

**FA9101-22-R-B001**

**Attachment 6**

**Statement of Objectives**

**Test Operations and Sustainment (TOS) II**

**7 February 2023**

## **Arnold Engineering Development Complex (AEDC)**

### **Test Operations and Sustainment (TOS) II**

#### **Statement of Objectives (SOO)**

##### **1.0 Introduction:**

HQ Air Force Materiel Command's (AFMC) Arnold Engineering Development Complex (AEDC) is a national aerospace asset. The AEDC Team brings to bear its unique facilities and world-class talent to develop solutions to the Nation's aerospace challenges by conducting tests and performing engineering analysis and technical evaluations on problems that span the entire acquisition lifecycle. AEDC's customers include various Air Force and Department of Defense entities, other Government agencies, industry, and foreign interests. In addition to performing testing and analysis to generate data, information, and knowledge, AEDC conducts applied research to develop new technologies, techniques, and measurement methods for advanced test facilities. The purpose of this solicitation is to obtain the expertise and services necessary to support AEDC in execution of its mission. Innovative business arrangements and initiatives are encouraged.

##### **2.0 AEDC Mission:**

AEDC supports the development, test, and evaluation of weapon, air-breathing propulsion, aerodynamic, and space systems for the nation through operation of ground test facilities as well as modeling and simulation. AEDC operates more than 68 aerodynamic and propulsion wind tunnels, rocket and turbine engine test cells, space environmental chambers, arc heaters, ballistic ranges and other specialized units. Many of the Complex's test units have capabilities unmatched elsewhere in the United States; some are unique in the world. AEDC's mission is to test and evaluate systems to meet the demands of the National Defense Strategy (NDS). Our primary product is knowledge; we provide our customers with the aerospace systems knowledge necessary to ensure our Nation's competitive advantage. To deliver this knowledge, AEDC maintains and utilizes its unique ground test facilities; develops new test techniques and computational capabilities; and cultivates, empowers, and employs its world-class workforce. In order to deliver the requisite knowledge that our customers depend upon, AEDC maintains the following priorities: pursue mission excellence, invest in our people, and improve and sustain the Complex. With these priorities in mind, AEDC has developed the 2023 Strategic Plan that it will pursue to ensure its people, processes, and products provide the warfighter with a best value solution to their test and evaluation needs. The 2023 Strategic Plan consists of the following four goals that, when achieved, will ensure AEDC is successful in fulfilling its mission: Creating an Environment in which our Teams will Thrive, Plus-Up Planning, Business Operations, and Digital Engineering and Continuous Process Improvement. Committing to these goals will promote AEDC's ability to (1) develop a cohesive, motivated workforce capable of realizing its full potential; (2) prepare for and successfully execute an extraordinary surge in workload and funding; (3) maximize the efficacy of test and evaluation for weapons system development; (4) and improve the stewardship and efficiency of existing resources.

### **3.0 Specific Goals:**

AEDC's ability to achieve its vision (see Attachment 1) will rely on an integrated approach between the Government workforce and the Test Operations and Sustainment (TOS) II contractor working as one focused team. The TOS II contractor will be challenged to provide innovative, effective approaches that enable their workforce to contribute to the goals stated above and in the AEDC Commander's Intent (see Attachment 2). Good intentions in our decision-making are not enough for AEDC to remain relevant in its role to support the NDS. We must be diligent and disciplined in our efforts to continually transform the way we do business. We must be innovative and bold in meeting the needs of our customers. We must find ways to become more valuable to our customers and our Nation.

An integrated, collaborative, innovative, trusted, and empowered team is indispensable to AEDC's mission. A resolute effort by the Government and the TOS II contractor to synergize and align their efforts will be a critical enabler for AEDC to achieve its goals and provide superior products to our customers at the best possible value. The TOS II contractor should strive to meet the goals described below while meeting all Performance Work Statement (PWS) requirements and performance standards.

### **3.1 Creating an Environment in which our Teams will Thrive:**

The AEDC mission depends on talented and agile employees who are dedicated to serving our Nation. The business of AEDC depends on the combined efforts of the Government and Contractor workforce successfully achieving and maintaining the technical prowess to solve the most difficult aerospace development problems while earning and maintaining the unqualified trust and confidence of our customers. This is unlikely to be accomplished without the ability to develop, deploy, and sustain a complex-wide program that emphasizes and develops the various traits that enable the Contractor team to deliver on that objective.

#### **Desired Attributes:**

- Flexible, agile, productive, fully empowered, accountable, expert workforce
- Efficient, cost-effective training to develop and refine needed skills
- Effective mentoring and coaching
- Challenging and stimulating learning and growth opportunities
- Understanding of AEDC organizational interfaces, interrelationships, and processes required for effective operations
- Knowledge of how to lead, motivate, challenge, and reward the workforce to help them consistently achieve ever-higher levels of excellence
- Leadership ability to forge strong business, technical, and working relationships based on open and honest communication across the entire AEDC enterprise

#### **Desired Outcomes:**

- Contractor workforce externally recognized for excellence in test and evaluation techniques, test operations and sustainment of ground-test facilities, and development of test technologies

- AEDC is the preferred solution provider in the aerospace ground test community
- Established learning organization that willingly shares technically exceptional knowledge and ideas across the AEDC workforce, customer-base, and stakeholders
- A highly motivated, fully engaged, fully developed, and properly recognized Contractor workforce that is passionate to achieve the AEDC 2024 Vision
- Unparalleled levels of cooperation and communication across the entire AEDC enterprise independent of organization or contract
- High levels of trust and respect between leaders, managers, supervisors, peers and subordinates

### **3.2 Plus-up planning:**

AEDC will experience a significant surge in workload and funding during the first five to seven years of the TOS II contract. It is anticipated that investments into the AEDC infrastructure to support nuclear modernization and hypersonic weapons systems development will drive the annual workload requirements to double or triple that which traditionally occurs in the course of an execution year. The TOS II Contractor will be challenged to meet the demands of the surge workload without hindering the test mission. Successful execution will depend on the Contractor's ability to rapidly mobilize the manpower resources, materials, and tools required for discrete special emphasis projects. While specific projects may be sourced through other contract vehicles, the TOS II Contractor will be integral to successful execution of all programs as they will be expected to assist in planning, design, evaluation and providing support during implementation. The Contractor will need to develop new and innovative ways of managing its workforce and the AEDC infrastructure such that test capabilities are available when needed, for both current and future programs, to support the NDS.

#### **Desired Attributes:**

- Efficient execution of capital investments, sustainment, and operations supporting nuclear modernization and hypersonic weapon systems development
- Ability to effectively execute test mission requirements concurrently with modernization and investment special emphasis project efforts
- Responsive resourcing with efficient alignment of workforce knowledge, skills, and abilities to a rapidly increasing and decreasing workload
- Informed decision making through appropriate analysis of relevant data, thorough risk management, relevant professional experience, and sound technical judgment

#### **Desired Outcomes:**

- Shared vision focused on effective recapitalization of Air Force ground test infrastructure
- Forward-thinking project planning such that downtime in operating facilities is minimized
- Optimized utilization of resources that ensures the right-sized workforce, in the right place, at the right time
- Efficient and effective expansion of AEDC's nuclear modernization and hypersonic weapon systems test capabilities

### **3.3 Business Operations:**

The objective for Business Operations is to allow AEDC to provide the most “bang for the buck” warfighter capability development within resource constraints. AEDC’s processes must enable our workforce to efficiently and effectively perform the myriad tasks required to meet the warfighter’s needs. The processes must capture the means to deliver superior products to our customers and must enable the passing of knowledge gained in one part of the organization to other parts. While well-structured and well-documented processes are important, we value a workforce that exercises critical thinking in their application and does not follow process simply for the sake of following process. In addition, of equal importance to a set of well-documented and highly effective processes is the ability to modify and tailor those processes, as necessary, to a dynamic work environment.

#### **Desired Attributes:**

- Understanding of the customers’ needs, and understanding of the workforce’s ability to meet those needs
- Knowledge and demonstrated ability to execute the organization’s business model
- Processes intensely focused on enabling the workforce to deliver superior products and services at best value
- Processes are streamlined, well-defined, transparent to the customers and incorporate performance measures
- Lessons learned are well-documented so processes can be updated to reflect the lessons learned

#### **Desired Outcomes:**

- Right-sized, reliable infrastructure
- High workforce knowledge, skills, and abilities
- Contractor focus on unity of effort with the Government, other contractors, and Key Stakeholders
- Workforce delivers solutions based upon a culture of technical rigor and world-class competency
- Reduction in cost of operations over time while preserving existing test envelopes and generating new test envelopes required for future systems
- Continual improvements in test product content, test product delivery times, and test product quality

### **3.4 Digital Engineering and Continuous Process Improvement:**

The anticipated and unprecedented levels of workload requirements that the TOS II Contractor will be tasked to support drives the need to implement new and novel ways of conducting mission sets and collaboration to maximize resources to support the NDS. AEDC’s culture must be intensely focused on positively motivating and enabling the workforce in such a manner that the workforce continually seeks innovative opportunities to reach ever-higher levels of performance. AEDC’s ability to meet its out-year mission will require the creation of a

corporate culture built from an environment that challenges and stimulates, that allows for exploration and discovery, and that rewards innovation, judicious risk taking, and an intense focus on continuous improvement.

Desired Attributes:

- Ability to develop innovative approaches to successfully execute business
- Processes can be tailored, as necessary, by an innovative and creative workforce to respond to immediate and unique needs of customers
- Processes are designed to be continuously improved through a well-established quality management system approach
- Reasoned trade-off evaluations between rewards innovation and judicious risk taking; recognizing the possibility of failure
- High value placed on intellectual curiosity
- Discontent with status-quo; leadership and the workforce possess a continual drive to improve their ability to meet AEDC's mission

Desired Outcomes:

- Decisions that consistently demonstrate awareness through risk management that at times incorporate acceptance of identified risks as a trade-off to cost in our operational decisions and processes
- Timelines and costs associated with product and services activities are tracked and demonstrated to be continually improving (e.g., cycle time reduction, actual cost reduction)
- Non-value added process steps are eliminated
- Outdated, bureaucratic processes are eliminated
- The Contractor's workforce demonstrates empowerment to challenge and improve the way the organization conducts its business
- The efficiency of knowledge generation and migration throughout the Contractor's workforce is consistently improving

## **Attachment 1**

### **Arnold Engineering Development Complex (AEDC) Vision**

Seventy-eight years ago, while still embroiled in World War II, General Hap Arnold envisioned an Air Force of the future: technologically superior to any potential competitor. Today, standing on the foundation of the National Defense Strategy, and in support of the Air Force Test Center, we renew our commitment to his vision to ensure U.S. Air and Space Power remains: **Second to none!**

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## **Attachment 2**

### **Arnold Engineering Development Complex (AEDC) Mission and Commander's Intent**

#### **AEDC Mission:**

"Test and evaluate systems to meet the demands of the National Defense Strategy."

#### **AEDC Commander's Intent:**

As the commander of Arnold Engineering Development Complex, I am consistently amazed at the professionalism, dedication, and resilience of our team! The nation looks to AEDC to deliver premier developmental test and evaluation capabilities for DoD's most critical weapons systems, and we are a vital part of the Air Force Test Center. We are all engaged on the front lines of peer competition, and AEDC continues to deliver war-winning capabilities that serve as the ultimate deterrence to our adversaries.

Our strategic goals and action annex continue to focus on implementation of the National Defense Strategy and the Secretary of the Air Force's Operational Imperatives. We will continue to focus our efforts on supporting our Airmen by creating an environment in which they will thrive. We also look to complete the stand up of a program office that will lead our major investment planning and refine our acquisition processes. We will also continue to emphasize efforts to provide the best support for our customers by refining our business operations. Finally, with innovation at the forefront of everything that we do, we will make great strides in digital modernization and continuous process improvement.

We must remember that we are warriors by instilling this mindset in everything that we do. We are part of the greatest Air Force this world has ever known, and the Nation is counting on each of us to accomplish our critical mission.