46th ANNUAL GUN AND MISSILE SYSTEMS CONFERENCE AND EXHIBITION

30 AUG 2011

Presented by:
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CURRENT CHALLENGES

- Reducing Budgets
  - Prioritizing Efforts to Maintain the Most Effective Warfighting Capability as Possible
  - Achieving Cost Savings Within Programs by Implementing Better Buying Power Initiatives

CURRENT CHALLENGES (cont')

- System of System Integration Improvements
  - Achieving Greater Capability Through Better Integration
  - System Requirements to be Adjusted to Match with the Army's System of System Emphasis
  - Integrating Air and Missile Defense Systems Efforts are Ongoing – Departing from a Long History of Separate More Stovepiped AMD Systems

CURRENT CHALLENGES (cont')

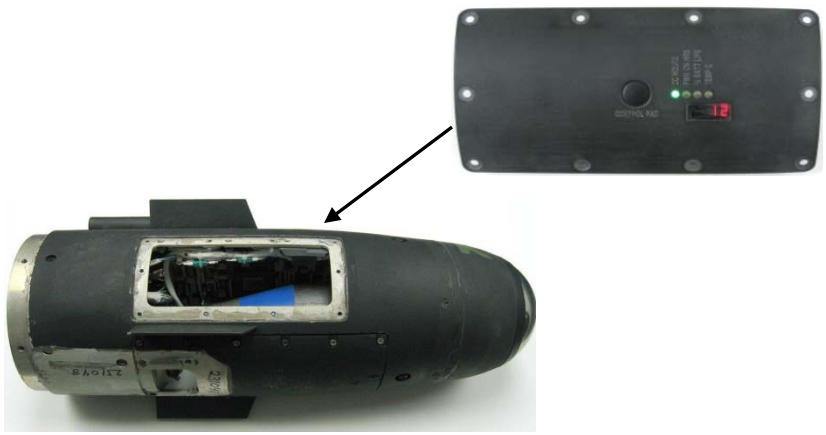
- Responsive Program Execution to Support Warfighter Needs and Timelines
  - Executing Quick Reaction / JUONS Efforts Can Be Done Rapidly to Fill Current Requirements Gaps
  - Program of Records are Challenged by the Requirements and Contracting Process, and Higher Level Program Oversight

CURRENT CHALLENGES (cont')

- Maintaining Our Industrial Base and a Viable Highly Skilled Workforce is Essential for DoD
  - Needs to be Factored into Budget Decision to Maintain Long Term Capabilities for Guns, Missiles and Ammo Development and Production, as Well as for Many Other Areas
  - FMS Will Help Substantially in Some Areas

HELLFIRE MAINTENANCE OPTIMIZATION VIA CAPTIVE CARRY MONITORING UNIT

Captive Carry Health Monitoring (CCHM) Unit



Overview

- Scope of Effort: Qualified design to monitor captive carry hours of individual HELLFIRE missiles and maintain an electronic record on each missile.
- Methodology: Integrate commercially available data acquisition technology to deployed HELLFIRE missiles. These devices will measure and record the captive carry time for each missile along with other variables.
- Participants: AMRDEC (ED, AED, AATD), RTTC, NSWC-Crane, JAMS PMO, OEM Contractor, and Pacific Northwest National Labs.

Schedule

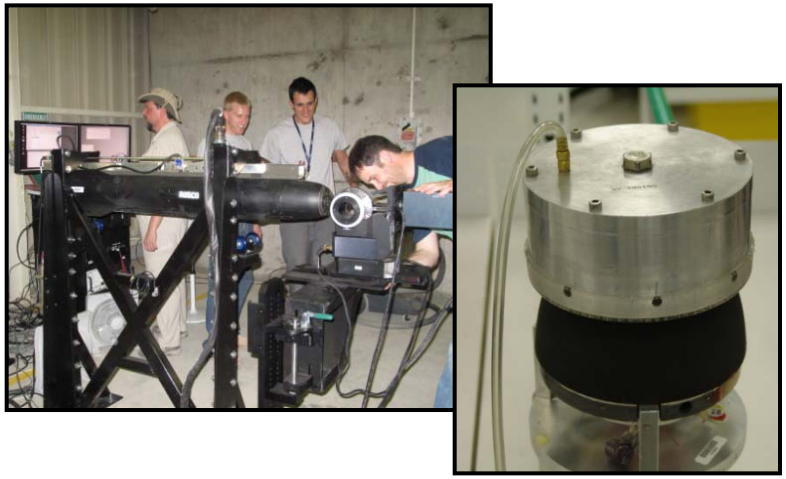
- Near Term
  - FY09-FY10 Design/Qual with FY10-FY13 Production
  - Additional Sensing (Drop Shock/Humidity)
  - Number of Captive Carry Cycles
  - Multiple Platforms (Investigate UAS)
- R Missile HMU
  - Integration into AGM-114R Production
  - Vibration
  - Temperature
  - Drop/Shock
  - Interface w/ ULLS-A

Benefits

- Reduce O&M Costs by $52M (FY09-FY18)
- Integrated with CBM:
  - Reduce maintenance burden
  - Increase reliability & availability
  - Enhance safety
- Utilize captive carry failure rate data to optimize preventive maintenance interval at depot
- Reduction of repair part cost saves $5.2M per year

HELLFIRE MISSILE DOME REPLACEMENT

Dome Replacement Tool Used at FTRF



Overview

- JAMS partnered with Lockheed Martin to streamline the HELLFIRE Missile Depot (HMD) process to repair a HELLFIRE missile that only has a dome failure
- Repair cycle time for a failed dome was 58.5 hours
- New process is 15 minutes and allows dome replacement to be conducted at FTRF
- FTRF also evaluates domes against revised dome scratch criteria

Schedule

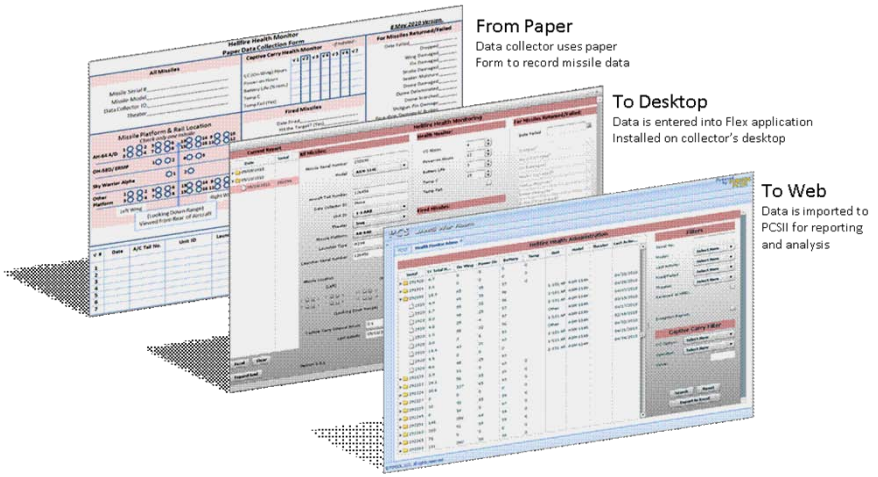
- 22 Oct 09 - Initial Meeting on Dome Replacement
- 20 Jan 10 - Follow-on Meeting where improvements were identified
- 07 Apr 10 - SOPs and testing guidance finalized
- 30 Apr 10 - Improved dome replacement capability implemented at the FTRF

Benefits

- Cost Savings: $5.8M (FY10-FY15)
- Dome replacement cycle time reduced to 0.25 hours
- Dome replacement at the FTRF reduced the median TAT from 431 days to 146 days for all dome failures.
- Increased Materiel Availability by 10%
- Increased Turn Around Time by at least 50% for Eligible Missiles
- Improved Depot Efficiency (Improving Turn Around Times for Remaining CONUS RESET Missiles)

JAMS CBM DATA COLLECTION ARCHITECTURE

Data Collection Evolution



Overview

- The old, manual method of tracking missile CBM data was inaccurate and required additional work to correct errors
- Process lead time took 20.5 hrs on average which resulted in "dated" information
- Process did not track all required information
- Sigma Quality Level (SQL) rate was 2.9
- Process Cycle Efficiency (PCE) was 26.8%

Schedule

- 30 May 10: Implementation of automated database reporting tool
- Use contracted Data Collectors through FY13
- FY13 and beyond: Data collection and transmittal will be fully automated as ULLS-AE/PMA is fielded

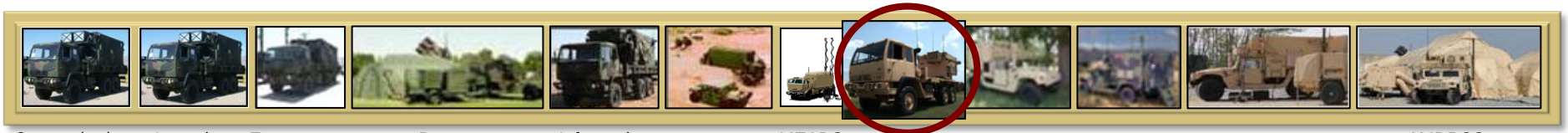
Benefits

- Cost Savings: $11.5M (FY09-FY16)
- Created new database that tracks all required information and utilizes automated reporting tool
- Leveraged existing contract to expanded data collectors to all nodes where trackable assets are located
- SQL increased to 3.26
- PCE increased to 52.4%

BACK UP

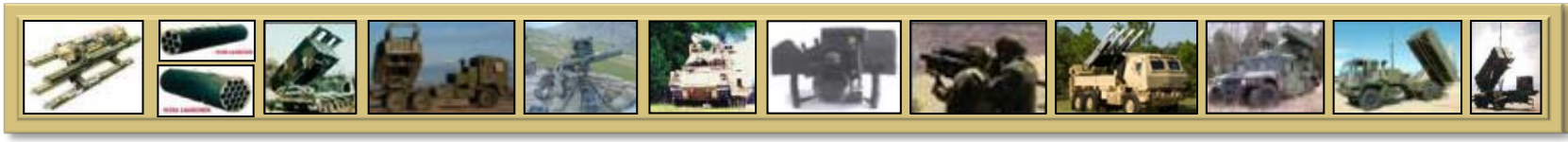
PEO MS PORTFOLIO

BMC4I



Communications Relay Group | Launcher Control Station | Engagement Control Station | Battery Command Post | Information Coordination Central | JTAGS | MEADS BMC4I | IBCS | JFCC | IFCS | FAAD C2 | AMDPCS Family of Systems

Launchers



M299 Launcher | M260 / M261 Hydra 70 | M270A1 MLRS | HIMARS | M41A4ITAS | Bradley TOW | Javelin CLU | Stinger MANPADS | SLAMRAAM | Avenger | MEADS Launcher | PATRIOT Launcher

Interceptor

LPWS

Radars

JLENS FCR & SuR | SENTINEL | PATRIOT Radar | MEADS SuR | MEADS FCR | LCMR | Firefinder

Not part of PEO MS portfolio but has mission equity

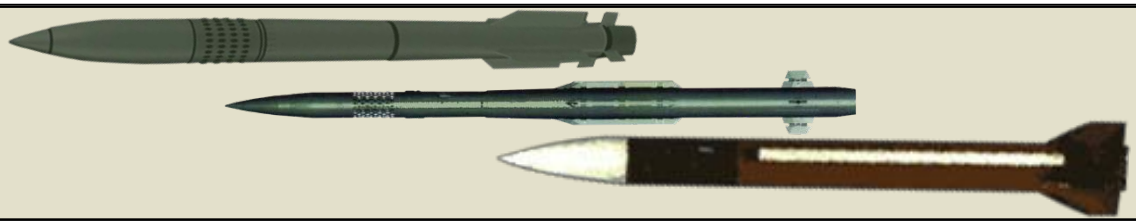
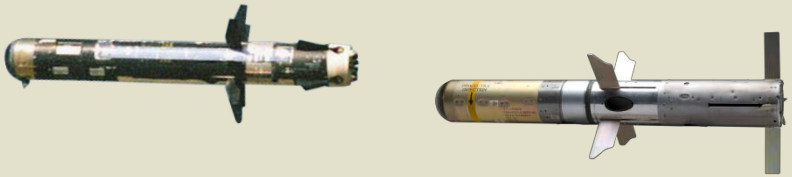
Missiles

20mm Round | APS | EAPS | Viper Strike | Javelin | Griffin | TOW 2B Aero | TOW Bunker Buster | 2.75" | Stinger | Laser-Guided Hellfire | Longbow Hellfire | Joint Air-to-Ground Missile | SLAMRAAM | GMLRS | ATACMS | PATRIOT | PAC-3 | PAC-3 MSE

AIR AND MISSILE DEFENSE SYSTEMS

- Implementing a Strategy Focused on the IAMD Program / Integrated (AMD) Battle Command System (IBCS)
  - Reducing Multiple Current C2 / Engagement Operations System Down to IBCS
  - 'Plug and Fight' and 'Any Sensor, Any Shooter'
- Improving Sensor / Radar Strategy to Capitalize on IBCS Networked Capabilities
  - Ability to Fuse Sensors is Critical Along with Enabling compatibility with Future Launchers and Interceptors
- Multiple Possibilities for Improving the 'shooter' capabilities over time
  - From Long Range Hit to Kill Interceptors Down to Short Range RAM Interceptors, and Everything In Between

MISSILE EFFORTS

PATRIOT (PAC-3, MSE, GEM)	
JAGM and Hellfire	
Javelin and TOW	
GMLRS and ATACMS	
Lightweight Missiles	TBD

MISSILE SYSTEM CONCERNS AND CHALLENGES

- U.S. Missile Program Funding
- Missile Industrial Base and Development Expertise
- Affordability / Efficiencies
- Stockpile Reliability and Shelf Life Strategies
- FMS Volume