

AF Life Cycle Management Center



Overall Briefing Classification:
UNCLASSIFIED

Bombers Directorate Life Cycle Industry Days 2 – 5 August 2021

**JOHN P. NEWBERRY, Brig Gen, USAF
AF Program Execution Officer for
Bombers**

Providing the Warfighter's Edge



UNCLASSIFIED



Bombers Portfolio

U.S. AIR FORCE

AFLCMC... Providing the Warfighter's Edge

Bombers Directorate / B-2 SPO
(Wright-Patterson AFB)**

**5th Bomb Wg
(Minot AFB)**

**28th Bomb Wg
(Ellsworth AFB)**

**509th Bomb Wg
(Whiteman AFB)**

**B-1
45 Aircraft
2 Configs**



**B-2
20 Aircraft
3 Configs**



**B-52
76 Aircraft
6 Configs**



**B-21
*OTE Only**



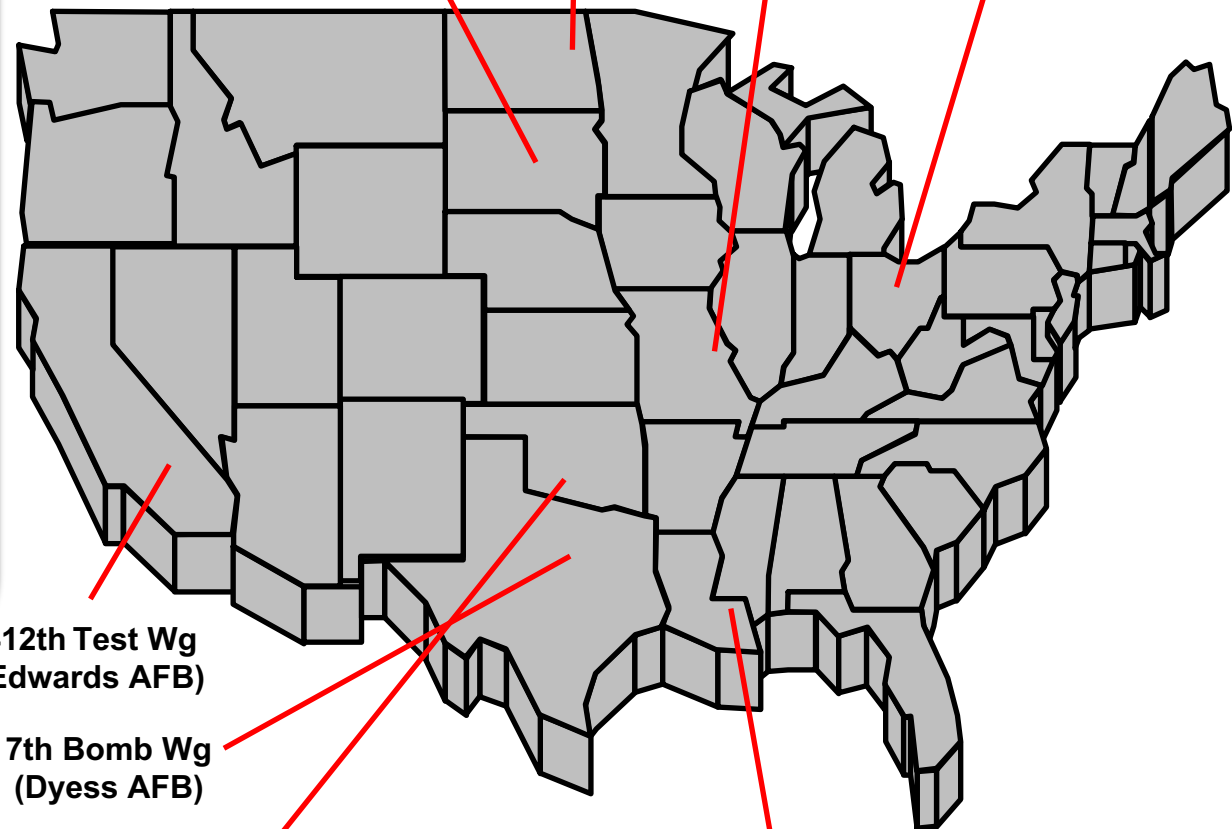
141 Bombers, 11 Configs

**412th Test Wg
(Edwards AFB)**

**7th Bomb Wg
(Dyess AFB)**

B-1 / B-52 SPOs (Tinker AFB)**

AFGSC HQ / 2nd Bomb Wg (Barksdale AFB)



****Located at both Tinker and WPAFB**

**ACAT I – 2
ACAT II – 5
ACAT III – 31
Section 804 – 1**



Bombers Highlights

U.S. AIR FORCE

AFLCMC... Providing the Warfighter's Edge

B-1 Lancer

- B-1 is a highly versatile, multi-mission weapon system
- Aircraft availability significantly improved
- Communication / nav upgrades underway
- AF pursuing retirement of 17 B-1 aircraft in FY21; 45 aircraft fleet will remain
- Future digital twin effort a revolutionary game changer for the B-1
 - Allows for proactive sustainment posture
 - Virtual “medical record” allows AF to be predictive vs reactive
 - Digital effort has already been used to prototype fleet inspections/repairs



B-2 Spirit

- Nation's flagship long-range strike arsenal
- Flexible strike capability
 - Air to surface bombs: MOP, JDAM, GBU-28, MK82, MK84
 - Non-nuclear missiles: JASSM, future JASSM-ER
 - Nuclear weapons: B61-7, B61-11, B83, future B61-12 capability
- Proven combat effectiveness – deter, assure, strike
- Modification programs: weapons, comms, aircraft systems, low observable improvements
- Sustainment: Hardware / software, aft deck, displays, & LRU F3 replacements



Bombers Highlights

U.S. AIR FORCE

AFLCMC... Providing the Warfighter's Edge



B-52 Stratofortress

- Undertaking largest modernization in aircraft history
- Unparalleled long range strike capability
 - Long range stand-off
 - Counter sea
 - Direct attack (~5-15nm from target)
 - Gravity bombing
 - Nuclear (dual mission capable)
 - Carries largest variety of weapons in the U.S. inventory
- Airframe service life until at least 2050; only combat a/c with 88 year service life in 2050

THE EDGE

The Edge - Innovation

- Newly established innovation cell for Bombers-quick-reaction capabilities
- Engaging AF and industry partners to leverage current/future innovation opportunities to support the warfighter



B-1 Lancer



- **Most contractual efforts with industry are performed by the OEM, Boeing**
- **The Program Office has awarded competitive contracts in the past and will continue to do so**
- **The Program Office is working FY18 New Starts, with no new competitively awarded work planned in the next 18-24 months**
 - **Comm/Nav modifications include Radio Crypto, MIDS-JTRS, and Mode 5/S**
 - **Boeing is lead integrator and developer with some hardware procured from other sources such as Collins, Honeywell, iGATM**
 - **Integrated Battle Station (IBS) modifications include CITS, VIDL, and VSDU**
 - **Modification were finished in FY20; depot activation in work**
- **The B-1 is postured for future hypersonics integration and test efforts**



B-2 Spirit



- **Business Opportunities with B-2 SPO:**
- **Adaptable Communication Suite (ACS)**
 - Provides SATCOM connectivity for command & control enroute to target
 - Airborne mission transfer, Beyond-Line-of-Site (BLOS) situational awareness
 - BLOS & voice comm upgrade to address obsolescence issues and obtain Mobile User Objective System capability: replaces PRC-117G/AN/ARC-234 radios
- **Low observable signature & supportability modifications**
 - Continuous improvement program designed to ensure B-2 stealth confidence and maintainability through lifecycle
 - Targets affordable, quick-to-field solutions to keep stealth viable, maintenance affordable; improves aircraft availability
- **B-2 trainers – Ensure 5 aircrew trainers & 53 maintenance trainers remain aligned with the B-2 fleet configuration**



B-2 Spirit



- **Business Opportunities with OEM (Northrop Grumman)**
- **Military GPS User Equipment (MGUE)**
 - Improved performance in GPS-denied environment
 - Integrated M-Code GPS with B-2 as threshold platform
- **Airspace Compliance (Identification Friend or Foe {IFF} Mode 5/S)**
 - Integrates and installs Mode 5/S capable (IFF) transponder
- **Crash Survivable Memory Unit (CSMU) & Flight Data Recorder Processor (FDRP)**
 - Replace obsolete and unsupportable CSMU & modify FDRP
- **Radar Aided Targeting System**
 - Software Update
 - Enhance B61-12 accuracy in GPS diminished environment
- **JASSM-Extended Range Integration – software only**
- **B-2 Display Modernization**
 - Replaces unsustainable cathode-ray-tube cockpit displays with LCD displays



UNCLASSIFIED

B-52 Stratofortress



Most Extensive Modernization Efforts in B-52's 60-yr History

AFLCMC... Providing the Warfighter's Edge

- **Most B-52 contractual efforts with industry are expected to be performed by the OEM, Boeing**
- **However, the SPO has awarded competitive contracts in the past and will continue to do so**
- **B-52 is working New Starts (FY16, 17, 18, and 19), with no new competitively awarded work planned during the next 18-24 months**
 - **Major modernization efforts include Commercial Engine Replacement Program, Radar Modernization Program, and Systems Integration**
 - **Boeing is the lead integrator for these efforts and others within the B-52 SPO**
 - **Additional RMP hardware is provided by L3Harris, Mason Electric Company, and ESCCO Corp; Systems Integration services and support providers include Anautics and SERCO**
 - **Expect RFP activity in 1st and 2nd quarter FY22 in support of systems integration – digital engineering initiatives**



The Edge - Innovation

U.S. AIR FORCE

AFLCMC... Providing the Warfighter's Edge

- **COCOMs/AFGSC driving new requirements**
- **The Edge is in position to transition technologies and use innovative approaches to field new capabilities quickly into Bomber aircraft**
- **Applying integrated approach with Strategic Partners:**
 - **AFGSC, AFMC, AFLCMC, AFSDPE, AFWERX, SBIR, RCO, RSO, Industry, Academia**
- **Broad Scope: Development—Production—Sustainment**
- **Setting ground work for future formal programs of record**
- **Immediate Focus: Rapid prototype using an Agile Pod to carry comm/nav urgent capabilities. Targeting quick-turn FY22**
- **Bombers Industry Day to follow on Friday, 6 Aug 2021, 0900-1600 (virtual)**
 - **Focus: Innovation/Development Needs**

