



United States Air Force



Air Force Aerial Targets

October 2007

NDIA Brief

San Diego, CA



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Eglin AFB, FL



Overview



697 ARSS

- **Purpose**
- **System Description**
- **Organizational Structure**
- **Product Groups**
 - Full-scale Aerial Targets
 - Subscale Aerial Targets
- **Summary**



Purpose



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- **Provide “Presentations” of Realistic Threat Representative Systems (Aircraft and Cruise Missiles) in Support of the Following:**
 - **Lethality Testing Required for New or Improved Weapon Systems Prior to Production (10 USC 2366)**
 - **USAF Air-to-Air Weapon System Evaluation Program**
- **Validate Performance Of DoD Ground-to-Air and Air-to-Air Missiles and Aircraft Systems**
 - **Emulates Performance, Signatures and Countermeasures (Infrared and Electronic Attack)**



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System Description



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- **Aerial Target “Presentations” include:**
 - **The Target Itself**
 - **Target Control System**
 - **Gulf Range Drone Control System (GRDCS)**
 - **Launch, Recovery, Maintenance & Repair of Target**



Overview



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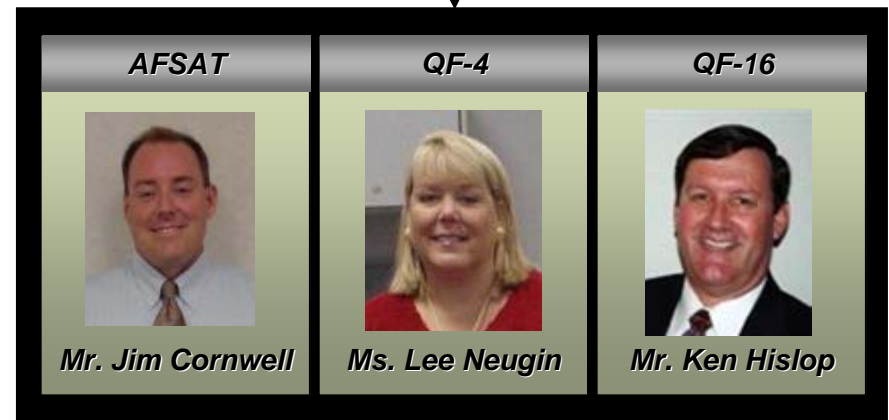
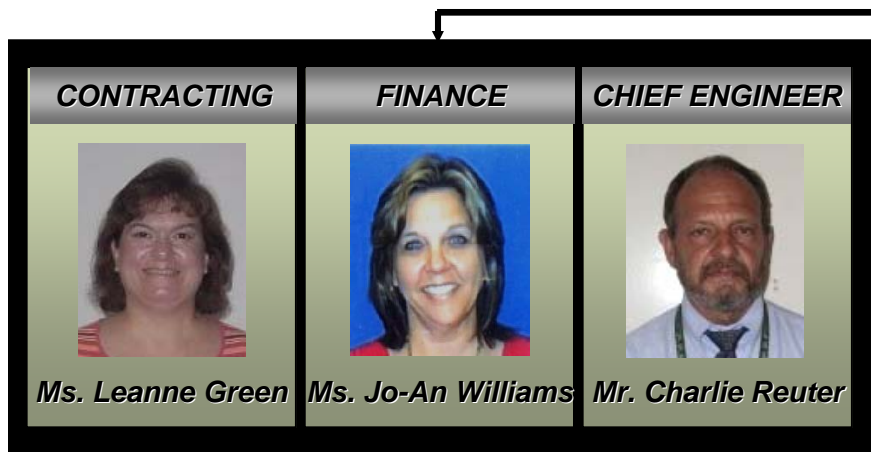
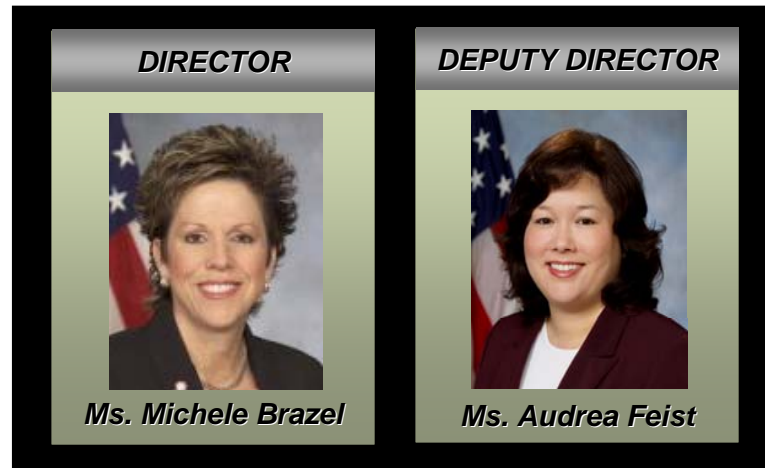
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691st Armament Systems Squadron



691 ARSSS



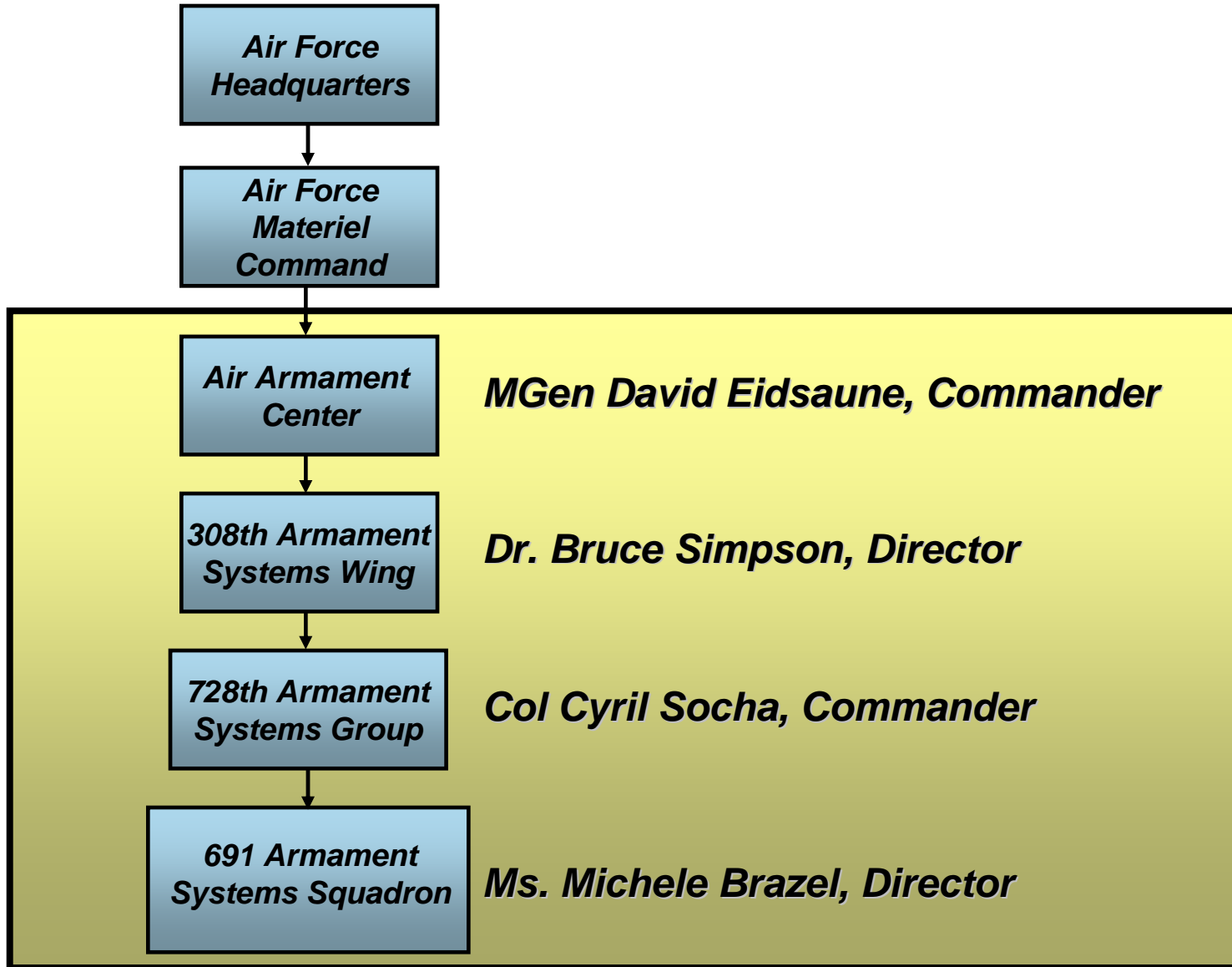
Develop, Procure and Sustain Aerial Targets and Related Systems



Where We Fit In



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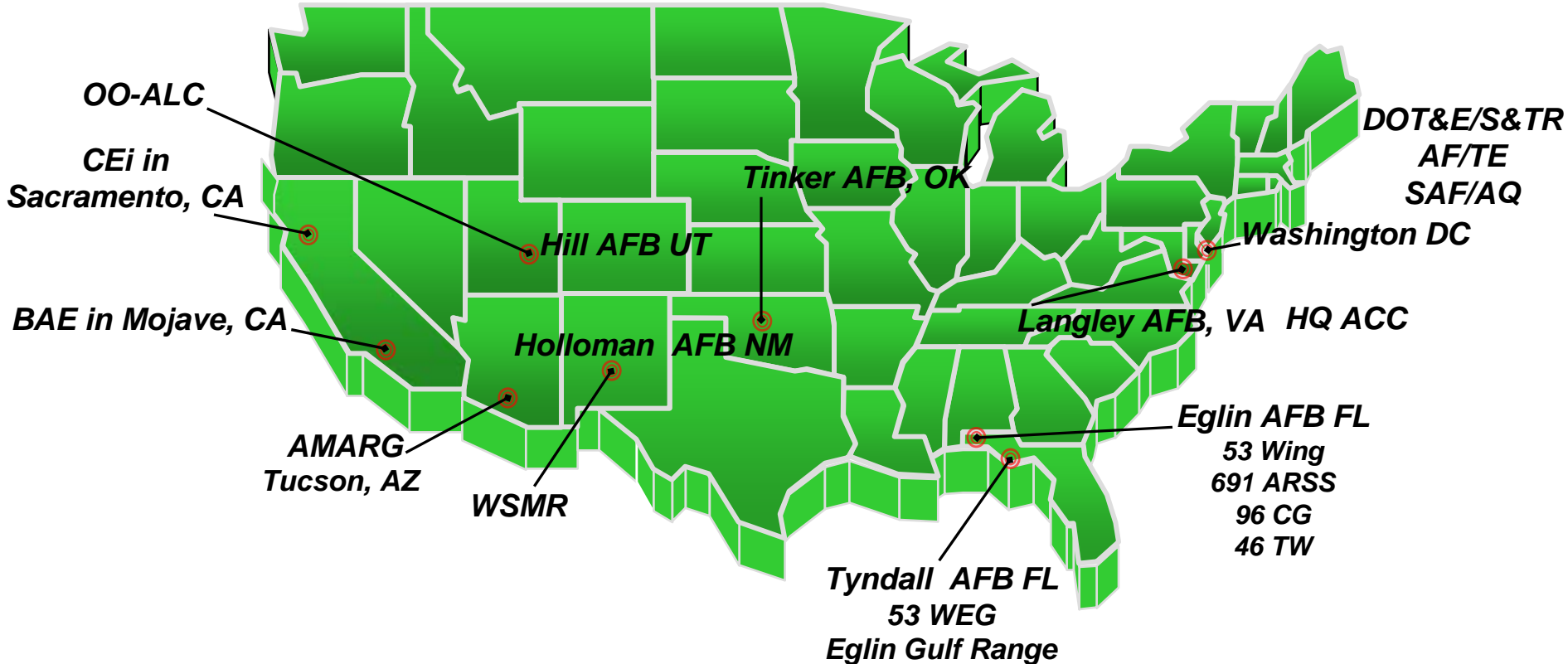




USAF Aerial Targets Stakeholders



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Click Middle of Screen to Start Movie



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QF-4 Full Scale Aerial Target

Program Manager: Ms. Lee A. Neugin

Description

- **Full Scale Aerial Target for Threat-Representative Weapon System Evaluation**
- **Meets USAF, Army, Navy, Allied Test Requirements**
- **Droned Refurbished F-4 Aircraft Out of AMARG**
- **Program in Full Rate Production**
- **Prime Contractor is BAE Systems, Mojave, CA**

Key Features

- **Satisfies Title 10 "Live Fire/Lethality"**
- **Operates via Ground-Based Target Control System**
- **Supersonic, High-G, Heavy Payload Capability**
- **Provides 3rd Generation Threat Representation**





QF-4 Master Schedule



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	FY05				FY06				FY07				FY08				FY09				FY10				FY11			
	O	J	A	J	O	J	A	J	O	J	A	J	O	J	A	J	O	J	A	J	O	J	A	J	O	J	A	J
Lot 11	▲ Dec 04				▲————▲				▲————▲				Deliveries: Aug 06– Aug 07															
Lot 12	▲ Feb 06								▲————▲				Deliveries: Aug 07– Jul 08															
Lot 13					▲ Mar 07								▲————▲				Deliveries: Aug 08- Jul 09											
Schedules shown above are based on actual contract schedules																												
Schedules below are planned schedules																												
Lot 14													▲ Jan 08				▲————▲				Deliveries: May 09- May 10							
Lot 15																	▲ Jan 09				▲————▲				Deliveries: May 10-May 11			



QF-4 2007 Accomplishments



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- **Completed Lot 11 and Began Lot 12 Deliveries**
 - **Total of 226 QF-4s Delivered to Date**
- **Conducting Government Ground Test of QRF-4C Model**
 - **Provides Three Additional Years Of Fullscale Capability**
 - **Projecting 17 Production Lots vice Current 15 Lots**
- **Supported 42 NULLO Test Missions in FY07**
 - **61 Missiles Fired**
 - **8 Kills**



The Future of QF-4



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- **Lots 14 – 17 Will Consist of RF-4C Models Only**
- **Last QF-4 Delivery Planned For FY13**
- **Sufficient Inventory through FY15**
 - **Assumes 16 – 20 QF-4 Kills Per Year**
 - **Bridges Ops Capability Until QF-16 Deliveries**



QF-16 Air Superiority Target

Program Manager: Mr. Ken Hislop

Description

- **Fullscale Target for Threat-Representative Weapon System Evaluation**
- **Meets USAF, Army, Navy, Allied Test Requirements**
- **Program in Pre-System Development and Demonstration Phase**
- **Droned Refurbished F-16 Aircraft**
- **Risk Reduction in Progress: Airframes, Engines & Target Control System**

Key Features

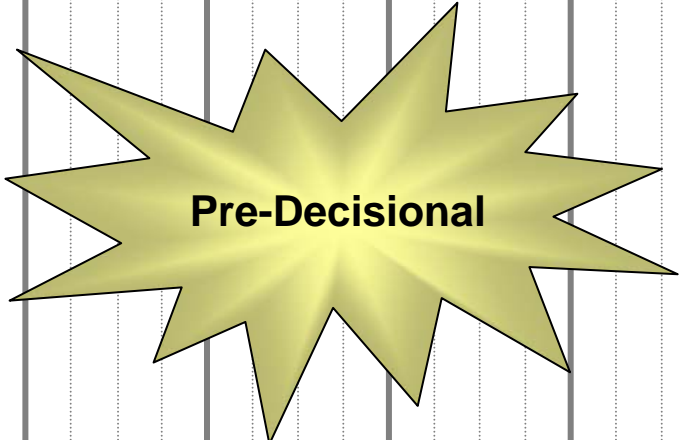
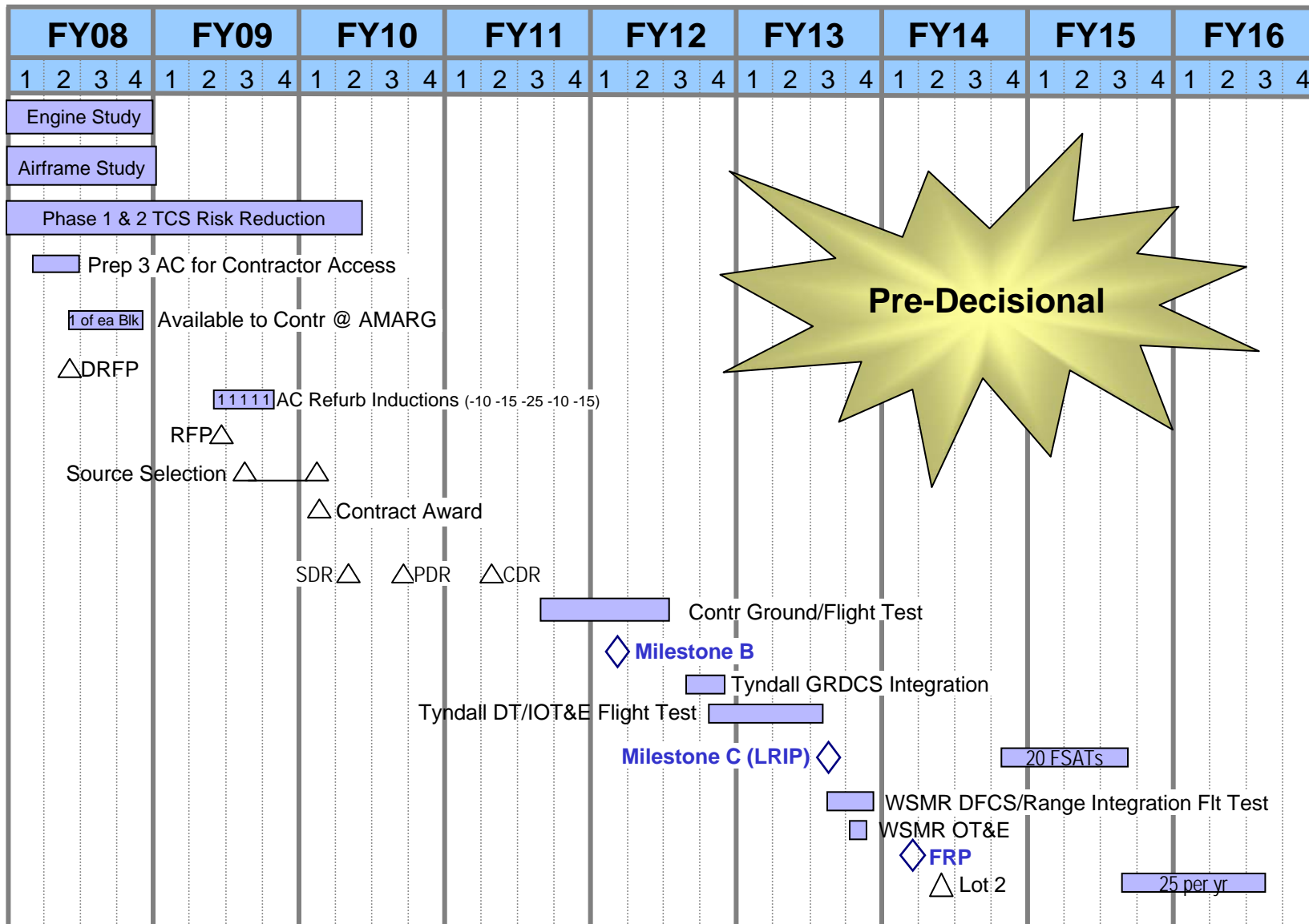
- **Follow on for QF-4 Program: Supersonic, High-G, Heavy Payload Capability**
- **Satisfies Title 10 "Live Fire/Lethality"**
- **Provides 4th Generation Threat Representation**



Proposed QF-16 Schedule FY08-FY16



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QF-16 Risk Reduction



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- **Risk Reduction Activities: FY07 - 09**
 - Focus on Government Furnished Equipment
- **F-16 Airframe Study**
 - Assess Condition and Availability of Block 10, 15, and 25s
 - Cost of Refurbishment
- **Engine Study**
 - OSS&E Impacts to Manned and Unmanned Capability
 - Assesses Multiple F100 Engine Configurations
- **Target Control System (TCS)**
 - Data Link Tester Development
 - Integrate Ground S/W with Contractor-Developed Airborne S/W
 - Portable TCS For Contractor Development Support



F-16 Aircraft Survey



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- **Provide Potential Primes Access to Airframes**
 - **Three F-16s Available at AMARG in Late FY08**
 - **Blocks 10, 15 and 25**
 - **Government Crew Chief Supervises Visits**
 - **Program Office Set Ups Visitation Schedule**
 - **Aircraft Will Be On Ground Power For Analysis**
 - **Gun and Ammo Canister Will Be Removed**
- **Multiple Visits May Be Permitted**



Pre-Decisional

Better Understanding of Aircraft  ***High Confidence Proposals***



QF-16 AST Status



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- **FY09 PBR Funding Approved**
 - Air Force and Navy Funded
- **1st Industry Day Complete**
 - 63 Industry Attendees Representing 23 Companies
- **Draft RFP Due Out in Mar 08**
 - Key Focus For Industry Day II
- **2nd Industry Day Planned 3QFY08**
 - Increase Use of One-on-One Sessions
- **RFP Release in 2QFY09**
- **Contract Award in 1QFY10**

Acquisition Strategy not yet Approved – Information Regarding Future Events / Strategy is Tentative



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AFSAT Sub Scale Aerial Target

Program Manager: Mr. Jim Cornwell

Description

- **An Affordable, All-Composite Airframe**
- **Flies Faster/Slower, Higher/Lower, and Provides 3x+ More Presentations Than Legacy USAF Subscale Targets**
- **Program in Initial Production Phase**
- **Prime Contractor is CEi, Sacramento, CA**

Key Features

- **Satisfies Title 10 "Live Fire/Lethality"**
- **Operates via Ground Based Target Control System**
- **Subsonic, Relatively Heavy Payload Capability**

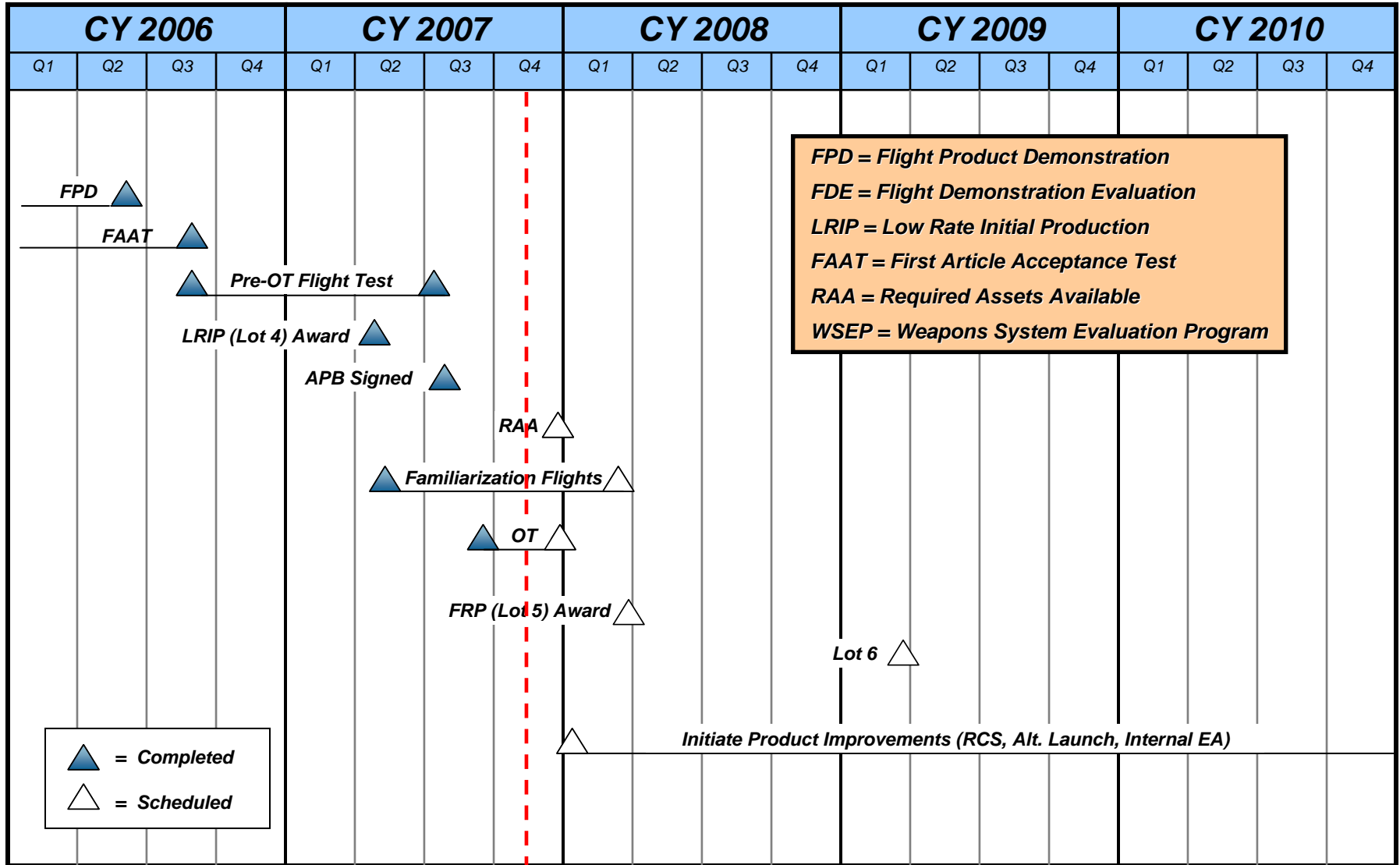




AFSAT Master Schedule



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AFSAT 2007 Accomplishments



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- **Completed Pre-Operational Testing**
- **Supported 21 Familiarization/Weapon System Evaluation Program Missions**
 - **114 Presentations Achieved with 103 Missiles Fired**
 - **5 Kills**
- **Currently in Operational Testing**
 - **Estimate Completion by Nov 07**
- **Full Rate Production Decision Planned NLT Mar 08**



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- **QF-4 Production Planned Through FY13 Using RF-4C Model**
 - **Inventory Depletion Expected in FY15**
- **QF-16 Strategy Underway**
 - **Draft Request for Proposal (RFP) Planned 2QFY08**
 - **Production Deliveries Planned to Begin in FY15**
- **AFSAT OT Testing Complete / Awaiting OT Final Report**
 - **Next Step to Execute Lot 5 Award 2QFY08**