

SIMULATORS DIVISION (AFLCMC/WNS)

Update

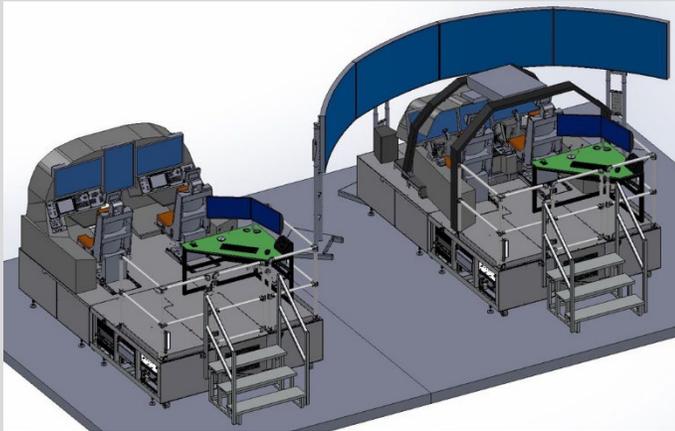
21 June 2023

**Ms. Penny Mason
Deputy Division Chief
Simulator Division**

Recent Successes



SCARS DEVSECOPS Demonstration - CAE



8,400 Training Events
26,635 Training Hours
1,800 Aircrews Trained
19,500 Personnel Trained

MAF DMO – HII
DMON – Northrop Grumman







75 Programs



575+ Members Strong

FY22



653 Contract Actions



\$3.4B Active Year
(includes \$1.5B for FMS)



667
Funding Documents

supporting



9
MAJCOMS



ANG



29
Program
Offices



Navy



20
Countries



2,300+

Training Devices
Over 93% of the Air Force
inventory





DIVISION CHIEF / SENIOR MATERIEL LEADER
Col C, 'Matt' Ryan



DEPUTY DIVISION CHIEF
Penny Mason



CHIEF OF ENGINEERING (EN)
Kelly Navarra

DEPUTY
Jeff Pfledderer



CHIEF OF FINANCE (FM)
Kristen O'Sullivan

DEPUTY
Bruce Comer

CHIEF OF LOGISTICS (LG)
Richard Swain

DEPUTY
Christal Green



CHIEF OF CONTRACTING (PK)
Christine Diehl

DEPUTY
Abby Hoefler



AIR COMBAT Branch Chief
Renee Sauerland

DEPUTY
Michael Hayes

EN – Susan Schemmel/
Djauna Prewitt/Barry Green
FM – Eric Gilley
LG – Michael Baldwin
PK – Abby Hoefler

Fighter/Attack
Maj Anthony Maxie

Bombers/Special Mission
Maj Alex Hermes



AIR MOBILITY Branch Chief
Monika Mapley

DEPUTY
Rex Easley

EN – Barry Green /
Gernai Bledsoe
FM – Brooke Gibson
LG – Christal Green
PK – Richard Fries

Airlift
Holly Hogsett

Tankers
Rex Easley (Acting)



SPECIAL OPS & AETC Branch Chief
Lt Col Josh Trantham

DEPUTY
Lt Col Blake Bradford

EN – Brian Woehrman /
Greg Enochian
FM – Josh Elliott
LG – Tonita Davis
PK – Shane Hemmerich

Special OPS
Lt Col Blake Bradford

Air Education
Maj Sean Morris

Innovation Cell
Douglas Patton



OPERATIONAL TRAINING INFRASTRUCTURE Branch Chief
Lt Col Drew Frazier

EN – Tom Casey/ Mike Baker
FM – Steve Heyl
LG – Vacant
PK – Shane Hemmerich

Distributed Training Systems
Vacant

Common Architecture & Standards
Scott Poznanski

Cybersecurity
Gary Coe



OPERATIONAL TRAINING ENVIRONMENT Branch Chief
Lt Col John Kovacic

DEPUTY
Johnny Clark

EN – TBD
FM – TBD
LG – TBD
PK – TBD

Joint Simulation Environment
Johnny Clark



FMS Branch Chief
Doug Rogers

EN – Terri McBeth
FM – Eric Ellsworth
LG – Robert Hemmerly
PK – Michael Carbone

Fighter Programs
Tanya Hopson

Airlift / Tanker Programs
Vacant

New Business
Jesse Dewberry



ANALYSIS & INTEGRATION Branch Chief
Scott Cummings

EN – Jeff Pfledderer
FM – Vacant
LG – Vacant
PK – Vacant
T&E – Pat McLeod

Program Control
Vacant

Division Action Group
Kara Truelove

Guiding Efforts



- Implementing Simulator Common Architecture Requirements and Standards (SCARS)
- Developing, fielding and sustaining a common synthetic environment (Joint Simulation Environment)
- Increasing the capability and interoperability of distributed training networks
- Ensuring sufficient concurrency, fidelity, connectivity, and recapitalization of training systems

SCARS provides an Enterprise Solution

An enterprise solution must be capable of spanning multiple generations of training systems

Key Attributes

- Common Design
- Common Computational Tech Stack
- Single USAF-Wide Ops Center
- User Development Toolkit

Warfighter

- Increase in speed to the field
- Higher fidelity of models
- Improved interoperability
- Reduced cyber risk

Acquisition

- Increase in speed to the field
- Reduced acquisition cost
- Lower life cycle cost
- Reduced vendor lock
- Less contract actions

Industry Partners

- Voice in standards
- Opportunity to develop common models
- Higher reuse/less development risk for affiliates, pathfinders

SCARS Standards



On Premise Equipment (OPE) Basic Integration

Specifications for interfacing a training system with SCARS OPE

Common Security Controls

Specifications for inheriting security controls from SCARS Security Operations Center to a training system integrated with an OPE

Certification Process

Processes for verifying and sustaining compliance with SCARS Standards

Application Certification

Processes for certifying and migrating simulation applications to SCARS OPE

Data

Specifications for standard data formats for interoperability, including Geospatial Data Specification (GDS) and the MBSE Style Guide

DevSecOps

Processes for development and sustainment of software on SCARS OPE, using a CI/CD pipeline

To request access to the SCARS Standards, email aflcmc.wns.scarsstandards@us.af.mil



JOINT SIMULATION ENVIRONMENT (JSE)

SCOPE



Many-on-Many Mission Analysis



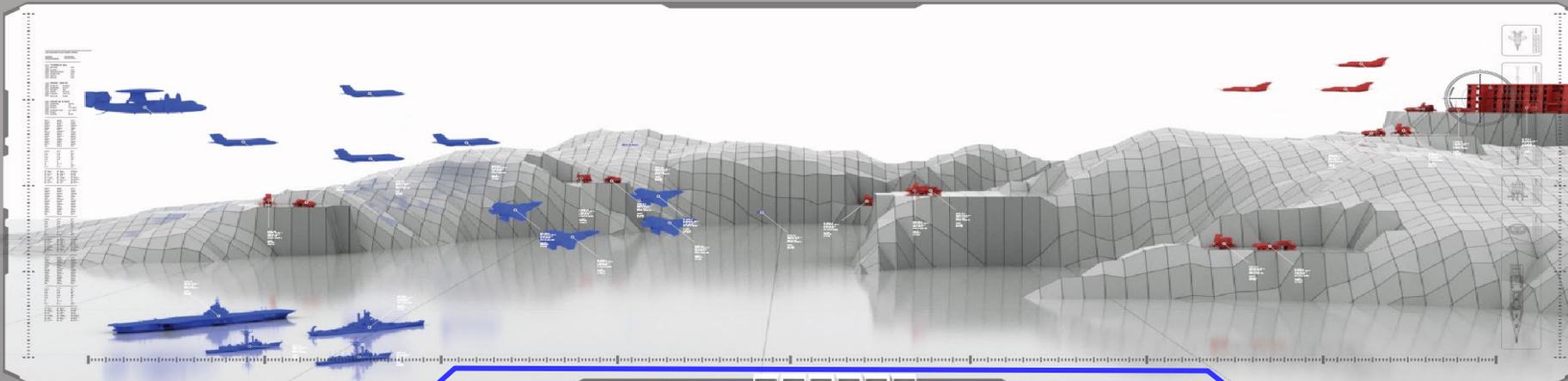
Verification and Validation



MITL Training



Tactics, Techniques, and Procedure (TTP) Development and Validation



MISSION TYPES SUPPORTED

Cruise Missile Defense (CMD)

Defensive Counter Air (DCA)

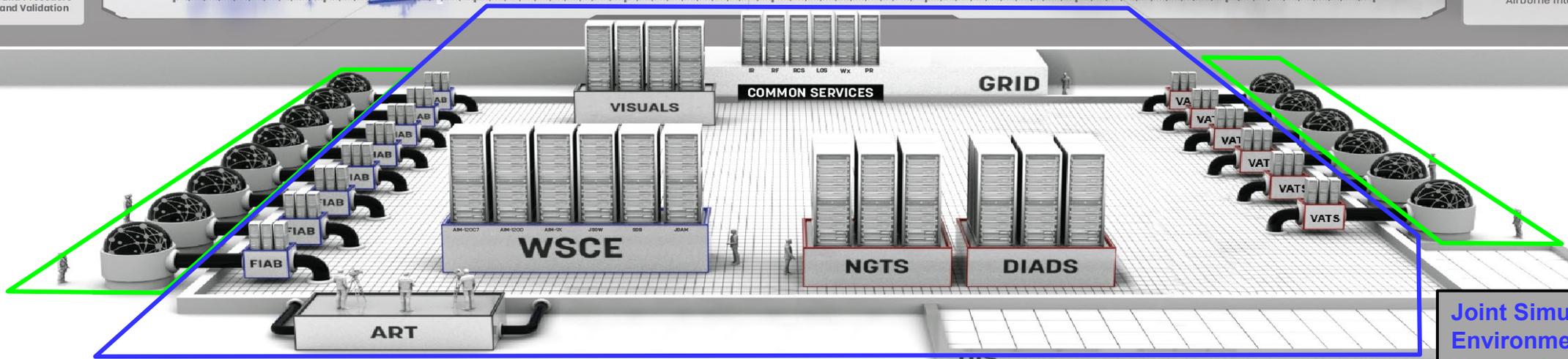
Offensive Counter Air (OCA)

Suppression of Enemy Air Defenses (SEAD)

Destruction of Enemy Air Defenses (DEAD)

Strike

Airborne Interdiction



Joint Simulation Environment
Human System Interface

KEY FEATURES



SUPPORTS ALL SECURITY LEVELS



THREAT MODELS REFLECTING THE LATEST INTELLIGENCE DATA



GOVERNMENT-OWNED EXPANDABLE ARCHITECTURE



DENSE THREAT LAYDOWNS WITH HUNDREDS OF ENTITIES



REAL-TIME MISSION PLAYBACK



BLUE AND RED MAN-IN-THE-LOOP (MITL)



INTEGRATED NEXT GEN THREAT SYSTEM (NGTS)

GRID: Global Reusable Interface Domain

Communicates physics-based interactions and propagation effects to all entities

- WNS: Provides Systems Engineering
- Funding Source: 50/50 USAF/USN
- Integrator: NAWCAD

Common Services

Services that generate the physics-based data that describe the synthetic environment. Critical to providing a "fair fight" (e.g., RF, IR, weather, etc.)

- WNS: Provides Systems Engineering
- Funding Source: 50/50 USAF/USN
- Integrator: NAWCAD / 445 TS / SWEGs

NGTS: Next Generation Threat System

Synthetic environment generator, models hundreds of threat and friendly constructs. Hosts high fidelity MSIC and NASIC models

- WNS: Provides Systems Engineering
- Funding Source: 50/50 USAF/USN
- Integrator: NAWCAD / 445 TS / 31 CTS

DIADS: Digital Integrated Air Defense Simulation

C3, data flows/links, and operator displays of a threat IADS, early warning and height finder radars

- WNS: Provides Systems Engineering
- Funding Source: 50/50 USAF/USN
- Integrator: NAWCAD/412 EWG

WSCE: Weapon Server Common Environment

Real-time, high-fidelity kinetic weapon fly outs and Blue counter-measures

- WNS: Provides Systems Engineering
- Funding Source: 50/50 USAF/USN
- Integrator: NAWCAD / 445 TS

VATS: Virtual Air Threats

Authoritative Piloted Air Threat using NASIC TMAP models

- WNS: Provides Systems Engineering
- Funding Source: 50/50
- Integrator: XA

ART: Analysis & Reporting Tool

Enables near real-time and post mission analysis of simulation generated data

- WNS: Provides Systems Engineering
- Funding Source: 50/50 USAF/USN
- Integrator: NAWCAD

FIAB: Fighter In A Box

Rehosted OFP representing a Blue System of Interest (e.g., F-22, B-21, etc.)

- WNS: Manages fielding & sustainment
- Funding Source: Platform SPO or WNS
- Integrator: NAWCAD / 445 TS / SWEGs / XA

HSI: Human Systems Interface

Domes, visual systems, cockpits, etc.

- WNS: Manages fielding & sustainment
- Funding Source: WNS
- Integrator: WNS

JSE Partner Sites



Test Site
Dev Site
Program Office

TGS
Affiliate Site (Partial JSE)
@ Fallon NAS, NV

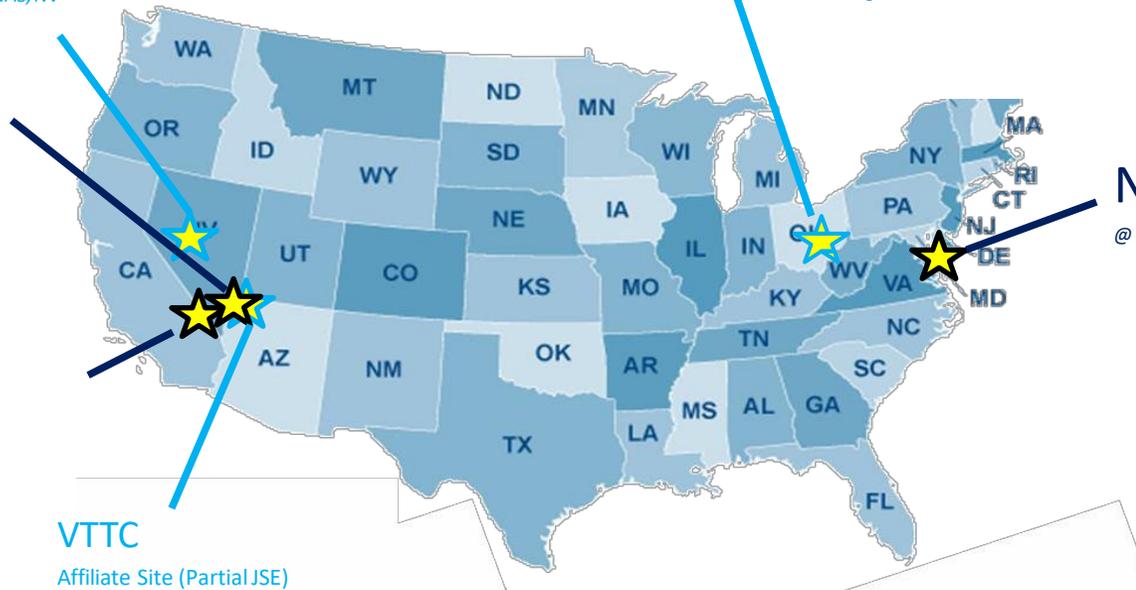
AFLCMC/XA
AFLCMC/WNS
• @ Wright Patt AFB, OH

AFOTEC/USAFWC
@ Nellis AFB, NV
(JSE-N)

NAVIR*
@ Patuxent River NAS, MD
(JSE-P)

412 TW
@ Edwards AFB, CA
(JSE-E)

VTTC
Affiliate Site (Partial JSE)
@ Nellis AFB, NV



* JSE-P is operational in support of F-35 Blk 3F IOT&E

- Future models and devices must have commonality to connect to JSE
 - GSI is the interface to JSE (how you will plug into the Global Reusable Interface Domain (GRID)); government owned standard for model development
 - Simulation Common Architecture Requirements and Standards (SCARS) Inc IV will include GSI
- Hi-fidelity (OFP-based) models of platforms and sensors required to fully leverage physics-based environment

Points of Contact



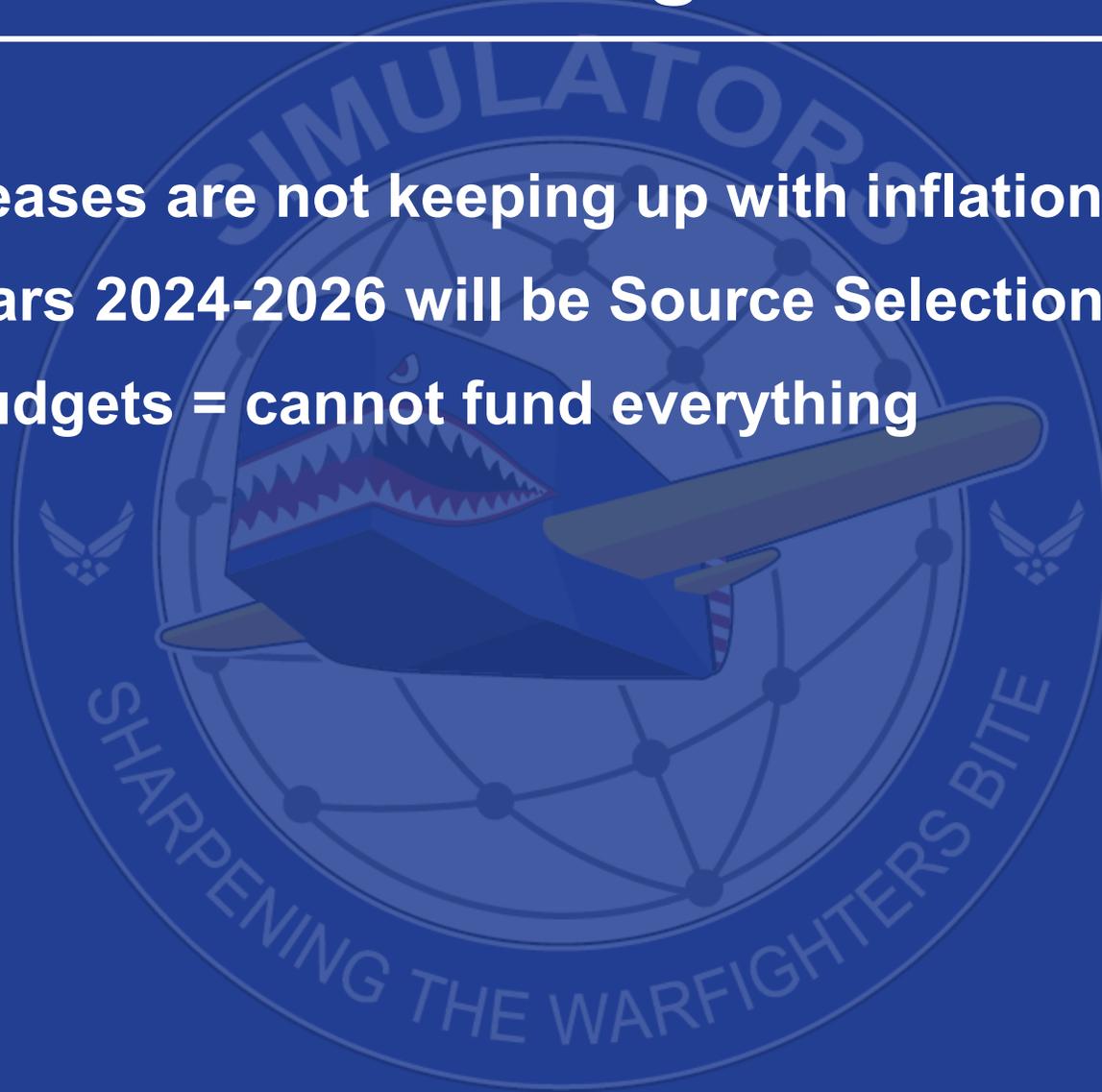
Col C. Matt Ryan (Senior Materiel Leader):
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Lt Col John Kovacic (Materiel Leader): john.kovacic@us.af.mil

Mr. Johnny Clark (Deputy Branch Chief): johnny.clark.1@us.af.mil



- **Budget increases are not keeping up with inflation**
- **Calendar years 2024-2026 will be Source Selection heavy**
- **Shrinking budgets = cannot fund everything**



Penny's Thoughts



- Interest in common/enterprise solutions
- Continuing to move toward digital materiel management
- Cyber and ATO's are becoming high priority and increasingly important
- TSA IV award is coming
- Emphasis on test standardization and thoroughness

- We value your partnership and appreciate your feedback as we work through execution challenges
- JSE is an Air Force priority program to field the synthetic test and training environment of the future...AF vision is ubiquitous use
- Strategic goal to characterize the cost/benefit of full (Stage 3) SCARS implementation as soon as possible
- SCARS can make training more affordable with common services/apps, and common h/w baseline
- Opportunity for light-weight sims to make training more affordable (family of targeted sims, JSE sites, etc.)
- Need your help with End-of-life software

CONTRACTING UPDATE



Ms. Christine Diehl
Chief of Contracting
Christine.diehl@us.af.mil
Simulator Division

2023

- (KDAM) RATS CLS/TSSC
- KDAM ATARS C&I
- TSA IV ~ Awarded

2024

- C-17 TS
- B-52 CLS/TSSC
- AWACS DRAGON FCTS
- CAF DMO/DMON 3.0

Roughly 25% of WNS USAF portfolio is sole source; 75% is competitive or undecided pending market research

2025

- C-5 ATS/MATS
- AFSOC ACTS
- ANG OTS
- T-6 GBTS
- AWACS MTS
- C-130J
- MATS Production
- F-15 TDAS

2026

- B-1
- B-2
- C-130H ATS
- C-130J MATS TSSC
- F-15 MTC
- KC-46 ATS
- KC-46 MTS
- Spatial D
- E-4B

2027

- A-10 TS
- F-16 STP
- KC-135

2028

- E-4B
- Alt Chambers
- MAF DMO?
- T-1A GBTS
- RATS CLS/TSSC
- KDAM ATARS C&I
- F-16 STP

- **TSA IV is a multiple award ID/IQ contract awarded 31 May 23**
- **Will utilize FAR 16.5 Fair Opportunity Selections**
- **Decentralized – any USAF PCO may use if program fits contract scope**
- **Ceiling = \$32.5B; 5 year base ordering period; two options to extend up to another 5 years of ordering; each order may have up to 10-year PoP**
- **37 contractors in award pool: 18 small businesses and 19 unrestricted (large) businesses**

- **Aero Simulation (ASI)**
- **Aerospace Training Systems Partners (ATSP) JV**
- **Aviation Training Consulting**
- **Craig Technologies**
- **CTE II JV**
- **CymSTAR LLC**
- **DRG of Oklahoma**
- **Falconry Training Solutions JV**
- **Fidelity Technologies Corp.**
- **Innovative Training Solutions JV**
- **JF Taylor, Inc.**
- **Logistics Services International**
- **Nova Technologies**
- **Phoenix Defense Ventures LLC JV**
- **Pinnacle Solutions**
- **PTC Solutions JV**
- **Radiance Technologies**
- **Spirit Simulation JV**

- Alion Science & Technology
- American Systems
- AXR Solutions JV
- Azure Training Systems JV
- Boeing
- Booz Allen Hamilton
- CACI
- CAE USA
- Collins Aerospace
- Flight Safety Services
- General Dynamics Information Technology
- Huntington Ingalls Industries
- Lockheed Martin
- Northrop Grumman
- SAIC
- Trusted Readiness Solutions JV
- TRU Simulation + Training
- Veraxx Engineering
- Vertex Aerospace



QUESTION

Program Requirements

The C-17TS Sustainment contract will provide aircrew instruction (ATS only), courseware, ATS & MTS CLS, concurrency and obsolescence modifications, and training flights to produce certified aircrew members. CLS on ATs also will include supporting the simulators in a networked DMO environment. This contract will also include ATS instruction of C-17 foreign partners on USAF devices. This task order may include the same services for Foreign Military Sales (FMS) case countries. Cybersecurity Risk Management Framework (RMF) requirements will apply.

ACQUISITION STRATEGY

PENDING ASP
Undecided

PERIOD OF PERFORMANCE

10 year Period of Performance
End Date: August 2034

MILESTONES

RFI	RFP	Award
		
Released	Sep 23	Apr 24

POINT OF CONTACT

Program Manager: Zachary McClellan
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PCO: Rabbanai Tebah
Email: rabbanai.tebah@us.af.mil

FUNDING

Firm-Fixed-Price Contract and
Cost Reimbursable CLINs

CURRENT CONTRACTOR

The Boeing Company (Boeing)

Program Requirements

This is a Contractor Owned, Contractor Operated Contract. It provides the training, scheduling, and distributed mission operation services necessary to ensure interoperability and interconnectivity of participant systems in accordance with the Joint Special Access Program Implementation Guide (JSIG). There are 107 portals supported worldwide, CAF DMO will be adding 11 additional sites which includes three (3) JSE sites (Nellis, Edwards and Pax River). The core functions of the contract are to provide Networking, Distributed Training Center Support (CAF DTC, VTTC); Interoperability and Integration as well as Cyber Security. The requirements are: Network Availability Rate Threshold of 99.7% and Latency threshold of <65 milliseconds with an objective of <10 milliseconds.

ACQUISITION STRATEGY

Full & Open, FAR Part 15
IDIQ Contract

PERIOD OF PERFORMANCE

Jun 24 – Jun 34
5-year base with five 1-year options

MILESTONES

RFI	RFP	Award
▲	▲	▲
Released	Sep 23	Jun 24

POINT OF CONTACT

Program Manager: Nathan Stevens
Email: Nathan.stevens@us.af.mil
PCO: Kendall Holmes
Email: kendall.holmes.2@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price/Cost Plus

CURRENT CONTRACTOR

Northrop Grumman

Program Requirements

The Airborne Warning and Control System (AWACS) Diminishing manufacturing sources Replacement of Avionics for Global Operations and Navigation (DRAGON) Flight Crew Training System (FCTS) contract will provide CLS and TSSC support to three sims at Tinker AFB, OK. CLS and TSSC support consist of ensuring the training system is operational/available at 98%, maintaining multi-airfield VDB, configuration/data management, potential concurrency and obsolescence modifications, possibly establishing connection to the DMON, and may include drawdown or retirement; DMON and drawdown requirements still tbd.

ACQUISITION STRATEGY

PENDING ASP
Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

1 year base
5x 1-year options
End date: July 2030

MILESTONES

Draft FOPR	FOPR	Award
▲	▲	▲
Sep 23	Nov 23	May 24

POINT OF CONTACT

Program Manager: Capt William Sousa
Email: william.sousa@spaceforce.mil
PCO: Diane Chen
Email: Diane.chen@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price w/ Cost
Reimbursable

CURRENT CONTRACTOR

CAE

B-52 Legacy Training Systems Sustainment CLS/TSSC

Program Requirements

The Awardee will be tasked with providing CLS and TSSC sustainment services to the legacy B-52 Weapon System Trainer (WST). There will be no upgrades or updates made to the WSTs. The Awardee will also not be required to keep any developmental trainer in a ready state. Additionally, there will not be a requirement to support Distributed Mission Operations (DMO) related environments.

ACQUISITION STRATEGY

PENDING ASP
Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

TBD – Acquisition Planning
Underway

MILESTONES

RFI	FOPR	Award
		
Nov 23	Apr 24	Oct 24

POINT OF CONTACT

Program Manager: Michael Salyer
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PCO: Curtis Carson
Email: curtis.carson.2@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price

CURRENT CONTRACTOR

ATC

Program Requirements

T-6 GBTS functions as an integrated part of the USAF Undergraduate Primary Pilot Training, Undergraduate Student Naval Pilot Training, Specialized Undergraduate Pilot Training, USAF Undergraduate Navigator Training, Euro-NATO Joint Jet Pilot Training, and Undergraduate Naval Flight Officer Training programs. The program provide entry-level training to USAF, USN, USMC and USCG student pilots; provide primary & intermediate training to USN Student Naval Flight Officers and basic understanding of airmanship to entry level USAF student navigators. There are 126 total devices across 9 distinct locations. The contractor will provide Maintenance and Logistics Support, TSSC, CLS, Computer Aided Instruction; Config Management, Program Management, Systems Engineering and Cyber Security

ACQUISITION STRATEGY

PENDING ASP

Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

TBD – Acquisition Planning
Underway

MILESTONES



POINT OF CONTACT

Program Manager: Sara Beth Frye
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PCO: Pamela Randall
Email: pamela.randall.1@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price

CURRENT CONTRACTOR

Delaware Resource Group (DRG)

Program Requirements

The C-5 Aircrew Training System consists of 7 Weapon System Trainers at 4 locations and 2 cargo loading systems trainers at JBSA (Lackland). The C-5 Maintenance and Aircrew Training System (MATS) consists of 34 Maintenance Training Devices (MTDs) and 3 Aerial Refueling Part-Task Trainers (ARPTT) at 3 locations. The intent is to combine the ATS and MATS contracts to one. The using organizations are AMC, AETC, USAFE, PACAF AND AFRC. The requirements are: ATS at a 98% availability, Guaranteed Student Graduation and MTDs at a 98% availability.

ACQUISITION STRATEGY

PENDING ASP

Competitive Fair Opportunity Selection using TSA IV

PERIOD OF PERFORMANCE

TBD – Acquisition Planning Underway

MILESTONES

RFI

FOPR

Award



Nov 23



May 24



Oct 25

POINT OF CONTACT

Program Manager: Jaime Smith
Email: Jaime.smith.13@us.af.mil
PCO: Andre White
Email: Andre.white.7@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price / Cost Reimbursable

CURRENT CONTRACTOR

ATS: CymSTAR LLC
MATS: CTE - JV

Air National Guard Operational Training Support



Program Requirements

Provide DMO Operations Support for Mission Planning, Manned-Constructive White Force, Technology Support, Scheduling, and Establish & Maintain Secure Accredited Networks for daily DMO. The main customer is the Air National Guard at the Distributed Training Center in Des Moines, IA. The supported MAJCOMS are: ANG, AFRC, AFSCO, ACC, AMC, AECT, AFGSC and Coalitions.

ACQUISITION STRATEGY

PENDING ASP

Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

May 25 – Aug 30
Three Month Transition Period
1 base year with Four 1-year options

MILESTONES

RFI

▲
Jul 23

FOPR

▲
Jul 24

Award

▲
Mar 25

POINT OF CONTACT

Program Manager: 2LT Lathan Spadafora
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PCO: Kari Wedemeyer
Email: kari.wedemeyer@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price/Cost-
Reimbursable

CURRENT CONTRACTOR

HII MDIS, Inc.

Program Requirements

The Airborne Warning and Control System (AWACS) Maintenance Training System (MTS) provides support training for AETC and 552 ACW Maintenance Personnel. There are twenty-three field and mobile training devices at Tinker AFB, OK. The contractor will provide continued logistic support to manage, maintain, update and operate the training systems. Contractor will provide CLS and TSSC support consist of ensuring the training system is operational/available at 95.

ACQUISITION STRATEGY

PENDING ASP

Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

TBD
End date: July 2030

MILESTONES

RFI	FOPR	Award
		
Jun 24	Aug 24	Oct 25

POINT OF CONTACT

Program Manager: Maj Anthony Maxie
Email: anthony.maxie.1@us.af.mil
PCO: Diane Chen
Email: diane.chen@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price w/ Cost
Reimbursable

CURRENT CONTRACTOR

Fidelity Technologies, Inc.

Program Requirements

AFSOC ACTS (Air Force Special Operations Command Air Commando Training Systems) contract enables aircrews to train in simulated but realistic, complex scenarios and exercises to enhance operational readiness. providing excellence in training aids, devices, simulators, and simulations in live, virtual, constructive media, and Air Force Distributed Mission Operations to produce high-quality combat ready professional military aviators across 5 distinct Mission Design Series. Key objectives include: TSSC, CLS, Cybersecurity, DMO and ECPs. There are 10 locations with various devices.

ACQUISITION STRATEGY

PENDING ASP
Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

TBD – Acquisition Planning
Underway

MILESTONES

RFI	FOPR	Award
		
May 24	Nov 24	Oct 25

POINT OF CONTACT

Program Manager: Stanley Cadell
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PCO: John Lindsay
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FUNDING

\$ TBD
Firm Fixed Price

CURRENT CONTRACTOR

Lockheed Martin Corporation

Program Requirements

The B-1 Training System (TS) provides concurrent training devices for B-1 aircrews and maintainers. On-site and on-call CLS is provided at 3 main operating locations. The program consists of 20 Maintenance Training Devices (MTDs) and 5 Cockpit Procedure Trainers (CPT), 2 Egress Trainers, 3 Armaments Systems Trainers and 5 Weapon Systems Trainers (WST). The using organization are AFGSC and AETC. The Contractor will provide continuing CLS and change management for concurrency and trainer-unique Reliability and Maintainability changes. The requirements are 97% availability for ATDs and on-call repair in 2 days for MTDs

ACQUISITION STRATEGY

PENDING ASP

Competitive Fair Opportunity
Selection using TSA IV

PERIOD OF PERFORMANCE

TBD – Acquisition Planning
Underway

MILESTONES



POINT OF CONTACT

Program Manager: Matthew Long
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PCO: Curtis Carson
Email: curtis.carson.2@us.af.mil

FUNDING

\$ TBD
Firm Fixed Price

CURRENT CONTRACTOR

Aero Simulation, Inc.

- **ATSP JV - Applied Visual Technologies Simulation; C2Technologies**
- **CTE II JV – Carley Corporation; Engineering Support Personnel Inc.**
- **Falconry Training Solutions JV – Alpha-1 Aerospace LLC; Pathfinder Systems, Inc.; SimiGon, Inc.**
- **ITS LLC JV – ProActive Technologies, Inc.; System Studies & Simulation, Inc.; The ASTA Group LLC**
- **Phoenix Defense Ventures LLC JV – Phoenix Logistics, Inc.; Riptide Software, Inc.**
- **PTC Solutions JV – Potawatomi Training, LLC (mentor); CAE USA Mission Solutions, Inc (protégé)**
- **Spirit Simulation, Inc. JV – DynaLantic Corp.; Shen Te Enterprises, Inc.; SA Technical Services, Inc.**

NTSA TSA IV Joint Ventures - Large



- **AXR Solutions JV – Cole Engineering Services; Specular Theory**
- **Azure Training Systems JV – FAAC Inc; The DiSTI Corporation; PULAU Corporation**
- **Trusted Readiness Solutions JV – Crew Training International, Inc.; PLEXSYS Interface Products, Inc.**

