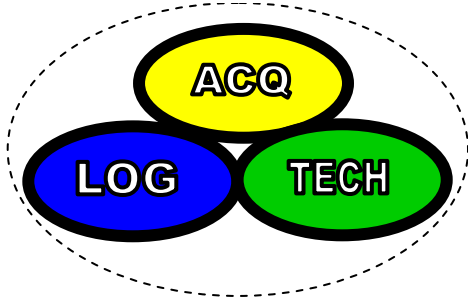
Combat Vehicle Conference

MG Mike Lenaers

24 OCT 2006

TACOM LCMC
Organization



PEO Soldier

PEO Ground Combat Systems

PEO Combat Support & Combat Service Support

COMMAND

Integrated Logistics Support Center (ILSC)

Acquisition Center

Depots and Arsenals

ARDEC Armaments Research Development & Engineering Center

NSC Natick Soldier Center

Enterprise Partners

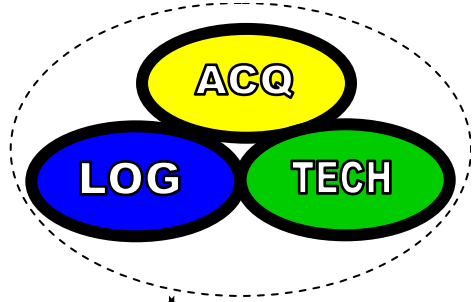
TARDEC Tank Automotive Research, Development & Engineering Center

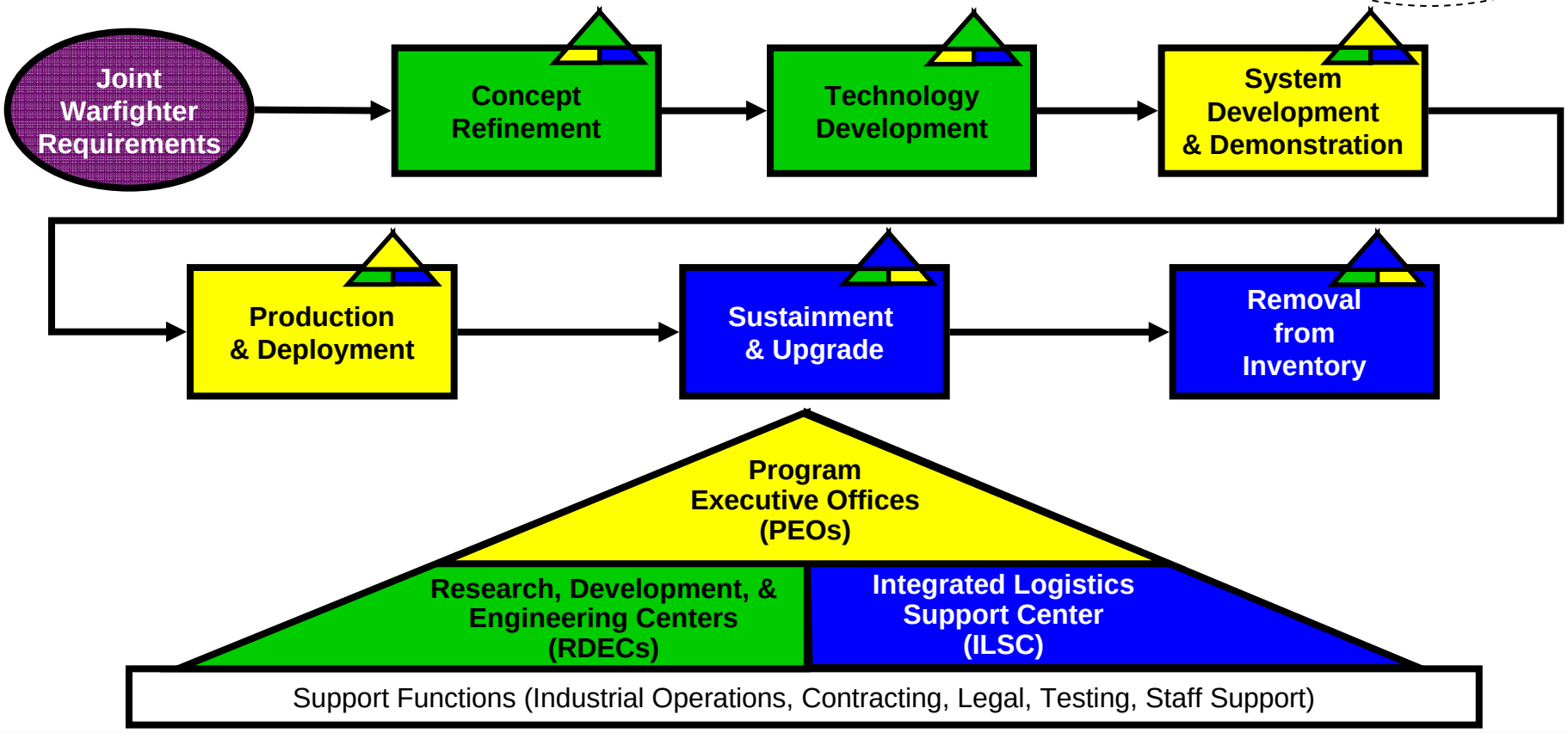
Alliance Partners

PM FCS | PEO Ammo | JPEO CBD | ATEC | DLA | TRADOC | ECBC | RDECOM | USASAC | DCMA

TACOM LCMC

Integrated Across the System Life Cycle





The objective is to get products to the warfighter faster, make our good products even better, minimize life cycle costs, and enhance the effectiveness and integration of our Acquisition, Logistics, and Technology communities.

Funding Restrictions

Joint Warfighter Reqmts → Concept Refinement → Technology Development → System Development & Demonstration → Production & Deployment → Sustainment & Upgrade → Removal from Inventory

RDT&E

FCS

APA

M1A2 SEP

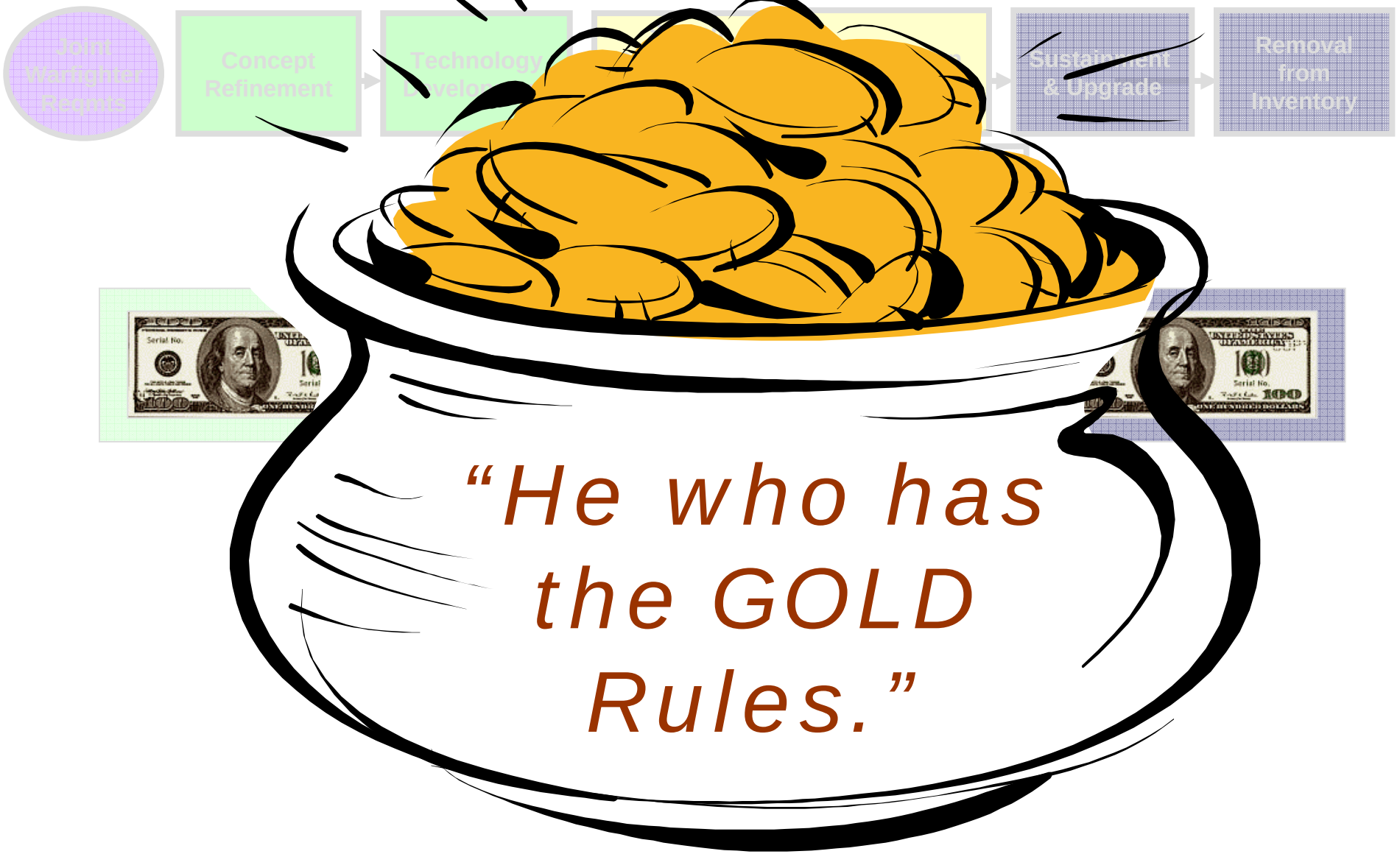
M88A2

AWCF / OMA

M1A1

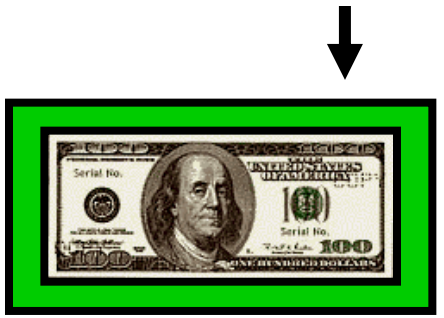
M88A1

Remember the "Golden Rule"

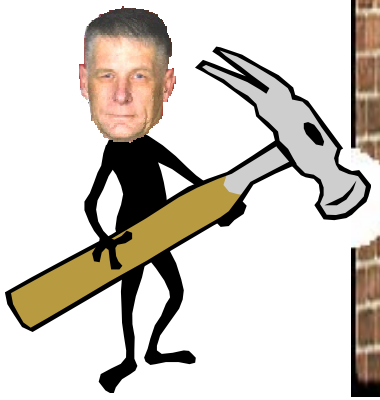


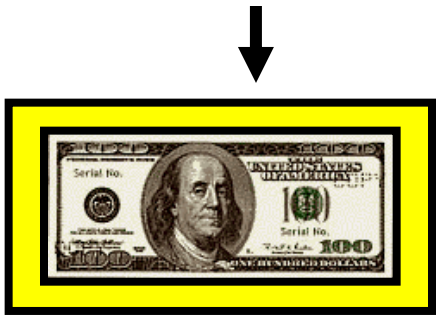
Funding within the Life Cycle

Joint Warfighter Reqmts → Concept Refinement → Technology Development → System Development & Demonstration → Production & Deployment → Sustainment & Upgrade → Removal from Inventory



RDT&E





APA

M1A2 SEP

M88A2

AWCF / OMA

M1A1

M88A1

It Isn't That Tough

Funding within the Life Cycle

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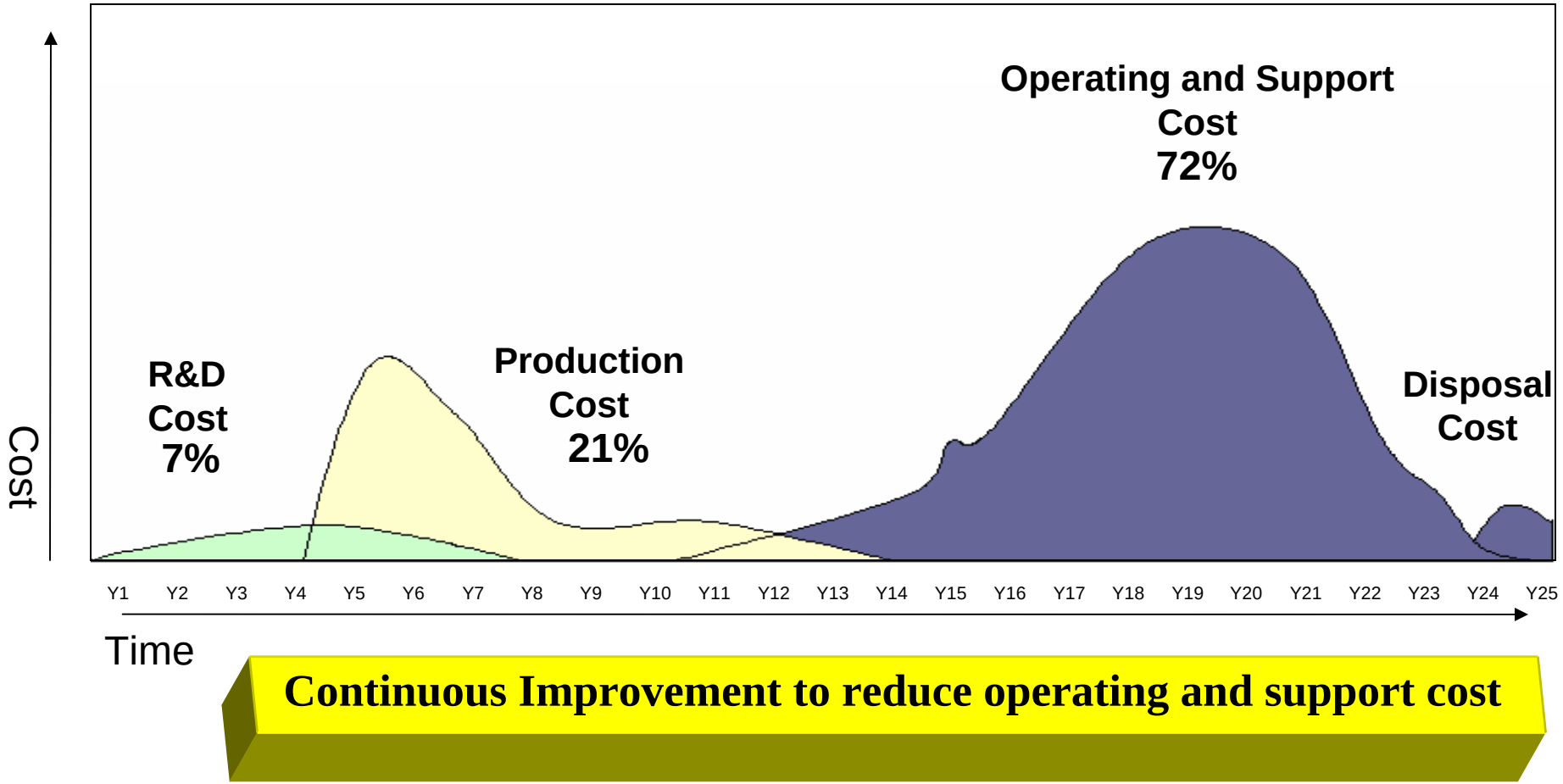
M1A1

M88A1

Life Cycle Costs



Continuous Improvement to reduce operating and support cost

TIGER Enterprise

Program

Execute a 5 Year Integrated program that sustains the AGT 1500 fleet to an average MTBDR of 1400 hours without increasing O&S Costs

Requirements:

1. Increase Durability without O&S Increase
2. Establish a Single Overhaul Standard
3. Implement Supply Chain Management
   - No Material Shortages
   - Quality Material
4. Collect Performance Data on All Engines and Use Data to Drive Future Improvements
5. Modernize 100% Engine Fleet by 2010

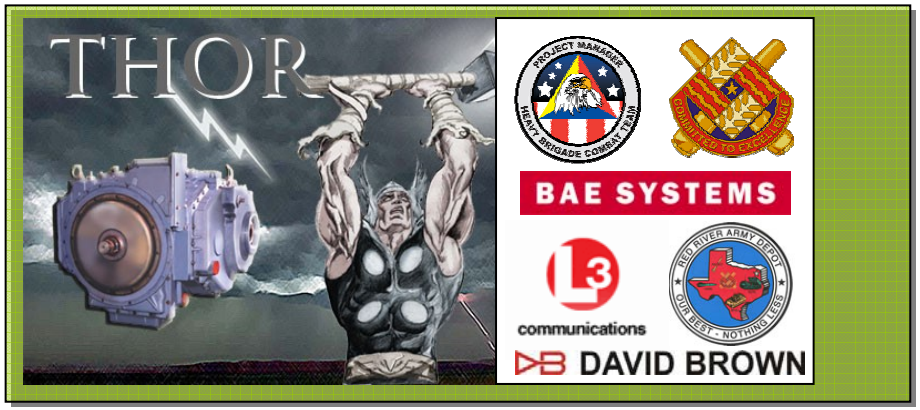
Status

- Process on track to award Program Year 2 (PY2) contract in December 2006 (PAA & AWCF).
- Field sites operational at Hood, Knox, Stewart, Arifjan, Casey, & JCMC (LATP). NTC supported by roving FSE. Benning being stood up.
- Initial transition of electronic work instructions (Honeywell electronic Manufacturing, Operations & Tooling (eMOTs) at ANAD for assembly operations completed.
- Implementation of durability improvements moving IAW accelerated schedule.
- Formal durability test program started. First 361 hour qual test completed June 06. 500 hour test initiated. Completion in Oct 06.
- Temporary FBM data base up and running with data.

TIGER ENGINE
I “HOPE” LOOKS ARE NOT DECEIVING

Bradley Transmission HMPT 500 – 3ECB

Operational Reliability Program (THOR)



Program Strategy:

- Pure Fleet to HMPT 500-3ECB Leverage, RESET, RECAP & Attrition
- Single Standard & Validated Process
  - Single, Improved Standard for RESET / Remanufacture
  - Define inspection requirements with standard acceptance & control testing
- Integrated Life Cycle Management Program
  - Use LCMC Approach to leverage USG/OEM resources and expertise
  - Incentivize partners through Metrics and Performance Criteria
  - Establish Single Procurement Activity for all Transmissions

Accomplishments:

- Common Build Standard for ALL transmission variants established
- Government BCA PSI recommendation approved by MDA
- Systematic Tear Down Failure Analysis Effort in Place
- Material Management approach improvements on-going
- NMWR fully implemented at all sites

Objectives for 1st Quarter FY07:

- First Article Tests in process
  - L3 FAT complete
- Finalize “part kits” development
- THOR Contracting Pre-Documentation Complete
  - Finalize J & A, Acquisition plan, Bundling Document
  - Develop Statement of Objectives
  - Develop Metrics
- Begin Alpha Contracting

Condition Based Maintenance Program Scope

- Functional data from electronic control modules
- Platform sensors and Data
- Automatic data collection, storage, and transmission (transparent to the unit)
- Unique Item Tracking to key components

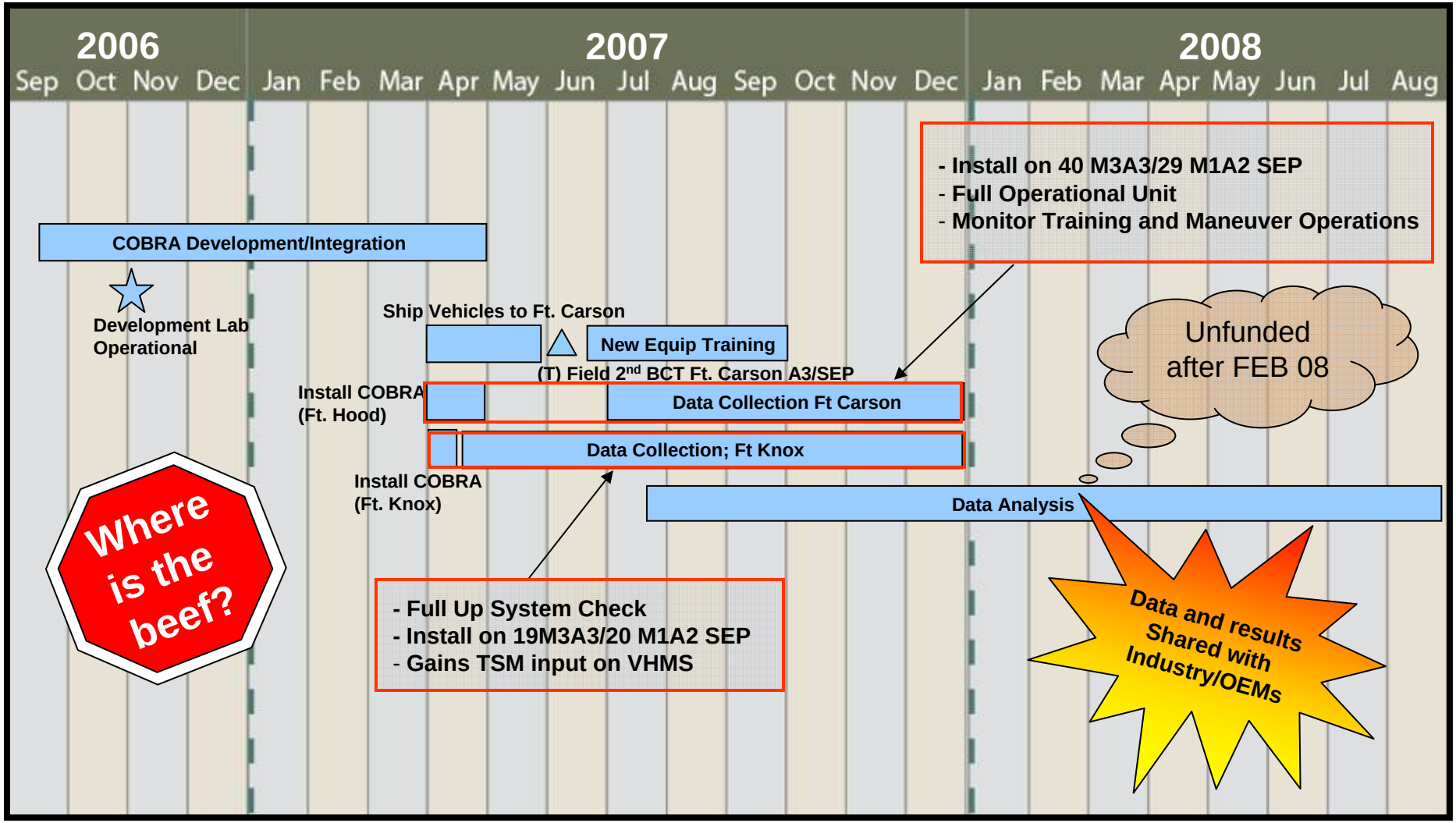
- Maintenance and Logistics analytical tools and reports
- Correlate Maintenance actions with data collected
- Risk reduction with Fort Knox Fielding
- Establishes the foundation for the LCMC CBM+ Capability

Condition Based Maintenance Platform Data Categories

- Critical System Indicators
  - Crew Pressure Low, XMSN Oil Pressure Low, Engine Oil Temp High, Parking Brake On, Clogged Filters, 1st/2nd Shot Discharged, Low Oil; Engine Overspeed, etc.
- Critical LRU Fault Indicators
  - HPDU Fault, DID Fault, CITV Fault, DECU Fault, TMPU Critical Fault, Pulse Jet System Fault, etc.
- Subsystem Fault Indicators
  - Rear Left Fuel Pump Inop, High Electrical System Voltage, APU Circuit Breaker Tripped, FBCB2 Fail, Ballistic Solution Update Error, NBC Main Disabled, etc.
- Subsystem Mode Indicators
  - Lighting System Settings, Heater Settings, Fuel Transfer Settings, Operational Settings of NBC System, Active APU Settings, FBCB2 Operation Status, etc.
- TWV
  - CTIS, ABS, Engine, Transmission, Air Inlet Temperature, Alternator Current, Battery Current (Cranking), Battery Negative voltage Drop, Battery Voltage (cranking), Coolant Level, Coolant Pressure, Coolant Temperature, ECU Input Voltage, Engine Speed,
- Diagnostics Indicators
  - DECU Health Check Indicator, Utility Bus Comm Failure, 1553 Bus Comm Failure; MPU Critical Failure, Cautions and Warnings, Fault Filters, FIT test data, LRU level Self Test results, Utility Bus Test Data, Cable Disconnects, etc.
- Functional/Operational Indicators
  - System Operation Mode, LRU Operating Mode Requests, Speedometer, System Voltage, Odometer, Engine Hours, Fuel Level, Engine Operating Mode, Transmission Shift Select,

Over 2700 Data Elements Available

Condition Based Maintenance Schedule



Need Your Help

- Industry must be fast and agile
- Continuous product improvement
  - Performance based logistics
- Condition Based Maintenance
  - Access to your data
  - Need industry help
  - What is ROI?

AMERICA'S ARMY