USAF Automatic Test Systems (ATS) Program Office

NDIA Update
16 Sep 18

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AFPEO/ACS, Automatic Test Systems (AFLCMC/WNA)
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Jimmy.Bailey@us.af.mil

- Org Structure

- Overview

- ATS Site Picture

- Family of Testers Update

- Initiatives on the Horizon

- Cybersecurity

AFLCMC Leadership Team

SAE
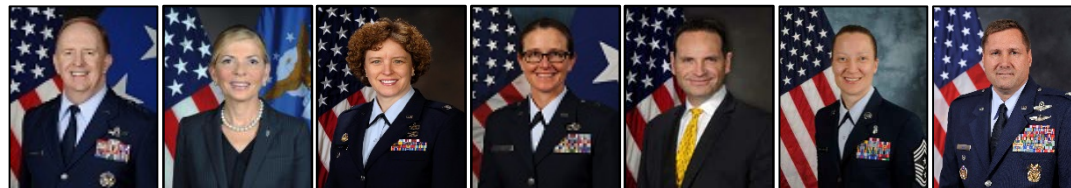
Programmatic Direction

Enterprise Management

CA   CV   CR   DS   CCC   CG

PEOs

- Agile Combat Support
- Battle Mgmt
- Business & Enterprise
- C3I / Networks
- Fighter / Bomber
- ISR/SOF
- Mobility
- Tanker
- Weapons
- Presidential Airlift Recap

Directorates & Support

- AFSAC
- Propulsion
- Acquisition
- Contracting
- Engineering
- Finance
- Inspector General
- Intel
- Logistics
- Personnel
- Plans and Programs
- Prog Dev & Integration
- Safety
- Small Business
- Staff Judge Advocate
- 88 ABW
- 66 ABG

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Agile Combat Support Directorate

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CMSgt Jonathan Redfern
Chief Enlisted Manager

Colonel James Moore
Deputy Director

Colonel Brady Hauboldt
PEO/Director

Colonel Bernard Willis
Director's Senior IMA

Mr. Neil Erno
Chief, AFMETCAL

Mr. Jimmy Bailey
Chief, Auto Test Sys

Colonel James Wilson
Chief, EW & AV

Mr. Emilio Varcarcel
Chief, Human Systems

Colonel Philip Carpenter
Chief, Simulators

Colonel Michael Brox
Chief, Spt Equip/Veh

Mr. Thomas Shaffer
Chief , Contracting –
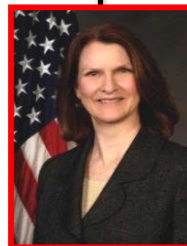WPAFB

Mr. Marty Ledden
Chief , Contracting –
Robins AFB

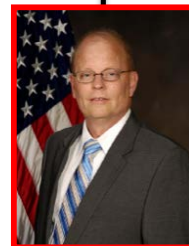Ms Lynne Leftwich
Chief, Financial
Management

Ms. Jacqueline
Janning-Lask
Director of Engineering

Ms. Robin Mosley
Chief, Logistics

Ms. JoAnn Freburg
Chief, Management
Operations

Mr. Dennis Deitner
Chief, Portfolio
Analysis

Mr. Ron Hannan
Chief, Security

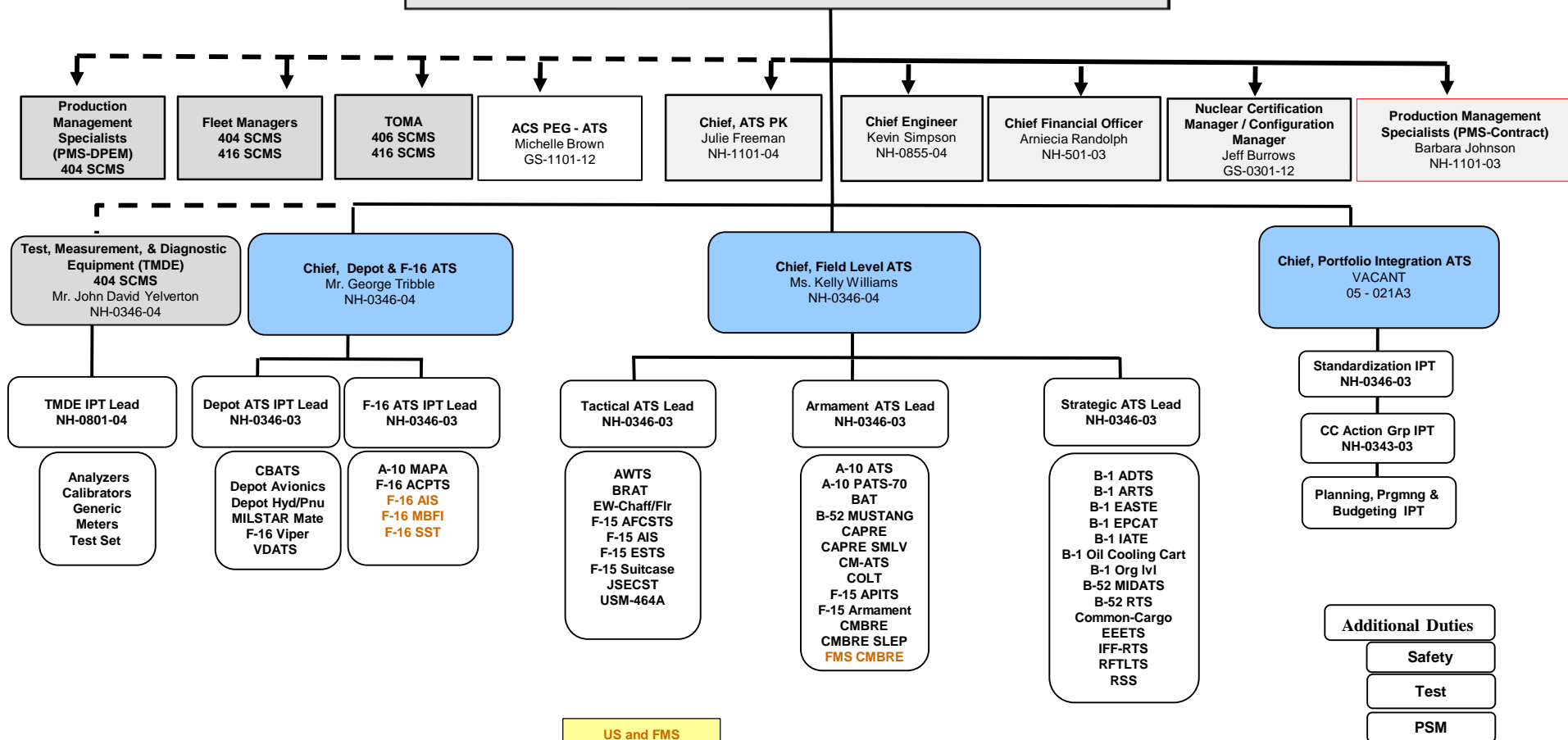Mr. Steven Peden
Chief, FMS

Revised: 20 July 2018

AFLCMC/WNA Operational Organization Chart

AFLCMC… Providing the Warfighter's Edge

U.S. AIR FORCE

As of 6 Aug 2018

CHIEF: JIMMY C. BAILEY (NH-0346-04)
DEPUTY CHIEF: *Incoming* **Lt Col Lance Strickland** (05 - 063A4)
DEPUTY CHIEF, AFNWC EMBED: DAVID HAND (NH-1101-04)

| Production Management Specialists (PMS-DPEM) 404 SCMS | Fleet Managers 404 SCMS 416 SCMS | TOMA 406 SCMS 416 SCMS | ACS PEG - ATS Michelle Brown GS-1101-12 | Chief, ATS PK Julie Freeman NH-1101-04 | Chief Engineer Kevin Simpson NH-0855-04 | Chief Financial Officer Arniecia Randolph NH-501-03 | Nuclear Certification Manager / Configuration Manager Jeff Burrows GS-0301-12 | Production Management Specialists (PMS-Contract) Barbara Johnson NH-1101-03 |

Test, Measurement, & Diagnostic Equipment (TMDE) 404 SCMS
Mr. John David Yelverton
NH-0346-04

Chief, Depot & F-16 ATS
Mr. George Tribble
NH-0346-04

Chief, Field Level ATS
Ms. Kelly Williams
NH-0346-04

Chief, Portfolio Integration ATS
VACANT
05 - 021A3

TMDE IPT Lead
NH-0801-04

Analyzers
Calibrators
Generic
Meters
Test Set

Depot ATS IPT Lead
NH-0346-03

CBATS
Depot Avionics
Depot Hyd/Pnu
MILSTAR Mate
F-16 Viper
VDATS

F-16 ATS IPT Lead
NH-0346-03

A-10 MAPA
F-16 ACPTS
F-16 AIS
F-16 MBFI
F-16 SST

Tactical ATS Lead
NH-0346-03

AWTS
BRAT
EW-Chaff/Flr
F-15 AFCSTS
F-15 AIS
F-15 ESTS
F-15 Suitcase
JSECST
USM-464A

Armament ATS Lead
NH-0346-03

A-10 ATS
A-10 PATS-70
BAT
B-52 MUSTANG
CAPRE
CAPRE SMLV
CM-ATS
COLT
F-15 APITS
F-15 Armament
CMBRE
CMBRE SLEP
FMS CMBRE

Strategic ATS Lead
NH-0346-03

B-1 ADTS
B-1 ARTS
B-1 EASTE
B-1 EPCAT
B-1 IATE
B-1 Oil Cooling Cart
B-1 Org lvl
B-52 MIDATS
B-52 RTS
Common-Cargo
EEETS
IFF-RTS
RFTLTS
RSS

Standardization IPT
NH-0346-03

CC Action Grp IPT
NH-0343-03

Planning, Prgmng & Budgeting IPT

Additional Duties

Safety

Test

PSM

US and FMS

IPTs Supporting 7,775 Configured Items

Automatic Test Systems Site Picture

- **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 (JSECST)**
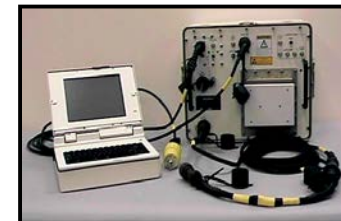

Versatile Diagnostic Automatic Test Station

Benchtop Reconfigurable Automatic Tester

Cruise Missile Radar Altimeter Test Assembly

Common Munitions Bit Reprogramming Equipment

Joint Service Electronic Combat Systems Tester

Common Aircraft Portable Reprogramming Equipment

Identify Friend or Foe

Common Organizational Level Tester

* AML Program

No mission success without ATS!

DoD AF Family of Testers (FoT)

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- **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

JSECST

- **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

VDATS

DA-2   RF-1

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- **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

CBATS **201**

CBATS **101**

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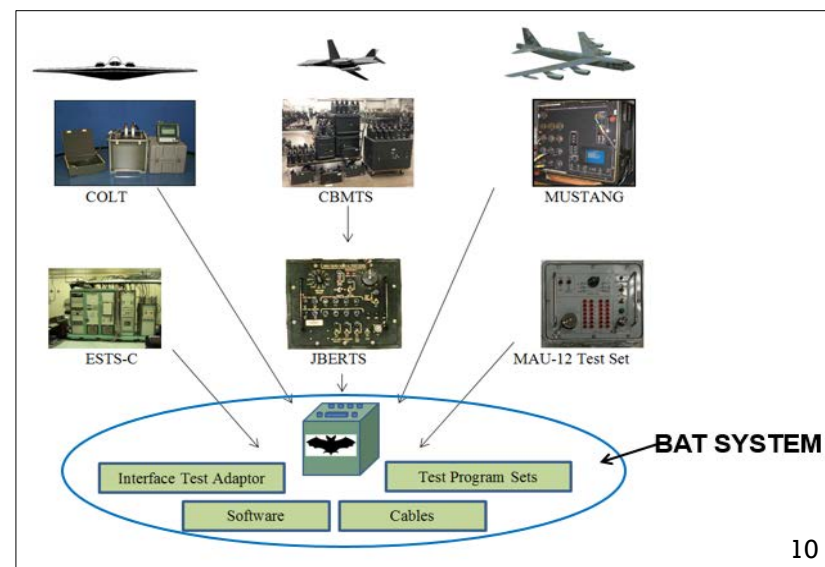
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ARTS

- **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
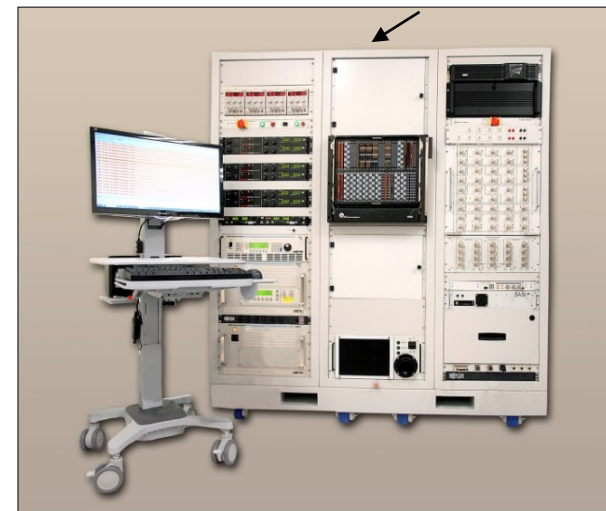
- **Bomber Armament Tester (BAT) - BAE Systems**
  - O-Level Testers/I-Level Testers
  - Supports B-2/B-1/B-52; decrease number of testers for each platform
  - Contract awarded Sep 17
    - System Requirements Review – Mar 18
    - System Functional Review – Jun 18
    - Core Tester PDR – Sep 18
    - TPS PDR – Oct 18
    - Core Tester CDR – Nov 18
    - TPS CDR – Dec 18

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- **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
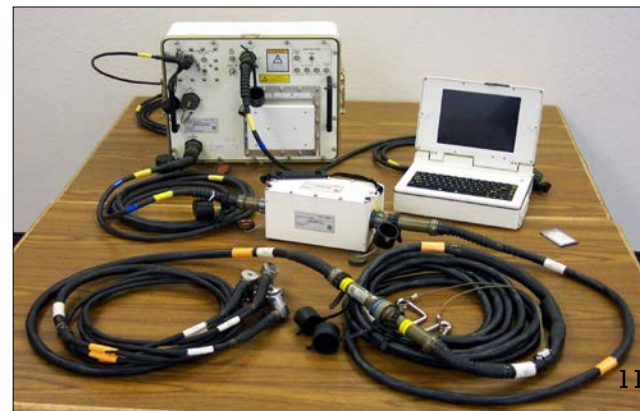 - Field refurbished hardware starting in 2021

CAPRE

- **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

CMBRE

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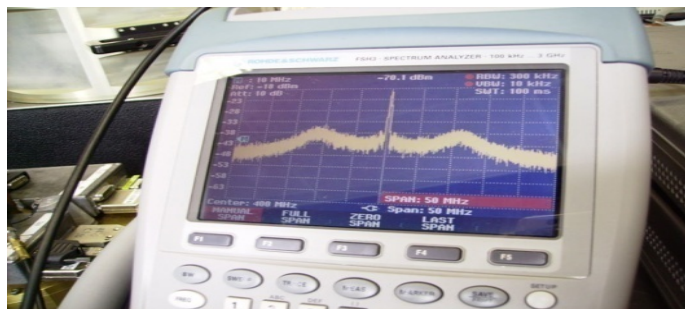
Must be VIRUS FREE at the instrument level to ensure purity of ATS

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**

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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.**[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)** [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**[1]

1) https://www.saffm.hq.af.mil/FM-Resources/Budget/
2) https://www.af.mil/News/Article-Display/Article/1439114/air-force-fiscal-year-2019-budget-addresses-great-power-competition/

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[3]

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 contact 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. [4]

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. [5]

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. [6,7]

3) https://spacenews.com/new-pentagon-memo-lays-out-action-plan-to-establish-space-force-by-2020/
4) https://www.defensenews.com/air/2018/05/04/boeing-pushes-back-on-its-bad-reputation-on-kc-46-tanker-program/
5) http://go.afa.org/e/285922/-17-air-space-cyber-conference/3lk2nx/321709465
6) http://www.airforcemag.com/Features/Pages/2018/August%202018/USAF-Moving-Forward-on-Light-Attack-with-Solicitation-Notice.aspx
7) http://www.thedrive.com/the-war-zone/23075/the-air-force-says-it-might-only-buy-20-light-attack-aircraft-in-the-end