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NDIA

48th Annual Fuze Conference

27 April, 2004

Mr. Gerry Freisthler, Director

Long-Range Strike Missile Systems Program Office (Wing)

Air Armament Center

Eglin AFB, Florida

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Overview

- **The PEO Move to the Field**
- **Fuze Video**
- **Challenges**
- **The Way Ahead**

PEO Move to the Field

SAF/AQ Organization Then and Now

Assistant Secretary of the Air Force (Acquisition)
Dr. Marvin R. Sambur

Principal Deputy
(ACQ)
Lt Gen John D. W. Corley

Previous Program Executive Offices (PEO)

Air Force Fighter Bomber (Pentagon)	Air Force Airlift Trainer (Pentagon)	Air Force Weapons (Pentagon)	Air Force Command Control & Combat Support (Pentagon)	Air Force Joint Strike Fighter (Pentagon)	Air Force Services (Pentagon)

Current Program Executive Offices (PEO)

Air Force Aircraft (ASC) (WPAFB)	Air Force FA-22 (Pentagon)	Air Force Weapons (AAC) (Eglin)	Air Force Command Control & Combat Support (ESC) (Hanscom)	Air Force Joint Strike Fighter (Pentagon)	Air Force CM (Pentagon)

Air Armament Center (AAC) As of: Aug 03

- MOBILIZATION ASST TO THE COMMANDER
- COMMAND CHIEF
- **COMMANDER / DAC**
  - VICE COMMANDER
  - EXECUTIVE DIRECTOR
- RESOURCE MANAGEMENT DIVISION
- AA&A/S CONTRACTING DIVISION
- DISCRIMINATION COMPLAINTS
- CINILIAN PERSONNEL
- AFPEO/WP
- ARMAMENT PRODUCT DIR
- DIRECTORS SUPPORT OFFICE
- COUNTER AIR JOINT SPO
  - AREA ATTACK
  - JOINT DIRECT ATTACK MUNITION
    - LETHAL STRIKE JOINT PROGRAM OFFICE
- AIR-TO-SURFACE MUNITIONS
  - ARMAMENT BUS OPS DIVISION
  - SPECIAL PROJECTS SPO
- ENGINEERING & TECH MANAGEMENT DIVISION
  - FINANCIAL MANAGEMENT DIVISION
  - PRECISION STRIKE SPO
- INFORMATION TECHNOLOGY
  - CONTRACTING MGT DIVISION
- COMBAT SUPPORT SPO
  - ADVANCED PROGRAMS SPO
  - RANGE & TARGET SYSTEMS SPO
- PLANS & PROGRAMS DIVISION
  - SYSTEMS MANAGEMENT DIVISION
  - AIR SUPERIORITY MISSILES & WEAPONS DIV

Realigned AAC (As of 8 Jan 04)

- AFMC/CC
- PEO/CC
  - SAE
  - CR (Reserve Advisor)
  - Deputy for Support
  - Command Chief
  - Deputy for Acquisition
  - Secretary Exec CCI
  - CAG
    - 96 ABW (Inst CC)
    - 46TW
    - 377 ABW
    - Center Staff
    - AX Acquisition Support
    - XR Enterprise Program Office
      - NW Nuclear Weapons Directorate
      - YH Area Attack Directorate
      - YA Counterair Directorate
      - YU Direct Attack Directorate
      - YB Combat Support Directorate
      - YV Long Range Strike Directorate
    - Tenant Support

Long Range Strike Missile Systems Program

Systems Program Director ,Gerry Freisthler, SES

Deputy / YVD, Colonel Mike Carlson

Tech Director / YVE , Russ Howard, GS-15

Exec Secretary: Judy Shewski

Exec Officer: Julie Dingus, GS-12

Chief of Contracts / YVK
Rube Manasco, GM-15

Chief of Finance / YVF
Carlos Rodgers, GS-14

Chief of Logistics / YVL
Don Carbonneau, GS-13

Chief of Security / YVS
Steve Wilson, GS-12

JASSM / YVJ
Dale Bridges, GS-15

Int'l Pgms / YVI
Wanda Siefke, GS-14

MALD / YVM
Ann Harbaugh, GS-14

ATD Organization/ YVP
Tom Topolski, GS-15

CM Product Grp / YV-PSM
Col Milo Fogle

(Actg) Deputy
CDR Steve Nakagawa

Deputy
Susan Anderson, GS-13

Deputy
LeEllen Hale, GS-13

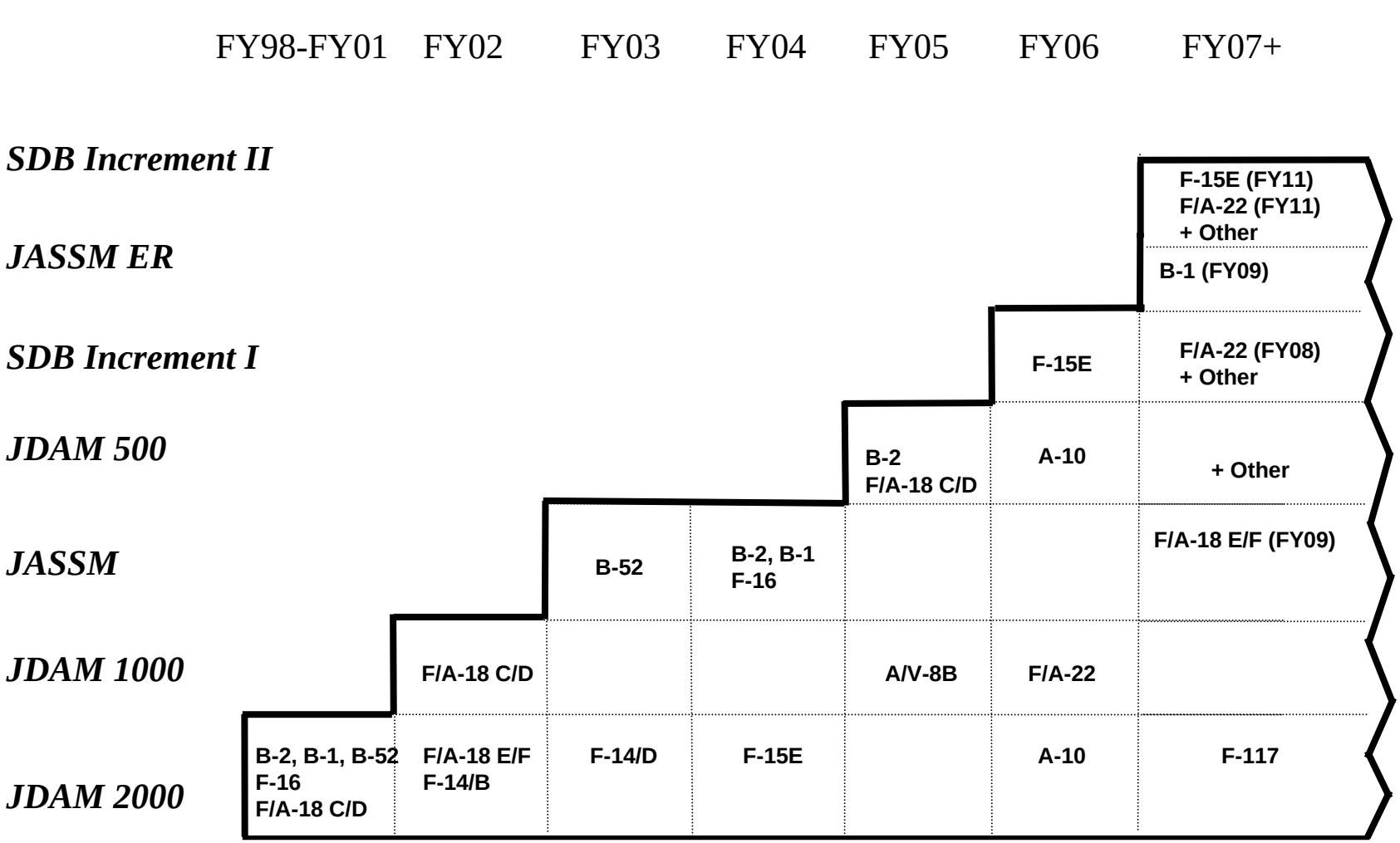
Deputy
Maj Rich Hyde

Deputy
Karl Turner, GS-14

As of: 21 Apr 04

Air Armament Center

- -Delivering Program Capability As Promised!



Warfighter Capability Online


The Fuze

Challenges

- **GFE Fuze Struggles**
- **OIF Target Realities**
- **Collateral Damage**
- **Primes Development of Fuzes**
- **New Technology**

USAF GFE Fuzes Have Struggled

- **FMU-143 (and -156)**
  - **Producibility**
  - **Dearming**
- **Joint Programmable Fuze**
  - **Requirements**
  - **Producibility**
  - **Lot Acceptance**
- **Hard Target Smart Fuze**
  - **Requirements**
  - **Producibility**
  - **Program Termination**

OIF Target Realities

- **15,000 vs 5,000 PSI Concrete**
- **Target Description Uncertainty**
- **Undetected Structural Modifications**
- **Etc…**

Reality is…Intel is Never Perfect
This Drives the Need for Robust and Smart Fuzes

Collateral Damage

- **Duds**
- **Unintended Impact Point**
- **“Too Much” Weapons Effect**

Reality is…the “CNN Factor”

Prime Contractors Developing Fuzes

- **Pros:**
  - **Maximizes Primes Flexibility to Manage Cost, Schedule, Performance; Brings Additional Resources To The Battle**
- **Cons:**
  - **Increases Risk to Prime**
  - **Lack of Experience in Fuze Design**
  - **Increased “Layers” Between Designers and “Government Gatekeepers”**

New Technology

- **The Promise**
  - **Field Programmable Gate Arrays (FPGAs) and Application Specific Integrated Circuits (ASICs)**
  - **Software Driven Systems**
  - **Complex Functions**
  - **Reprogrammability**
- **The Reality**
  - **Design Process Complex – must understand device characteristics and design tools**
  - **Software Safety Analysis Tools are Lacking**
  - **Safety Regulations Must Keep Pace**

The Way Ahead

- **Realistic Cost, Performance and Schedule Expectations**

  "Promises Made…Promises Kept"

- **Smart Investment in Technology**
- **Teaming**