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Air Armament Center

Flexibility Precision
Weapons Bring to the Fight

Dr Bruce Simpson, SES
Director 308 ARSW
11 Mar 2009
Mission Statement

*Equip Our Warfighters with Air Dominance, Strike, and Combat Support Capabilities to Fight and Win Decisively*

Vision Statement

*War Winning Capabilities…On Time, On Cost*
Capabilities Evolving and Integrating into the Battlespace

Capabilities
- Precision
- Moving targets
- Low collateral damage

Integration Capabilities
- Find/fix/target
- Decoy
- Suppress/deny

Networked Weapons and Platforms
Joint Direct Attack Munition (JDAM)

- Low cost, guidance *tail kits*
- GPS, Inertial Navigation System
- Mk 80 Series/BLU-109 compatibility
- Accurate <5 meters, in-flight retargeting
- Autonomous & adverse weather capability
- F-15E, F-16, F/A-18, F-22A, AV-8B, B-1B, B-2, B-52H

Navy BLU-126 - Low Collateral Damage

- Inert fill
- High Explosive
Laser JDAM

- Response to Urgent Operational Need
- Precision Laser Guidance Kit on GBU-38
- Ability to engage moving targets up to 70 mph
- Accuracy: 3m Stationary, 6m at 70 mph
- Field installable
- Mk-82, BLU-111, BLU-126 compatibility
- F-15E, F-16 Block 40/50, F/A-18A+/C/D
- Production: 400 Air Force, 400 Navy
Hard Target Void Sensing Fuze

- Capable of defeating hardened and deeply buried targets
- Capable of sensing multiple voids
- Capable of operating in hardened concrete
- Reprogrammable from aircraft cockpit

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- JCTD
- 2 Awards
- B: EMD
- Downselect
- C: P&D (5,500 fuzes)
Small Diameter Bomb (SDB I)

- All-weather, autonomous, precision
- 250 lb class GPS/INS weapon
- Reduced collateral damage
- Flexible attacks with standoff ranges >50nm
- Increased loadout--multiple strikes per sortie
- Cockpit-selectable electronic fuze
- F-15E can receive or self generate coordinates
SDB Focused Lethality Munition (FLM)

- FY06 Out-of-Cycle JCTD
- CENTAF urgent need
- Low collateral damage variant of SDB
- Precisely delivers lethal blast
- Soft targets at risk w/ reduced collateral damage

New Technology
- Composite Case Warhead
- Multi-Phase Blast Explosive
- Blast Only

SDB I Hardware Attaches to FLM Composite Case
Directed Energy

- Speed of light weapon
- Scalable effects
- Reduced collateral damage

Advanced Tactical Laser
Active Denial System
Miniature Air Launched Decoy (MALD)

- Small, low-cost, air-launched, expendable decoy
- Stimulates integrated air defenses
- Emulates fighter/attack/bomber
- Increases enemy’s “Fog of War”

MALD-J

- Adds jammer and retains decoy capability
- Degrades EW/GCI/ACQ radar tracks

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P&D (600 vehicles)
HARM Targeting System (HTS)

- Single Ship HARM Targeting
- Multi-ship PGM Targeting
- Time Critical Targeting
  - Targeting mobile SAMs
  - Protecting strike packages
- Increased Detection Range
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Network Enabled Weapons

WDLN ACTD

JSuW JCTD

Controller

Weapons

3rd Party

Common Network Interface/Messages

Messages, basic CONOP

Goal: Any Targeting Asset, Any Weapon

Promoting Interoperability among Weapons and networked systems

NEWIWG Enterprise

NEW NETWORK ENABLED WEAPONS

Peri odic Target Track Updates

Weapon Acquires & Guides to Target BIA

C2 Node Tasking Pairs Shooter / Weapon to Target

Find-Fix-Track-Target-Engage-Assess

Kill chain complete

3rd party targeting for Weapons, JTTPs

Multiple Sensors Execute Pased Track of Identified Target

Weapon Release
Joint Air to Surface Stand-off Missile (JASSM)

- Stealthy cruise missile
- Precision guided vs. high value targets
- Autonomous Launch and Leave >200nm
- Survivable in advanced threat environment
- Guidance: Inertial Navigation / GPS
- F-16C/D, B-1B, B-2A, B-52H
JASSM Extended Range (JASSM ER)

ASSM ER
- Extends range to > 500 nm

JASSM Anti-Surface Warfare (JASSM ASuW)

ASSM ASuW
- Ability to engage moving ships
- Communicates with JSTARS

JASSM ER Schedule

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Detailed Sched in Development

AGM-158B
Small Diameter Bomb II (SDB II)

- Capable against moving targets
- Compact, all weather, standoff weapon
- INS/GPS guided, precision weapon
- Multi-mode seeker

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War-winning Capabilities ...

... On Time, On Cost