



F-15 Strategic Outlook

Providing the warfighters mission-ready F-15s



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Providing the warfighters mission-ready F-15s

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USAF/FMS Partner Collaboration



Providing the warfighters mission-ready F-15s

- **Continued push to modernize F-15E & EX fleet**
 - Planned modernization roadmap through 2028
 - Many opportunities for shared capability
- **Cost sharing improves roadmap executability**
 - Increases affordability
 - Increases opportunity to field more capability sooner
- **Production line stability into 2030s ensures retention of highly trained workforce**
- **USAF divestments provide strategic collaboration opportunities**



Modernization Overview

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Activities

- F-15EX: Delivering to refresh aging F-15C/D fleet
- Auto Ground Collision Avoidance System
- New electronic warfare system: In production/fielding
- New Data Transfer Module: Entering production/fielding
- New MUOS/SATURN: In production/fielding
- Improved ADCP II throughput
- APG-82 continued development
- New OFPs: Continuous Development and Integration

Challenges

- Convergence of Mods - impact to a/c availability
- Fleet Dynamics (Age, Mix, Configurations)
- Transition to agile software development
- Business strategies with industry partners

Potential Future Efforts

- Resilient Embedded GPS Inertial Navigation System
- Digital Engineering
- ARC-120 Radio Software Upgrade
- Multi-Function Processor upgrades



F-15EX Configuration Roadmap

Providing the warfighters mission-ready F-15s

Current Fleet Configuration

F-15C/D or F-15E

Included in F-15EX Baseline

Mission Systems

- ADCP II
- MIDS-JTRS Data Link
- PACS
- ARC-210 Gen 5 Radios

Advanced Cockpit

- NVIS Compatible Lighting
- 5%-95% Pilot Accommodation w/combat gear
- Advanced Cockpit Ejection Seat (ACES II)

Sensors/ Electronic Warfare

- AESA Radar [APG-82(V)1]
- Eagle Passive/Active Warning and Survivability System (EPAWSS)
- ALE-47

Weapons Air-to-Air

- AMRAM
- Sidewinder

Weapons Air-to-Ground

- JDAM, Laser JDAM
- Paveway II/III
- SDB I/II
- JASSM/-ER (Stations 5&8)

Aircraft Provisions

- ASQ-236
- SNIPER Targeting Pod (Sta 5A)/5 ▶
- LITENING Targeting Pod (Sta 5A)/5 ▶
- LANTIRN Nav Pod (Sta 5B)
- Conformal Fuel Tanks

Functionality Requires S9.2 OFP



Mission Systems

- Programmable Armament Control Set (PACS) – 170
- Mobile User Objective System (MUOS) (2 Gen Anti-Jam, Tactical UHF Radio Retrofit w/3x Gen 6 Radios)
- SATURN w/1x ARC 210 Gen 6
- Dual Embedded GPS/INS
- GPS Anti-Jam ▶
- DTM II & Digital Video Recorder

Fly-by-Wire Controls

- Disorientation Recovery Function (DRF)
- Integrated Structural Protection
- C/D/E Equivalent Flying Qualities

▶ New in Lot 2B (15+)

▶ Deferred to Lot 3

Advanced Cockpit

- Large Area Display (LAD)
- Low Profile HUD (LPHUD)
- Digital Joint Helmet-Mounted Cueing System (DJHMCS)
- Rear to Front Cockpit Operability

Digital Airframe

- Forward Center Fuselage Model Based Definition (MBD)
- Wing Full Scale Determinate Assembly (FSDA)
- Nose Barrel FSDA
- Forward Fuselage FSDA
- 20k Hours Economic Service Life

Sensors/ Electronic Warfare

- ALQ-128A – Mech Provisions Only
- ALE-58A (BOL-IR) Manual Provisions

Aircraft Provisions

- AN/AAQ-47(V)1 IRST (Sta 5)
- OMS High Speed Data Bus
- 1Gb Fiber (Lot 1 Only)
- ▶ Increasing up to 10Gb (Lot 2)

Weapons Air-to-Air

- Stations 1&9

Propulsion

- F110-GE-129E Engines



Sustainment Overview

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Activities

- 20 PDMs/yr designed and scheduled into WR-ALC
- 38 sustainment mods & fleet service contracts
- 6,000 engineering actions sppt'g 452 a/c, 12 bases
- Tech/log assists supporting FMS partners
- Focus AFSC/DLA supply chains on MICAP reduction
- Incorporation of EPAWSS modification into PDM

Challenges

- F-15E Structures (longeron replacement)
- Aircraft Availability / Parts Reliability
- Support Equipment Modernization
- F-15C/D Divestiture
- F-15E -220 engine divestment uncertainty

Potential Future Efforts

- F-15E rewire projects for trouble areas
- Digital materiel management
- Next Generation Ejection Seat Integration
- MUOS/SATURN modification in conjunction with PDM



Conclusion

Providing the warfighters mission-ready F-15s

- **Collaborate to find common solutions**
- **Sharing in development of common solutions improves affordability and increases capability for all who are involved**
- **Continued investment keeps industrial base of highly trained/skilled workforce stable**

Every Day Matters!



Questions, Comments, Feedback



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