USAF Automatic Test Systems (ATS) Program Office

NDIA Update
16 Sep 18

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Automatic Test Systems (ATS) Agenda

- Org Structure
- Overview
- ATS Site Picture
- Family of Testers Update
- Initiatives on the Horizon
- Cybersecurity
• Product Group Manager (PGM) for ATS

• ATS Program Office executed $130M in FY17 - DoD
  – Multiple funding sources/funding types

• By the Numbers
  – Personnel – 130 (Robins & Hill AFBs)
  – 4 Product Lines, 51 Programs/Groups (7,775 Configured Items)
    – Organizational Level (Flightline)
    – Intermediate Level (Backshop)
    – Depot Level (ALCs)
    – Test Measurement & Diagnostics Equipment (TMDE)
  – Five AML (ACAT III) Programs
  – Tech Orders – 12K
  – ATS Selection Requirements Analysis – 25/year

• Major Acquisition/Mod Programs
  – Bomber Armament Tester (BAT)*
  – Common Aircraft Portable Reprogramming Equipment Secure Memory Loader Verifier (CAPRE SMLV)*
  – Versatile Diagnostic Automatic Test Station (VDATS)*
  – B-1B Advanced Radar/Electronic Warfare Test Station (ARTS)*
  – A-10 Portable Automated Test Station (PATS-70)*
  – Joint Service Electronic Combat Systems Tester (JSE CST)

* AML Program

No mission success without ATS!
DoD AF Family of Testers (FoT)

- **Joint Service Electronic Combat System Tester (JSECST) - Textron**
  - 2 configurations: AN/USM-670 and AN/USM-670A
    - Initial Fielding: 2001 (AN/USM-670) and 2016 (AN/USM-670A)
  - Assets: 600+ DoD, 200 Air Force
  - Production of 670A testers: 57; Retrofit kits: 170 delivered to date
  - CCB approval for retrofit kit installation completed Nov 16
  - Robins AFB Depot kit installed: 20 retrofits to date
  - Repair contract (2 yrs) awarded 7 May 18
  - New production contract in work: EAD – Sep 18
DoD AF Family of Testers (FoT)

- Versatile Diagnostic Automatic Test Station (VDATS®)
  - **VDATS® Core Configurations**: DA-1 and DA-2
  - **VDATS® Production Deliveries**:
    - 122 VDATS produced to date; 5 DA stations in manufacturing for upcoming new requirements
  - **VDATS® Customers**: AF Depots (Robins ALC, Tinker ALC and Ogden ALC), Tobyhanna Army Depot, BAE, NGC, Harris, USN and currently one intermediate level location
  - Approximately 2,000+ TPSs developed & approved for use on VDATS® to date
  - VDATS® currently supports over 30 weapon system workloads for numerous aircraft platforms
  - Recent Program Activity
    - Accepted new orders from B-52 and B-1 Program Offices
DoD AF Family of Testers (FoT)

- **Common Benchtop Automatic Test Systems (CBATS)**
  - PXI based systems with 2 configurations
    - 101: (70) deployed at Hill AFB and Kadena AFB
    - 201: (66) deployed at Hill AFB, Kadena AFB, and Robins AFB
      - CBATS DXR Roll-up – In use at Ogden ALC
  - Currently on hold for FoT referral
    - Need to improve sustainability
    - Infrastructure must be in place
ATS Portfolio
AF Family of Testers (FoT)

- **Advanced Radar/Electronic Warfare Test Station (ARTS) - Textron**
  - 5 years ICS – slipped to FY19
  - 20 of 24 total systems delivered to the field
  - TPS development ongoing
    - 2 of 24 TPSs fielded

- **Bomber Armament Tester (BAT) - BAE Systems**
  - O-Level Testers/I-Level Testers
  - Supports B-2/B-1/B-52; decrease number of testers for each platform
  - Contract awarded Sep 17
    - System Requirements Review – Mar 18
    - System Functional Review – Jun 18
    - Core Tester PDR – Sep 18
    - TPS PDR – Oct 18
    - Core Tester CDR – Nov 18
    - TPS CDR – Dec 18
• **Common Aircraft Portable Reprogramming Equipment (CAPRE)**
  - 30 weapon systems supported
  - Potential users: CRH, KC-10, C-130J
  **CAPRE Secure Memory Loader Verifier (SMLV) - ACAT III**
  - Initiated to enhance cybersecurity
  - Rehost F-16 MLV requirements in work
  - Field refurbished hardware starting in 2021

• **Common Munitions BIT Reprogramming Equipment (CMBRE) – Northrop Grumman**
  - 600+ CMBRE unit fielded supporting 18+ weapon systems
  - Organic CMBRE Service Life Extension Program (SLEP) - ongoing development to address obsolescence
  - SLEP to field in phased approach starting in 2022
ATS Future Initiatives (RFP)

- Analysis for Common Armament Tester - Fighter (CAT-F) - Competitive
- JSECST Production - Sole Source, Textron Systems
- Control Test Set Sustainment (A-10) - Sole Source, Command Technical Services Inc. (CTSI)
- B-1B DAAE Repair - Sole Source, Harris Corporation
- B-1B ARTS ICS - Sole Source, Textron Systems
- Electrical Electronic Equipment Test Station (EETS) - Competitive
- PLM-4 Strategic Buy/Repair Contract - Sole Source, Harris Corporation
- CMBRE Production Contract - Sole Source, Northrop Grumman
- B-1B Advanced Digital Test Station (ADTS) - Competitive
- B-1B Enhanced Power Control Assembly Tester (EPCAT) - Sole Source, Teradyne
- CMBRE SLEP Production/ICS - Competitive
- ATS Product Support Requirements Contract - BAE Systems
Cyber Security Purity (CSP)

- What assurance do I have when I open the “box” that the instrument is free of malware?
- Would like industry to collaborate on a set of standards “1.0” to provide assurance of initial purity
- CSP standard will give all users assurance that the instruments used start operations free of malware

Must be VIRUS FREE at the instrument level to ensure purity of ATS
ATS PGM Updates

- Agile Combat Support (ACS) Leadership
  - PEO: Col Bradley Hauboldt
  - Deputy PEO: Col James Moore

- ATS Leadership
  - ATS Program Office Chief: Mr. Jimmy Bailey
  - Incoming ATS Deputy Chief: Lt Col Lance Strickland
  - ATS Deputy Chief, Nuclear: Mr. David Hand
Questions ???
NDIA ATC
USAF Liaison Report
16 Sep 2018
AF Budget

2019

- Air Force budget request for FY 2019 is approximately $156.3 billion dollars, a 6.6% overall increase from the FY 2018 request.\textsuperscript{1,2}

- Baseline budget increases funding for two largest readiness accounts, funding nearly 1.2 million peacetime flying hours and resourcing Weapon System Sustainment (WSS) \textsuperscript{1}

- FY 2019 RDT&E budget invests heavily in innovative technologies ... focuses on hypersonics, directed energy, unmanned autonomous artificial intelligence and machine learning systems, and nanotechnology.\textsuperscript{1}

\textsuperscript{1) https://www.saffm.hq.af.mil/FM-Resources/Budget/}
AF News

Alignment on Space Force Plan
- The Pentagon will lay out its plan for creating a Space Force in the Fiscal 2020 budget request, with full support from the Air Force Wilson (Sec USAF), said there is “complete alignment” between her and the President… there is bipartisan support behind the creation of a separate service for space, or at least a separate combatant command for the domain

KC-46 STC
- FAA has granted Boeing’s KC-46 tanker program a Supplemental Type Certificate (STC), verifying that its refueling and mission avionics systems meet FAA requirements. The milestone marks completion of KC-46 FAA certification.
- Boeing is currently on contract for the first 34 of an expected 179 tankers for the U.S. Air Force.
- 10 September: Boeing secure a $2.9 billion contract for the fourth lot of KC-46 tankers, raising the total to 52 aircraft on order. The award covers the production of 18 KC-46s and other associated gear like spare engines and parts, support equipment and wing air refueling pod kits.

Future Force Structure Forthcoming
- The Air Force will unveil the results of a nine-month review of its squadron structure in the face of growing great power competition per Secretary Heather Wilson. USAF has used wargames, simulation, and modelling to determine its needed force structure and will outline its requirements and goals during keynote addresses at AFA’s Air, Space & Cyber Conference on Sept. 17-19.

Future Light Attack Moving Forward
- Presolicitation for the Light Attack program was released. The final solicitation is due 4Q FY19. The estimated quantities range form as few as 20 to as many as 300. It’s likely USAF won’t know how many light attack planes to buy foreign interest can be determined.

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5) http://go.afa.org/e/285922/-17-air-space-cyber-conference/3lk2nx/321709465