Precision Strike
Annual Review
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Integrity - Service - Excellence
Overview

• Air Armament Center Mission
• Precision Strike Weapon Status
• Better Buying Power Initiatives
• Weapon Buying Opportunities
AAC Mission

To develop, acquire, and test war-winning weapons. We deliver state-of-the-art weapons to the warfighter, provide top quality installation support to all AAC and tenant units, and serve as responsible stewards of our resources.
The Weapons Life Cycle

<table>
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<tr>
<th>Technology</th>
<th>Acquisition</th>
<th>Testing</th>
<th>Training</th>
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<tbody>
<tr>
<td>Science and Technology with AFRL and others</td>
<td>Product Support and Weapon Lifecycle Development</td>
<td>Developmental and Operational Test and Evaluation</td>
<td>Training Future Pilots, Maintainers, EOD Personnel and others</td>
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Transition Technology to Weapon Systems and Provide War Winning Capabilities On Time, On Cost
Precision Strike Weapon Systems

• Long Range Strike Weapons
  – JASSM-ER

• Air Superiority Weapons
  – Next Generation Missile

• Hard Deeply Buried Target Weapons
  – HTM

• Close Controlled Strike Weapons
  – SDB II
Long Range Strike Weapons Roadmap
(Notional)

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NEAR TERM                       MID TERM                           FAR TERM
Long Range Strike

- JASSM/JASSM-ER
- Offensive ASuW (AF)
- LRSO
- Conv. Prompt Global Strike (SMC)
- Next Gen Direct Attack Weapon

CP  DP  S&T  Acq Program  Future Acq Program  O&S  Production
Advanced Guidance for Surface Targets
- High temperature sensors and apertures
- Precise sensor pointing through boundary layer
- Millisecond guidance update
- Miniature, low-power sensor systems

Precision Selectable Effects Warhead
- Tailored blast pulse
- Target coupling

High Speed Weapon Integration and Demonstration
- Platform Integration
- High Speed Dispense
- TRESPAS/TRESPALS2 system study
- Control Surface aerodynamics
- Propulsion and Warhead integration
- Low Cost structure materials

Efficient High Speed Expendable Propulsion
- Scramjet - Mach 6
- High Mach turbojet – Mach 3+

X-51A flight tests
Engine Ground tests
JASSM-ER

• Program Description
  – Conventional >500 NM stealthy missile
  – 1000 lb penetrator, blast/frag warhead
  – GPS/INS with IIR terminal seeker
  – On B-1 (T); B-2, B-52, F-15, F-16 (O)
  – Procuring 2500 w/15 yr warranty

• Status / Recent Successes
  – IOT&E 4 of 5, 5 nominal hits awaiting AFOTEC scoring - 11 shots remain
  – 12 Test missiles deliver May-Jul 2012 to complete operational test
  – First 30 production missiles on contract! Arriving in field early CY2013

• Way ahead
  – Complete remaining IOT&E shots, deliver Low Rate Initial Production missiles
  – Program tracking to successful Full Rate Production Decision in 3QFY13
Air Dominance Technologies

Adaptable Multi-Point Initiated Mass-Focusing, Enhanced Lethality Warhead

High Maneuverability Hybrid Aerodynamic Fin / Reaction-Jet Control System

Guidance Integrated Fuzing (GIF) Weapon Seeker/Fuzing Integration With Dual-Role Target Set Capability

Multi-Pulse Solid Rocket Motor & Other Advanced Propulsion Concepts
HDBT Weapons Roadmap (Notional)

Near Term

- BLU-121 B/B
- BLU-122
- BLU-109/113, LWIP
- HTVSF
- Hard Target Munition (formerly NexGen Penetrator)
- High Speed Penetrator

Mid Term

Far Term

CP  DP  S&T  Acq Program  Future Acq Program  O&S  Production
HDBT Weapon Technologies

Advanced Guidance for Denied/Degraded GPS Environment
- Maintain accuracy in GPS denied/degraded environment
- Adverse weather requirement

Warhead Hardening
- Survivable warhead case
- No internal plumbing
- Robust Fuze well

Energetic Materials Issues
- Survivable
- Maintain Performance
- Alternate Kill Mechanisms

Fuzing
- Void Sensing
- Survivable
Hard Target Munition

• Program Description
  – HTM Program will develop and produce munition(s) (includes: fuze, explosive, case, GNC, propulsion, etc.) to hold Hard and Deeply Buried Targets (HDBTs) at risk
    • Effective against current and future target set
    • Available for multiple platforms
    • Smaller than today’s “gargantuan types”
    • Deny sanctuary to the adversary
    • Explore multiple alternatives to fill capability gaps

• Status/ Recent Successes
  – AF Requirements Oversight Council (Nov 2011)
  – AF Review Board (Jan 2012)

• Way ahead
  – Material Development Decision (Apr 2012)
  – Analysis of Alternatives (FY12-FY13, pending MDD approval)
  – Potential Acquisition Program start (FY14)
Close Controlled Strike/Intra-Theatre Strike Weapons Roadmap

- **JDAM “GBU 31 & 38”**
- Laser GBUs/ Laser JDAMs
- SDB I, SDB FLM
- SDB II
- Laser Guided Rockets (2.75)
- Next Gen Area Attack Weapon
- Non-Kinetic Counter Electronics
- Selectable Effects
- Next Gen Small Weapon

Legend:
- CP
- DP
- S&T
- Acq Program
- Future Acq Program
- O&S
- Production
Small Diameter Bomb II

Program Description

- 250-lb Class, Precision Guided, A/G Munition
- Attack moving targets in adverse weather
- Tri-Mode (millimeter wave, IR, laser) Seeker
  - Normal Attack (moving target engagement)
  - Coordinate Attack
  - Laser Illuminated Attack
- Dual-Band Weapon Data Link (Link 16 & UHF)
- Threshold Platforms: F-15E, F-35B, F-35C
- Range: 40NM
- Targets: Tracked, Wheeled, Boats

Status/ Recent Successes

- To date EVM Performance: Green; Fixed-price contract awarded Aug 2010
- Feb 2012 – 2nd round of Captive Flight Test completed: verified tri-mode seeker hardware and software ability to search, acquire, and track both moving and stationary targets
- Dec 2011, ODASD(SE) concluded Critical Design Review complete
- Dec 2011 - Baseline testing of F-15E to SDB II software interface (UAI) completed

Way ahead

- Program is on track for MS C (FY13) and F-15E Required Assets Available (FY16)
- F-35B & F-35C Risk Reduction Activities Underway
- Guided Test Vehicle drop scheduled for early 3QFY12; first shot against a moving target
Better Buying Power Initiatives

• DoD can no longer start/continue unaffordable programs

• We will continue the never-ending quest to control and reduce our costs while acquiring products and services that provide the highest possible value to our Warfighters

• Industry is our partner in the defense acquisition enterprise; without the industrial base, we could not equip and support our Warfighters

• We must make sound investments in the next generation of technologies to maintain our military superiority
Acquisition Programs
3-5 Year Outlook

New Programs:
- B-61
- LRSO
- NGM
- NexGen AAW
Context for 5th Gen Air Armament

• Change
• Reduced Budgets = Program Cancellations
• Smaller Workforce
• Increased Competition
• Increased Collaboration for Better Business Deals
• Increased Focus on Process Improvement
• Increased Focus on Leadership
Better Buying Power Initiatives

- Comprehensive reviews of Indirect Costs with focus to increase buying power
- Maximizing efficiencies through competition and business strategies
- Identifying cost drivers and developing should costs for production programs
- Analyzing benefit/need of weapons warranties
Better Buying Power Initiatives

Maintaining momentum of Joint Management Council (JMC)

• Explore cross-cutting efficiencies and "Better Buying Power" opportunities with our main industry partners
  • Members (SESs & PMs):
    • NAVAIR
    • NAVSEA
    • MDA
    • DCMA
    • Armament Center
    • Army PEO for Space and Missiles
  • Capitalize on targets of opportunity for large savings
    • Synchronizing awards for alignment between programs
    • Multiple year contracts -- Base year plus options
    • Bundled material procurements
    • Common contract requirements language
    • Value Engineering Proposals/cost reduction initiatives

DCMA & Joint Buying Command Fully Engaged to Establish Better Rate Structure
Today's Weapons Purchases

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SUMMARY

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Unstable buys cause the closure of production lines and the laying-off of skilled full-time workers. Specialized manufacturing capacity and human capital cannot be regenerated without great cost and significant time. (USA007065-11, pg1)
Unstable buys drive up per unit cost and reduce the industrial base’s ability to sustain itself.

Costly inventory lost to non-critical Test & Training (WSEP)

These inefficiencies ultimately extend the process allowing inflation to consume valuable TOA dollars.
Stable buys drive down cost and steady demand provides a stable revenue flow & basis for long-range strategic investment.

Practical weapon substitutions for WSEP.

Avoided inflation and lower WSEP costs free TOA to enable competition/carry another contractor.
A-A Enterprise Look

Missed opportunity to leverage buying efficiencies
Summary

• Current practice of unstable purchases inhibits our ability to leverage buying power
  – Inefficient use of TOA due to lack of EOQ and inflation
  – Causes production gaps – weakens industrial base

• Effective upfront spending, stable buy quantities, and effective WSEP use are vital to correction

• Predictable spending leads to smarter break points and more room to foster competition in next generation systems

• Rather than an individual profile, an enterprise view of our diverse capability is critical to leveraging better buying power
Final Thoughts

- Eglin has a diverse portfolio and will continue to evolve
- Declining Budgets Will Present Significant Opportunities
- Rapidly Changing Defense Landscape
  - Budgets, Leadership and Organizational Changes
- Programs That Can’t Keep Up Will Not Survive
- The Defense Team Needs to Innovate
  - Not just on technology, but how we maximize procurement funds