testing of a CSP version benchmarked across the USAF and ANG ACS which uses the distributed interactive simulation (DIS) protocol; including the identification of the CAF DMO standards which required additional development for the CSP suite.

1.2.3.7.2 The contractor shall maintain and support the CSP Help desk to improve CRC participation in CAF DMO or LVC-OT exercises and operations at DMOC which directly enhances ACS training.

1.2.3.7.3 The contractor shall conduct all work in accordance with (IAW) task order language and contract requirements. Any necessary design recommendations must be approved by government.

1.2.3.7.3.1 Provide CSP/CRC system expertise to the project for requirements/standards definition.

1.2.3.7.3.2 Evaluate/review the CAF DMO Standards describing the mission package which may impact CSP.

1.2.3.7.3.3 Establish test plans and conduct acceptance testing on new software packages.

1.2.3.7.3.4 The contractor shall perform Program Management (PM) and administrative functions for this task order.

1.2.3.7.3.5 Plan trips to support CSP testing at CONUS or remote ACS locations at the discretion of the government.

1.2.3.8 OPERATIONAL ASSESSMENT

1.2.3.8.1 The contractor shall assist the government and its customers in assessing the quality of training, testing, and experimentation events. This operational assessment shall include assisting in the coordination of event and unit objectives; developing and implementing performance measurements; collecting and analyzing

performance data; and reporting the results of these assessments into formal government AARs. (A008)

1.2.3.8.2 The contractor shall assess the value and impact from the addition of new (or modifications/upgrades to existing) C2ISR, weapon systems, and OTI capabilities into the battlespace.

1.2.3.8.3 The contractor shall report on the value and/or impact in cost, time, schedule, changes to other existing systems, system response time, system complexity and maintainability, system operations and procedures, facility support and loading, and staffing.

1.2.3.8.4 The contractor shall participate in the management and control of a system assessment process.

1.2.3.8.5 The contractor shall provide and maintain a system analysis effort for conducting and documenting studies to verify the battlespace meets government user requirements. (A007)

1.2.3.8.6 The contractor shall verify that the battlespace provides the required interfaces, properly executes approved scenarios in real-time, and provides the appropriate data for analysis and reporting.

1.2.3.8.7 The contractor shall analyze the impact of selected models on operational tests, operational test objectives, and test results. (A007, A008, A013)

1.2.3.8.8 The contractor shall analyze the test data available from each system for trends, identify and report on data required to support analysis and test objectives. (A006)

1.2.3.9 INTEROPERABILITY

1.2.3.9.1 The contractor shall provide systems engineering services to support the government in maintaining the battlespace as an integrated, reliable, responsive, and fully functional facility for training, testing, and experimentation.

1.2.3.9.2 The contractor shall support resolution of interoperability problems identified during acceptance testing, event integration/execution, standards compliance efforts, or as otherwise directed by the government.

1.2.3.10 STANDARDS SUPPORT

1.2.3.10.1 The contractor shall provide recommendations to the development of distributed simulation standards and protocols as required by the government.

1.2.3.10.2 The contractor shall participate in the Simulation Interoperability Standards Organization (SISO), CAF DMO Standards Development Working Group (to include 5th Gen Standards), CAF DMO Test Plan & Implementation

Working Group (TPIWG), and Joint Architectures and Technical Standards (JATS) working groups, as well as similar organizations as directed by the government.

1.2.3.10.3 The contractor shall provide operational and technical support for activities involving CAF DMO Mission Package (MP) certification.

1.2.3.10.4 The contractor shall write and present technical papers addressing simulation standards issues. These papers will be coordinated through the government for approval and releasability prior to distribution or presentation. (A008)

1.2.3.10.5 The contractor shall review and comment on proposed standards that may impact operations.

1.2.3.10.6 In coordination with the IDE contractor, the contractor shall translate CAF DMO standards criteria into system requirements.

1.2.3.10.7 The contractor shall determine realistic CAF DMO MP test methods, developing test plans, conducting tests, and documenting results. (A006)

1.2.3.11 JOINT NATIONAL TRAINING CAPABILITY - PROGRAM CERTIFICATION

1.2.3.11.1 The contractor shall support the government in obtaining JNTC accreditation for VF training activities. This subtask requires an ongoing analysis of Joint task related training activities, evaluation of related activities currently supported through VF training, and identification of existing shortfalls and mitigation strategies.

1.3 CDRL DELIVERABLES

Table 1 – CDRL DELIVERABLES

	ITEM	FREQUENCY
A001	Program Management Plan	Draft due 30 calendar days after contract award. Final due 14 calendar days after receipt of Government comments.
A002	Monthly/Final Cost Report	Monthly report due 15 calendar days after close of first full accounting month, monthly thereafter. Final report due at contract completion
A003	Monthly/Final Status Report	Monthly report due 15 calendar days after close of the calendar month when contract is awarded and monthly thereafter. Final report due at contract completion
A004	Conference/Trip Report	Report due 5 working days after the meeting
A005	Conference Agenda	Agenda due 7 working days prior to the scheduled meeting
A006	Exercise/Test Plan	Due 14 calendar days prior to commencement of test
A007	Studies& Analysis	
A008	Technical Report /Exercise Report/After Action Report	Report due 14 calendar days after event/project completion.
A009	Externally Released Material	Due 45 calendar days prior to external presentation and final 5 working days after 705 CTS review.

A010	Transition Plan (Phase In/Phase Out)	Phase in plan due with submission of proposal. Phase-out plan due 90 calendar days prior to the end of the contract performance period.
A011	Organization Contact List	Internal Organization List (current/upon any changes) Names, titles, function, Phone External Organization Contact List (Phone, Unit, email, platform type, event, KSA) Updated for every exercise
A012	Exercise Documentation	This deliverable includes Scenario Development end products listed below. As specified by the Exercise Director : List of candidate documents (and typical lead time prior to event) depending on scope of the event and government direction: Area Air Defense Plan (AADP) Joint Integrated Prioritized Target List (JIPTL) Airspace Control Order (ACO) Air Battle Plan (ABP) Air Tasking Order (ATO) Intelligence, Surveillance, and Reconnaissance (ISR) Collection Deck Equipment List Engineering Test Scenario (ETS) Orders of Battle (OBs) (i.e., air, ground, naval, and adversary) Parametric Database Smart Packs Threat to Air Operations Communications Plan OPTASKLINK Special Instructions (SPINS) (Standing) SPINS (Weekly) SPINS (Daily) Airspace Control Plan (ACP) Air Operations Directive (AOD) Reconnaissance, Surveillance, and Target Acquisition (RSTA) Target Nomination List (TNL) No Strike List (NSL) Restricted Strike List (RTL) Joint Master Scenario Event List (JMSEL) System Limitations Integration Capabilities Kneeboard databases (SLICK Books) System Subsystem Specifications (SSS)

		Computer Generated Force (CGF)/(Environment Generator (EG) scenarios/databases Operations Order (OPORD) Fragmentary Order (FRAGO) Air Support Requests (1972s) Chat (IRC) Plan After Action Report (AAR) Concept of Operations (CONOPS) Concept of Fires (COF) DIS Packet Exercise/Site/Application/Identification List List stresses "candidate" documents, as not all of these may be required for a particular event. Requirement will determine what is needed or not needed.
A013	Visual Model Development	
A014	Quality Assurance Plan	
A015	Technical Assistance Agreement	An export control license covering sharing of information with Australia, Canada, United Kingdom, and New Zealand

1.4 KEY PERSONNEL

There are five mandatory key personnel positions that the contractor shall use in performing this contract. Each person in a key personnel position shall meet the qualifications for that position, as described in Table 2, and shall perform the contract responsibilities applicable to that position. Each key personnel position shall be filled by only one person; the contractor may not divide the qualifications or responsibilities of a key position among two or more people. Each key person shall be an employee of the prime contractor or one of the prime contractor's joint venture partners or subcontractors.

TABLE 2 –KEY CONTRACTOR PERSONNEL CATEGORIES

Labor Category	Description
Program Manager	Master of Arts or Science (MA/MS) with 15 years of experience, or Bachelor of Arts or Science (BA/BS) with 20 years experience. Experience must be in operations management or in operational discipline and must include 5 years of specific experience in C2 systems, Air weapons systems, modeling and simulation/DMO or program management. -AND- Top Secret security clearance with SCI and SAP/SAR eligibility

Chief of Engineering	MS (Engineering, Computer Science, or related discipline) with at least 15 years relevant experience or BS in the same fields with at least 20 years relevant experience. Experience must include 5 years of specific experience in modeling and simulation/DMO. -AND- Top Secret security clearance with SCI and SAP/SAR eligibility
Chief of Operations	Master of Arts or Science (MA/MS) with 15 years of experience, or Bachelor of Arts or Science (BA/BS with 20 years experience. Experience must be in operations management or in operational discipline and must include 5 years of specific experience in C2 systems , Air weapons systems, modeling and simulation/DMO -AND- Top Secret security clearance with SCI and SAP/SAR eligibility
Exercise Coordinators	BS with 5 yr experience in a relevant area AND- Top Secret security clearance with SCI and SAP/SAR eligibility
Subject Matter Experts	Competent in the mission areas executed in DMOC training events across all four services and multiple major weapon systems (MWS) as listed in Attachment 2 (required mission areas) -AND- at least a Secret security clearance with SAP/SAR eligibility

*All engineering and technical degrees must be awarded by an Accreditation Board for Engineering and Technology (ABET) accredited institution.

1.4.1

The five positions described below have been identified as critical/key areas that require extra consideration during transition/phase-in activities. The management of these areas covers critical mission requirements essential to the success of activities. The contractor's transition plan shall ensure these critical/key positions are filled with qualified personnel on day one (1) of the transition/phase-in period and throughout the life of the contract. Individuals identified in the immediate subparagraphs will not assume this position until approved by the government.

1.4.1.1 PROGRAM MANAGER

The contractor shall establish an on-site Program Manager (PM) located at the DMOC, Kirtland AFB, NM, as the lead for the contractor work force. The PM shall have full authority to act for the contractor on all matters relating to daily operations. The individual in this key position shall have the authority and technical/operational ability to be the single Point of Contact (POC) for all operational, technical, and administrative interfaces relating to the definition and accomplishment of the work described in the PWS and will respond to requirements set by the contract. The qualification requirements for this key position are those described for the *Program Manager* position in Table 2. The contractor shall also establish an on-site Acting Program Manager at the DMOC. The PM shall inform the government, through the Contracting Officer's Representative (COR), who the Acting Program Manager is during periods of the PM's absence. The Acting PM shall have full

authority to act on behalf of the PM. During the absence of the PM, the Acting PM is responsible for all responsibilities of the PM. The PM (or Acting PM, as applicable) shall be available immediately during normal duty hours to meet for discussion on-site at the DMOC and shall be available via phone during non-normal duty hours. When required outside normal duty hours, the PM (or acting PM, as applicable) shall be on-site at the DMOC within 3 hours of being notified by the Government. The PM and alternate(s), and subordinate PM shall have full authority to act for the contractor on all contract matters relating to daily operation of this contract.

1.4.1.2 CHIEF OF ENGINEERING

This key position is responsible for supporting development and integration of new M&S capabilities by defining technical requirements, writing requirement documents, defining functional architectures, reviewing design specifications, writing acceptance test plans, executing acceptance tests, and writing acceptance test reports. Support development of controlled interface and MNIS/CDIS rule sets and defining CDS to ensure security compliance and deconflicting security issues where coalition, joint, or other controlled interface information is being used. The qualification requirements for this key position are those described for the *Chief of Engineering* position in Table 2.

1.4.1.3 CHIEF OF OPERATIONS

This key position is responsible for the definition of operational training requirements, operational and analytical expertise for the planning and execution of training, tests, and experimentation events; support requirements definition for virtual and constructive simulations, scenario generation tools, mission planning tools, data link and operational support systems, data support tools, and collaboration tools; provide in-house expertise and support for scenario design and construction; provide support for exercise design and development for constructive simulations; and coordinate support for operations during exercise integration and execution. The qualification requirements for this key position are those described for the *Chief of Operations* position in Table 2.

1.4.1.4 EXERCISE COORDINATORS

1.4.1.4.1 The Exercise Coordinators shall assist the Exercise Director, and Technical Director in the development and execution of training exercises while considering the application of engineering methods and techniques to technical problems associated with developing, integrating, and delivering an OTI combat representative environment to train Air Force, joint and coalition warfighters.

1.4.1.4.2 The Exercise Coordinators shall develop events based on the supported Commander's requirements (as provided by government leadership), participating units' desired learning objectives, and assessed adversary threats and tactics.

1.4.1.4.3 The Exercise Coordinators shall coordinate exercise requirements with external agencies to include participating units, the supported Commander's representatives, 505th Command and Control Wing (CCW) organizations, as well as other agencies. This shall include coordinating with the supported Commander's

representatives during exercise planning and execution to ensure exercise execution meets the supported Commander's requirements.

1.4.1.4.4 The Exercise Coordinators shall provide inputs and coordinate on all DMOC Directives (DD) for assigned exercises; identifying the required support to meet the supported Commander's requirements.

1.4.1.4.5 The Exercise Coordinators shall support the government to optimize exercise objectives for all participants and to maximize development in line with the Chairman of the Joint Chiefs of Staff's High Interest Training Items, Combatant Commander's High Interest Training Requirements, Universal Joint Training List elements, Multi-service Tactics, Techniques, and Procedures, and Air-Sea Battle Mission Essential Task List elements.

1.4.1.4.6 The Exercise Coordinators shall support the governments OA Lead in identifying any Combatant Command (COCOM) or Flag level exercises lessons learned that units should consider during planning and execution. The lessons learned may be incorporated into the exercise. (A008)

1.4.1.4.7 The Exercise Coordinators shall support all event planning conferences.(A004)

1.4.1.4.8 The Exercise Coordinators shall support the government in all aspects of exercise coordination to include providing operational information to participants, scheduling events, and coordinate expertise to support White Force manning requirements.

1.4.1.4.9 The Exercise Coordinators shall manage the development and delivery of a Master Scenario Event List, Air Tasking Order, Airspace Control Order, and all other required documentation as specified by the Exercise Director. (A012)

1.4.1.4.10 The Exercise Coordinators shall monitor changes to customer requirements, conduct meetings and conferences as required, and oversee all scenario design, project execution, and applicable documentation development. (A008)

1.4.1.4.11 The Exercise Coordinators shall conduct regular meetings and conferences involving assigned personnel, contract staff, and other government agencies to resolve problems and discuss implementation procedures.

1.4.1.4.12 Prior to exercise execution, the Exercise Coordinators shall brief the Commander and DO to attain final scenario approval. If the government changes the exercise director assignment, the Exercise Coordinators shall coordinate with, make ready, and hand over duties as required for the Exercise Director to lead the exercise execution. In the event this occurs, the Exercise Coordinators shall assist the Exercise Director in all aspects of planning, integration, and execution of his/her duties within the scope of this task order.

1.4.1.4.13 The Exercise Coordinators shall assist the government and its customers in assessing the quality of training, testing, and experimentation events.

1.4.1.4.14 During exercise execution, the Exercise Coordinators shall provide functional oversight from pre-mission briefs to post-mission debriefs and collect any constructive feedback to improve training realism and fidelity. This will require the Exercise Coordinators to work a flexible work schedule to provide adequate coverage throughout exercise timelines.

1.4.1.4.15 During exercise execution, the Exercise Coordinators shall provide expertise, oversight and source required C2TSC contractors for all White Force operations to include constructive blue air, land, maritime, space and cyberspace assets, opposing forces, and exercise control personnel to include environment generator operators.

1.4.1.4.16 The Exercise Coordinators shall monitor exercise participants' activity, capture, assess, and consolidate data to provide comprehensive lessons learned for the various participant training objectives. (A008)

1.4.1.4.17 The Exercise Coordinators shall assist the DO, Exercise Director, Technical Director, and OA Lead in compiling lessons learned and other appropriate data and writing of after action reports following each exercise as required.

1.4.1.4.18 The Exercise Coordinators shall assist the DO, Exercise Director, Technical Director, and OA Lead in planning, coordinating, and debriefing exercise participants and O-6 level executive representatives following exercises as required.

1.4.1.4.19 The Exercise Coordinators shall support Spiral events. Spiral events are designed to provide advanced training in specific mission areas at a security level that enables participants to train at full combat capability and focus on critical COCOM objectives and maximize unit Ready Aircrew Program (RAP) requirements.

1.4.1.4.20 The qualification requirements for this key position are those described for the *Exercise Coordinator* position in Table 2

1.4.1.5 OPERATIONAL AND TECHNICAL SUPPORT PERSONNEL-SUBJECT MATTER EXPERTS (SME)

1.4.1.5.1.1 The contractor shall provide personnel who are Subject Matter Experts competent in the mission areas executed in DMOC training events across all four services and multiple major weapon systems (MWS). A list of required and desired mission areas is identified in Attachment 2.

1.4.1.5.1.2 The contractor shall demonstrate that it has available at contract initiation and throughout the life of the contract, a cadre of personnel possessing the necessary experience, knowledge, and abilities to perform the wide range of duties

identified in the PWS. The proposal must demonstrate how the contractor will be able to operate efficiently and effectively, particularly during times of high operations tempo, without a significant learning curve. The contractor is encouraged to continually pursue efficiencies in the performance of the duties and requirements prescribed in the PWS. SMEs with operational mission area experience in the Required areas of Attachment 2 and at least a basic familiarity with DMO technology are required. These SMEs are key personnel.

1.5 GOVERNMENT-FURNISHED PROPERTY AND SERVICES

The government shall provide the contractor with the appropriate resources for task completion:

1.5.1 FACILITIES

1.5.1.2 The government shall furnish NIPRnet/SIPRnet computers and support, telephone services, and office space.

1.5.1.3 The Government will make available facility office space for performance of the work identified in this PWS. Government facilities have been inspected for compliance with Air Force Occupational Safety and Health (AFOSH) standards. No hazards have been identified for which workarounds have been established. Should a hazard be identified, the Government corrects AFOSH hazards according to Government-developed and approved plans of abatement, taking into account safety and health priorities. A higher priority for correction will not be assigned to the facilities provided hereunder merely because of this contracting initiative. The fact that no such conditions have been identified does not warrant or guarantee that no possible hazard exists, or that workaround procedures will not be necessary, or that the facilities as furnished will be adequate to meet the responsibilities of the contractor. Compliance with Occupational Safety and Health Administration (OSHA) safety standards and other applicable laws and regulations for the protection of employees is exclusively the obligation of the contractor. The Government will assume no liability or responsibility for the contractor's compliance esponsibility to make corrections according to approved plans of abatement subject to base wide priorities. Submit requests for alterations to the facilities to the COR. No alterations shall be made without specific written permission from the local Civil Engineering squadron. When an alteration is necessary for OSHA compliance, such permission shall not be unreasonably withheld. These facilities shall be used for performance of this contract only. Heavy-lift equipment and common-use military vehicles suitable for moving warehouse/storage equipment will be available to personnel with Government licenses (as required).

1.5.2 GOVERNMENT-FURNISHED SERVICES

1.5.2.1 Services are those provided by contractor or by a Government entity. This includes such areas as utilities, postal, telephone, custodial services; fire protection, emergency medical service, security forces, computer services, and rodent control services. NOTE: The contractor shall maintain personal workspaces as required by the Government IAW OSHA safety standards.

1.5.2.2 Official Government or contractor mail which is generated because of performance of this contract will be handled via the Base Information Transfer Center at Government expense. Official mail is delivered and sent out from the local office. NOTE: Non-Government mail to or from the contractor shall not be handled as official mail. Post Office Boxes may be available at the base Postal Facility for non-Government mail at the contractor's expense.

1.5.2.3 Government supplied equipment shall be used solely for official business.

1.5.2.4 In the event of an emergency, dial 3-9111 from any base phone or 505-853-9111 from a non-base phone. First responders from the base fire department will provide initial care. Ambulance transport responds from the local area. One of the units will respond to the emergency call, and if necessary, transport a contractor employee to one of the local hospitals. The contractor employee may be required to reimburse the respective agency for these services, as appropriate.

1.5.2.5 The Government will provide general security services.

1.5.2.6 Government-furnished janitorial services will be provided IAW the base services contract. The contractor is expected to remove their own trash and to keep their work areas clean and orderly.

1.5.2.7 The Government will provide contractor employees access to NIPRnet/SIPRnet computers and e-mail accounts. This service will be strictly for conducting official business. Individuals shall pass all required information protection training. Contractor personnel using unclassified automated information systems that have access to sensitive information shall possess, at a minimum, a National Agency Check or Entrance National Agency Check IAW DoD 5200.2-R, Personnel Security Program or screening IAW AFI 31-501, Personnel Security Program Management. The contractor shall complete other software training as required and or directed by the Government.

1.5.2.8 The Government will provide the contractor a minimum amount of administrative supplies necessary to accomplish the requirements identified in this PWS. Administrative supplies are limited to storage media, printer/copier paper, and toner. Supplies such as pens, notebooks, staplers, etc. shall be furnished by the contractor for its employees.

1.5.3 GOVERNMENT PROVIDED TRAINING

1.5.3.1 Contractor personnel shall already be proficient in the skills required to satisfy the intent of this PWS.

1.5.3.2 Training in support of unique requirements will be provided by the Air Force for the initial cadre of contractor employees working at the time of an upgrade or receipt of new equipment, computer software and specialized Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance (C4ISR) systems/application software. The contractor shall train its subsequent employees as required.

1.5.3.3 The contractor shall conduct functional and operational training on the use of battlespace systems (Attachment 1) and applications to DMOC and other personnel as determined by the government. In the performance of this function, the contractor shall: 1) review existing training methods and materials for deficiencies and recommend improvements; 2) identify training requirements and develop training materials for system operators and white force personnel; 3) keep training material relevant to the warfighter; 4) conduct training as required; and 5) review and evaluate training results.

1.5.4 GOVERNMENT FURNISHED INFORMATION

1.5.4.1 Initial organizational familiarization/orientation will be provided by the government.

1.5.4.2 Air Force publications are located at http://www.e-publishing.af.mil on the Internet. Local SOPs/OIs/directives will be made available by the Government and adhered to by the contractor. The contractor may develop their own processes for accomplishing outputs for those areas not specified by a directive, upon Government approval. The contractor is encouraged to use the most efficient method of producing work without sacrificing quality standards.

1.5.4.3 Supplements or amendments to listed publications from any organizational level may be issued during the life of the contract. The contractor shall immediately implement those changes (as directed by the Government).

1.6 GENERAL REQUIREMENTS

1.6.1 SECURITY

The contractor shall ensure compliance with the DD254 and any additional security requirements throughout the life of this contract

1.6.1.2 All contractor employees shall maintain, at a minimum, a Secret level clearance.

1.6.1.3 75% of both engineering and operations contract personnel (minimum) shall maintain a Top Secret (TS) level clearance with 50% of those having Sensitive Compartmented Information (SCI) and Special Access Program/Special Access Required (SAP/SAR) eligibility.

1.6.1.4 The contractor shall implement a security program for assigned contractor personnel that includes personnel security, documentation, and software/hardware control for items under the control of the contractor. The contractor shall provide the name, address, and phone number of the contractor's Facility Security Officer (FSO). The contractor FSO shall ensure compliance with all security requirements throughout the life of this contract.

1.6.1.5 The contractor shall assist with all security efforts, measures, activities, and inspections as required by the government Security Manager and will comply with the host base Visitor Group Security Agreement (VGSA).

1.6.1.6 The contractor shall interface closely with the government Security Manager, contractor security personnel, and others as required, to ensure administration and implementation of an effective security program.

1.6.1.7 Contractor personnel shall attend unit security training and additional security training as required.

1.6.1.8 The Contractor shall comply with all applicable laws and regulations regarding export-controlled items and services, including, but not limited to, the requirement for contractors to register with the Department of State IAW the ITAR. The Contractor shall consult with the Department of State regarding any questions relating to compliance with the ITAR. The contractor shall obtain and hold a current Technical Assistance Agreement (TAA) with the United Kingdom, Canada, New Zealand, and Australia as directed by the government.. The contractor will deliver a copy to the DMOC government Foreign Disclosure Officer. (A015)

1.6.1.9 The contractor shall comply with all applicable Export Control laws.

1.6.2 SAFETY

The contractor shall comply with the government unit safety program by implementing a corporate safety program to include: regular safety briefs; safety problem reporting procedures; and reporting of safety problems/corrective actions to the government Safety Officer

1.6.2.1 The contractor safety representative shall attend unit safety awareness training and provide that training to assigned contractor personnel.

1.6.2.2 The contractor shall correct safety discrepancies per government guidance

1.6.2.3 The contractor shall support audits of the safety program at intervals set forth by the government Safety Officer.

1.6.3 PERSONNEL

Contract personnel shall be responsible for all activities, certifications, safety, security practices and other applicable requirements which are required of equivalent Government personnel. The contractor shall comply with the requirements set forth in this PWS, the Visitor Group Security Agreement, applicable unit policies and instructions, and host base regulations.

1.6.3.1 All contract employees shall be US citizens.

1.6.3.2 The contractor shall not employ persons for work on this contract if such employee is a potential threat to the health, safety, security, and general well-being or operational mission of the installation and its population.

1.6.3.3 The contractor shall not employ any person who is an employee of the United States Government if the employment of that person would create a conflict of interest, nor shall the contractor employ any person who is an employee of the Department of Defense, either military or civilian, unless such person seeks and receives approval in accordance with the Joint Ethics Regulation.

1.6.3.4 Contractor employees shall present a neat and professional appearance and be easily recognized as contractor employees by displaying any required identification as directed by the government.

1.6.3.5 Employee identification shall be visible at all times. Contractor employees entering controlled areas are required to display a controlled area badge.

1.6.3.6 The selection, assignment, reassignment, transfer, supervision, management, and control of employees in performance of this work statement shall be the responsibility and prerogative of the contractor.

1.6.4 TRAVEL

1.6.4.1 The contractor shall support working, technical, and interchange trips as directed. Such travel includes but is not limited to: conferences, symposia, trade shows, users groups, and working groups. Following all trips, the contractor shall provide trip reports or meeting minutes (whichever is appropriate) for delivery in addition to the presented information. (A004, A005, A008)

1.6.4.2 Contractor travel will be coordinated with the COR and the 505 CCW/PK. The contractor will limit costs to the maximum practical extent to those authorized by the Federal Acquisition Regulation (FAR) and Joint Travel Regulation (JTR). The COR will monitor travel expenses. The contractor shall provide whatever reasonable supporting documentation is requested by the COR to facilitate the review of the charges.

1.6.5 HOURS OF OPERATION

Contractor core hours shall be from 0800 to 1500 during non-event periods (i.e., not event/exercise, training, test, or experimentation days), Monday through Friday. When necessary, additional contractor support shall be provided outside core hours to support extended periods for event execution, training, test or experimentation. Events may require use of intermittent, planned/unplanned overtime, or adjusted work hours.

1.6.5.1 The contractor shall assume a requirement for event support coverage over weekends when deemed necessary by government personnel

1.6.5.2 Government holidays shall be observed during non-event periods

1.6.5.3 If the Government facilities are closed due to inclement weather or any other authorized closure, the contractor shall not bill the Government for those hours unless the contractor can perform productive duties from an alternate worksite.

1.6.6 TRANSITION

It is anticipated that mission essential work will be in progress through the transition or phase-in/phase-out period of this contract. Therefore it is essential that attention be given to minimizing any interruption. The successful contractor's transition plan shall provide for maximum cooperation between successor and incumbent contractors while ensuring no work receives inadequate attention during the phase-in/phase-out period. The contractor shall plan for the transfer of work control delineating the method for processing and assigning tasks during the phase-in/phase-out period (A010).

1.6.6.1 The contractor shall develop a transition plan describing how program success will be ensured, including: how phase-in requirements will be met, workload estimates, priority allocations of personnel and resources, scheduled completion dates of key events, and plans for mitigating risk factors. The plan shall identify key positions, including why they are considered key, and provide resumes for key positions. The plan shall also address the need to train and certify new contractors if the incumbents are not retained. The contractor shall ensure uninterrupted service and mission continuity of the governments requirements during the phase-in process, including providing all necessary qualified personnel (A010).

1.6.6.2 The contractor shall ensure a smooth transition with the successor during the phase-out period, prior to completion of contractual performance. The contractor shall work with the successor during a 30-day phase-out period beginning no earlier than 30 days prior to scheduled contract completion. The contractor shall aid the successor in the development of plans, procedures and methods for assumption of all on-going work. The contractor shall provide an orderly transition of work acceptance and accomplishment so that full control by the successor is achieved by the end of the phase-out period.

1.6.7 MONITORING & PERFORMANCE EVALUATIONS

1.6.7.1 SURVEILLANCE

The Contracting Officer (CO) will assign a Contracting Officer's Representative (COR) to oversee this contract. The COR will act as the primary interface with the contractor and will provide Quality Assurance Surveillance on behalf of the CO.
In addition to regular surveillance, contractor performance will be monitored through random, periodic (to be conducted at least quarterly), and scheduled on-site surveillance by the COR. In order to fulfill surveillance requirements, the contractor is required to provide monthly status reports, as well as contract funds and schedule status reports.
As part of the QA surveillance process, the COR will solicit positive and negative feedback from designated stakeholders (associated with this contract) and validate any complaints as part of the service evaluation. The COR will assess the quality of each service provided and make a final recommendation to the CO. In turn, the CO will make a final determination of the acceptability of the service rendered. After a determination has been rendered, associated CLINs will be closed accordingly. See FAR 52.246 Inspection of Services.

1.6.7.2 CONTRACT PERFORMANCE ASSESSMENT REPORTING SYSTEM (CPARS)

The CPARS evaluation factors and rating criteria will be utilized to measure performance. In addition, the CPARS will be used to record annual evaluations as well as the contractor's final evaluation at the end of the contract performance period.

1.6.8 QUALITY ASSURANCE

1.6.8.1 Quality Assurance Plan (QAP)

The contractor shall develop, implement, operate, and maintain a Quality Assurance Plan (QAP) compliant with AS9100C to ensure the requirements of this contract are met. The Contractor's QAP shall recognize the Government's Quality Assurance and Surveillance Plan (QASP) and FAR clauses 52.246-2, 3, 4, and 5 Inspection of Services and Supply for Fixed Price and Cost Reimbursement. (A014)

1.6.8.2 QAP Requirements

The contractor's QAP shall at a minimum, address the following:

- Description and classification of each finding and any required or suggested corrective action(s)
- Observations
- Opportunities for improvement
- Whether a follow-up is needed, and a follow-up closure date
- Root cause analysis

Attachment 1: OPERATIONAL SYSTEMS AND TOOLS

The DMOC either maintains locally or regularly connects to a large number of LVC/DMO-capable systems to include, but not limited to:
Live and Virtual Simulators: A-10C, AC-130U, Aegis, AH-64D, AOC, ASOC, B-1B, B-52H, C-17A, CRC, DASC, DCGS, EC-130, F-15C, F-15E, F-16 CJ, F-22, F-16CM, AF-18A, CF-18A, F/A-18C/D, E-2C, E-3C/D/G, E-8C, EP-3E, JTAGSS, JTC-TRS, JSAF, KC-10, MC-130H, MC-130J, MH-60R/S, MV-22, MOC, MQ-1/9, PATRIOT, RC-135V/W, RQ-4, TOC, TAOC, RT3.

Environment Generators/Constructive Simulators: Air and Space Constructive Environment-Information Operations Simulation (ACE-IOS), Automated Scriptor Simulator Exercise Trainer (ASSET), Advanced Simulation Combat Operations Trainer (ASCOT), Air Force Synthetic Environment for Reconnaissance and Surveillance (AFSERS), Combat Environment Server (CES), Distributed Information Warfare Constructive Environment (DICE), Extended Air Defense Simulation (EADSIM), Joint Semi-Automated Forces (JSAF), Joint Conflict and Tactical Simulation (JCATS), Modern Air Combat Environment (MACE), Next Generation Threat System (NGTS), One Semi- Automated Forces (OneSAF).

DMO Tools: Air Defense Systems Integrator (ADSI), Advanced Field Artillery Tactical Data System (AFATDS), Air Force Tactical Receiver System (AFTRS), Command and Control Personal Computer (C2PC), Combat Survivor/Evader Locator (CSEL), CRC Simulation Package (CSP), Datalinks, Adobe Connect, Distributed Interactive Simulation (DIS) Filter, DIS Digital Integrated Air Defense System (DIADS), ASTi Voisus, Test and Training Enabling Architecture (TENA) Gateway, DMOC Radio Emulator (DRE), Dr J, Radiant Mercury, FireCue, FireSim, Global Command and Control System- Joint (GCCS-J), DMOC Replay tool (DRT), Intelligence Surveillance Reconnaissance (ISR)/ Battle Damage Assessment (BDA), Joint Automated Deep Operations Coordination System (JADOCS), Joint Data Terminal (JDT), Joint Range Extension (JRE), MAPSTAT (DMOC network status tool), Tactical Chat, Quick Draw, Redsim, Tactical Air Control Party-Close Air Support System (TACP-CASS), Theater Battle Management Core System (TBMCS), Voice over Internet Protocol (VoIP), Voice over Secure Internet Protocol (VoSIP), VLC media player, Video Teleconferencing (VTC), Secure Video Teleconferencing (SVTC), TACCSF Software Router (TSR), Zeus, Joint Mission Planning System (JMPS), Portable Flight Planning System (PFPS), Execution Planning Software (XPlan), Master Air Attack Plan – Toolkit (MAAP-TK), C2CORE, BSI Viper, Telestra

Networks: Air Reserve Component Network (ARCNet), Defense Research and Engineering Network (DREN), Distributed Mission Operations Network (DMON), Joint Information Operation Range (JIOR), Joint Training and Experimentation Network (JTEN), Navy Enterprise Tactical Training Network (NETTN) (also known as Navy Continuous Training Environment (NCTE), and Defense Information Systems Agency (DISA) circuits.

Simulators/DMO tools located at the VTTC: BC3 Multi Source Correlation Tracker (MSCT), SPIDR, Dr J, DIS Filter/DIS Filter Manager, TransVerse, REDSIM, Radio Ranging Tool (RRT), ASTi Voisus, BSI Viper.

Attachment 2: DMOC MISSION AREAS

Competency in mission areas require current operational knowledge (i.e. to include but not limited to: Joint Pubs, Allied Pubs, Service specific TTPs/SOPs) in the planning, tasking, coordination and execution phases for all agencies, weapon systems and personnel supporting. The following list is partitioned based on required mission areas (R) and desired mission areas (D). The desired mission areas are futher prioritized by importance indicated by the number with "1" being the most desired area and "5" the least:

	R	Airborne C2 (i.e. E-3, E-2C, E-8)
	R	Ground C2 (i.e. CRC, EADS, WADS)
	R	Fighter OCA/DCA (i.e. F-22, F-15C/E, F-16C, F-18F)
	R	AOC / COD (i.e. DT/TST experience)
	R	OPFOR (i.e. Plans, Ops, Lead- Red 1, plan/construct/execute relevant enemy forces/tactics)
	R	CAS Lead (i.e. ALO ASOC)
	R	Bomber (i.e. B-1, B-52, B-2)
	R	ISR Ground (i.e. DCGS)
	R	Airborne ISR (i.e. RJ, EP-3, E-8, RQ-4)
	R	Ground Maneuver/Surface Fires (i.e. TOC)
	R	IAMD (Navy/Aegis, Army ADA)
	R	JTAC
	R	RPA (MQ-1/9 Surface Attack Tactics and Weapons)
	R	CYBER/IO (Defensive and Offensive Operations)
	R	Datalinks (i.e. JICO)
	R	WAS/AOMSW (i.e. MASOC, F/A-18)
1	D	EW/SEAD/IADS (i.e. EC-130H, EA-18G, EA-6B, F-16CJ)
2	D	Airlift (i.e. C-17, C-130)
3	D	SOF (i.e. SOTF, SOLE, SOFC2)
4	D	CSAR/PR (Sandy preferred or HH-60, CRO, PJ, JPRC or service equivalent)
5	D	ISRD/ACF
6	D	Tanker

This list is not intended to direct contractors to provide one specialist per mission area.

Specialists with recent (within five years), credible experiences and broad exposure within a single or multiple mission area(s) are preferred over individuals who have a narrowly defined scope of experience within one mission area.

Among individuals who have experience in the required mission areas, those who also have experience in the desired mission areas are preferred over those limited to experience within their primary mission area.

Attachment 3: LIST OF MISSION PLANNING DOCUMENTS

List of candidate documents (and typical lead time prior to event) depending on scope of the event and government direction:

Area Air Defense Plan (AADP)
Joint Integrated Prioritized Target List (JIPTL)
Airspace Control Order (ACO)
Air Battle Plan (ABP)
Air Tasking Order (ATO)
Intelligence, Surveillance, and Reconnaissance (ISR) Collection Deck (includes JSTARS, RJ, EP-3, EC-130H, RQ-4, MQ-1/9, MC-12, U-2)
Equipment List (all internal and external equipment – Red, Grey and Blue)
Engineering Test Scenario (ETS)
Orders of Battle (OBs) (GOB, AOB, NOB, DMOB, MOB, EOB, SOB)
Parametric Database
Smart Packs
Threat to Air Operations
Communications Plan
OPTASKLINK and OPTASKLINK Cutsheet
Special Instructions (SPINS) (Baseline, Daily, Weekly)
Airspace Control Plan (ACP)
Air Operations Directive (AOD)
Reconnaissance, Surveillance, and Target Acquisition (RSTA – collateral and SCI)
Target Nomination List (TNL)
No Strike List (NSL)
Restricted Strike List (RTL)
Joint Master Scenario Event List (JMSEL)
Computer Generated Force (CGF)/(Environment Generator (EG) scenarios/databases
Operations Order (OPORD)
Fragmentary Order (FRAGO)
Air Support Requests (1972s)
Internet Relay Chat (IRC) Plan
Authentication Matrix

* This list stresses "candidate" documents, as not all of these may be required for a particular event. Requirement will determine what is needed or not needed and specifics will be documented in government direction.

Baseline (FFP)

CLIN 0001 - CORE BATTLE SPACE OPERATIONS LABOR (O&M)	Sep 2013/ Sep 2014 Hours/Year	Sep 2014/ Sep 2015 Hours/Year	Sep 2015/ Sep 2016 Hours/Year	Sep 2016/ Sep 2017 Hours/Year	Sep 2017 / Sep 2018 Hours/Year	TOTAL
Hours	**35,773**	**35,773**	**35,773**	**35,773**	**35,773**	**178,866**
Narrative: CLIN 1* includes O&M support for: program management; VIRTUAL FLAG scenario build, planning, execution, and closeout; Battlespace requirements; constructive sim sustainment; virtual sim sustainment; DMO tool sustainment; Multi-National Information System work; and DMO standards work						
Virtual Flag Total	25,582	25,582	25,582	25,582	25,582	
VF Planning and scenario build	14,940	14,940	14,940	14,940	14,940	
VF Execution	8,954	8,954	8,954	8,954	8,954	
CDIS/DTNG	409	409	409	409	409	
VF After Action Report, Compile, Analyze Data	1,279	1,279	1,279	1,279	1,279	
Transition	552	552	552	552	552	
DMOC Technical Support	903	903	903	903	903	
Management, Admin, Meetings	1,854	1,854	1,854	1,854	1,854	
Document Review	133	133	133	133	133	
General Planning Labor	1,906	1,906	1,906	1,906	1,906	
Virtual & Constructive Simulation Planning/Sustainment	2,216	2,216	2,216	2,216	2,216	
Internal WFEs (Weapons School, JKCE, Emerald Warrior)	2,390	2,390	2,390	2,390	2,390	
SME Training	237	237	237	237	237	
CLIN 0002 - CORE RDT&E SUPPORT LABOR	**Sep 2013/ Sep 2014 Hours/Year**	**Sep 2014/ Sep 2015 Hours/Year**	**Sep 2015/ Sep 2016 Hours/Year**	**Sep 2016/ Sep 2017 Hours/Year**	**Sep 2017 / Sep 2018 Hours/Year**	**TOTAL**
Hours	**19,700**	**19,700**	**19,700**	**19,700**	**19,700**	**98,500**
Narrative: CLIN 3* includes RDT&E support for: VIRTUAL FLAG integration, Studies & Analysis efforts, requirements and test work; DMO tool and system development						
Project Support (Requirements Development/Acceptance Testing)	4,000	4,000	4,000	4,000	4,000	
Misc RDT&E Support	6,000	6,000	6,000	6,000	6,000	
VF Site/System Integration	9,700	9,700	9,700	9,700	9,700	