

U.S. ARMY MATERIEL COMMAND

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**DoD Depots of the Future
Presented at
DoD Maintenance Symposium**

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ESSENTIAL IN PEACE, INDISPENSABLE IN WAR

Agenda

- **Organizational Structure**
- **National Maintenance Program (NMP)**
- **Lean / Six Sigma**
- **Forward Repair Activities (FRA)**
- **Vision of Deployable Sustainment Capability**
- **Modularity**
- **Where We Are Going**
 - CITE and Partnerships



ESSENTIAL IN PEACE, INDISPENSABLE IN WAR

Organizational Structure

Depots

- Complete End Item Overhaul
- Component Overhaul
- Remanufacturing
- Other Military Service Work
- Other Government Work
- Public-Private Partnerships on-site
 - ✓ *Manufacturing*
 - ✓ *Maintenance*
- Fabrication of Commercially Unavailable Components and Parts
 - ✓ *Reverse Engineering*
 - ✓ *Flexible Light Manufacturing*
- Depot Field Teams In-Theater

Centers of Technical Excellence (CITE)

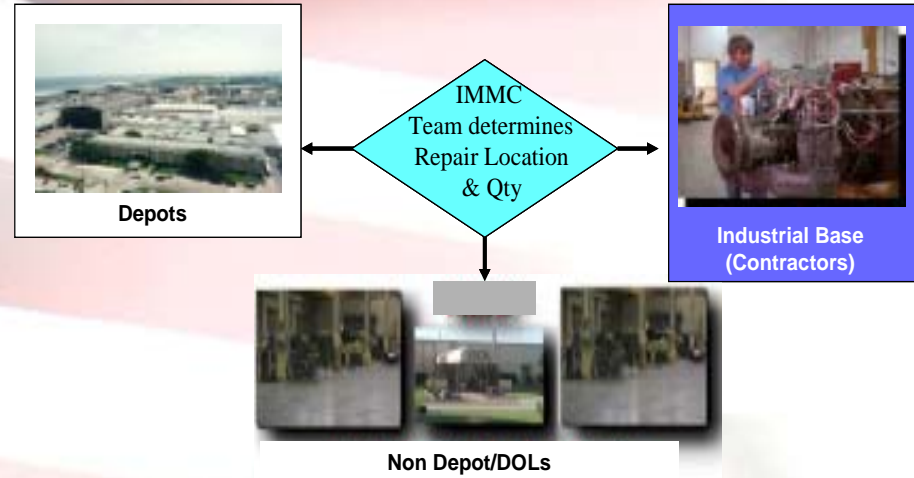


ESSENTIAL IN PEACE, INDISPENSABLE IN WAR

National Maintenance Program

What It Is

- **Sustainment Maintenance of Class IX Reparables includes MRC F, H, L, and D items**
 - Ensures repair is based on national requirements
 - Implements the single standard of repair for those items returned to the supply systems
 - Optimizes workload across Sources of Repair (SOR)
 - Consolidates and prioritizes all national sustainment maintenance workload with Qualified National Providers
 - Justifies higher investment cost with increase in reliability



Sample Data Collection

NMP Reliability Indicators

| | NIIN | NOUN | SYSTEM | Baseline Miles | RECAP Miles | % Change |
|---|-----------|--------------|------------|----------------|-------------|----------|
| 1 | 001245387 | Engine | M88A1 | 707 | 3,129 | 442 |
| 2 | 001407531 | Transmission | M88A1 | 1,263 | 3,129 | 247 |
| 3 | 012573879 | Engine | M977 HEMTT | 27,690 | 56,250 | 203 |
| 4 | 014230929 | Engine | M2/3 | 11,096 | 19,357 | 174 |

PRELIMINARY DATA

How did we get this?

- Tighter tolerances
- Increase in mandatory replacement parts

NMP Summary

- The National Maintenance Program (NMP) targets a single standard of repair for secondary items repaired and returned to stock.
- Repairing to a higher standard enhances system readiness and adds value to the overall sustainability process by incorporating a higher level of repair of Class IX items for a wide range of weapon systems, not just the systems selected for Recapitalization.

ESSENTIAL IN PEACE, INDISPENSABLE IN WAR

Lean / Six Sigma

Value of L6σ

- Enables materiel to the Soldier
Better - - Cheaper - - Faster
- Provides structured approach to Continuous Measurable Improvement (CIM)



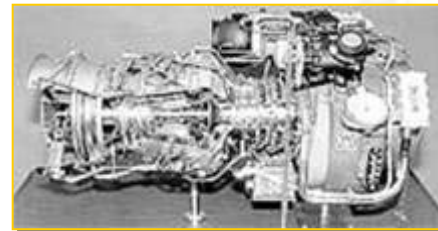
HEMTT
Red River Army Depot

- ✓ Increased weekly output from 2 to 6
- ✓ Average cycle days reduced from 120 to 50
- ✓ 40% improvement in productivity

Ground Mobility Vehicle *Letterkenny Army Depot*



- ✓ LEAD returned \$990K in Lean savings to SOCOM in FY04
- ✓ Reduced turn around time for the GMV modifications from 10 weeks to only 8.8 days from the time a vehicle came in the gate to the depot until it was loaded on a truck for delivery to the warfighters



T700 Engine Program
Corpus Christi Army Depot

- ✓ Increased Mean Time Between Replacement from 309 hours to 900+ hours
- ✓ Reduced time to produce an engine from 261 days to 90 days



ESSENTIAL IN PEACE, INDISPENSABLE IN WAR

Forward Repair Activities (FRA) in Support of OIF/OEF

CURRENT CAPABILITIES / OIF-2

AVIATION:

- THEATER AVIATION MAINTENANCE PROGRAM
- MAST MOUNTED SITE TEAM
- THEATER AVIATION SINGLE MANAGER

COMMS/ELEC/INTEL:

- ESSC, IEW, MSE, CSLA, SWE, STAMIS, COTS, & CGS IN KUWAIT, IRAQ, & AFGHANISTAN

GROUND EQUIPMENT:

- TACOM FRA KUWAIT with RAPID MANUFACTURING SYSTEM MODULE
- TEAM ARMOR PARTNERSHIP IRAQ
- HMMWV SERVICE CENTER with MOBILE TEAM (MST) IRAQ (*maturing to Light Vehicle Center*)
- TIRE MAINTENANCE CENTERS IRAQ/KUWAIT
- STRYKER FRA IRAQ

WHERE WE ARE GOING FOR BEYOND OIF-2

AVIATION:

- EXTENDED DESERT MAINTENANCE
- TAMP with MMS with Teams Forward To Iraq as Required
- EXPAND THE THEATER AVIATION SINGLE MANAGER operations in Iraq

COMMS/ELEC/INTEL:

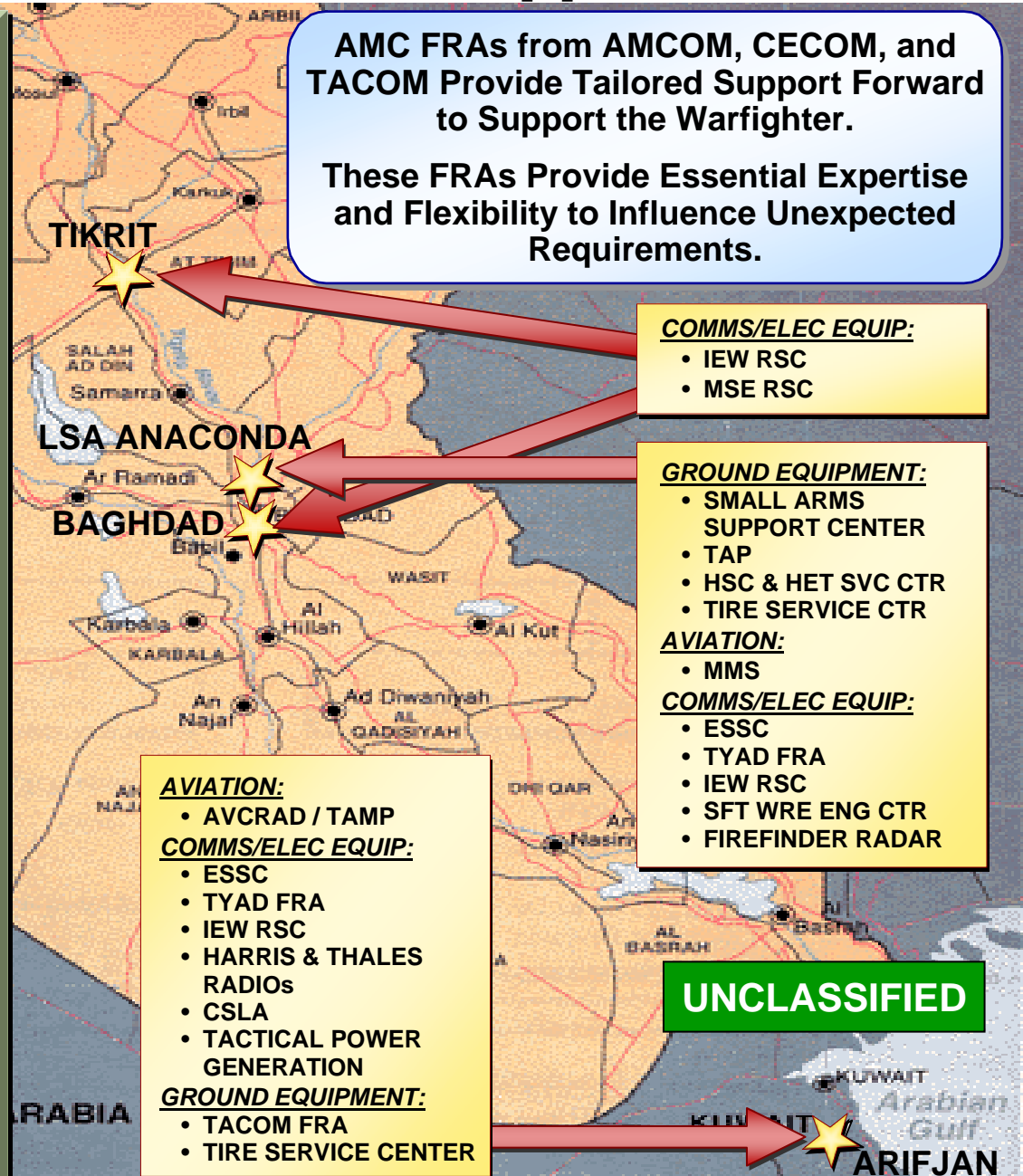
- ESSC, IEW, MSE, CSLA, SWE, STAMIS, COTS, & CGS IN KUWAIT, IRAQ, & AFGHANISTAN, Firefinder Radars Iraq and Power Generators Kuwait

GROUND EQUIPMENT:

- EQUIPMENT SUPPORT ACTIVITY - IRAQ
- LIGHT VEHICLE SUPPORT CENTER IRAQ
- HEAVY WHEELED SUPPORT CENTER IRAQ
- TEAM ARMOR PARTNERSHIP
- COMBAT EQUIPMENT GROUP KUWAIT
- EQUIPMENT SUPPORT ACTIVITY IRAQ
- TACOM FRA KUWAIT with RAPID MANUFACTURING SYSTEM MODULE

AMC FRAs from AMCOM, CECOM, and TACOM Provide Tailored Support Forward to Support the Warfighter.

These FRAs Provide Essential Expertise and Flexibility to Influence Unexpected Requirements.



- COMMS/ELEC EQUIP:**
- IEW RSC
 - MSE RSC

- GROUND EQUIPMENT:**
- SMALL ARMS SUPPORT CENTER
 - TAP
 - HSC & HET SVC CTR
 - TIRE SERVICE CTR

- AVIATION:**
- MMS

- COMMS/ELEC EQUIP:**
- ESSC
 - TYAD FRA
 - IEW RSC
 - SFT WRE ENG CTR
 - FIREFINDER RADAR

- AVIATION:**
- AVCRAD / TAMP

- COMMS/ELEC EQUIP:**
- ESSC
 - TYAD FRA
 - IEW RSC
 - HARRIS & THALES RADIOS
 - CSLA
 - TACTICAL POWER GENERATION

- GROUND EQUIPMENT:**
- TACOM FRA
 - TIRE SERVICE CENTER

UNCLASSIFIED

Vision of Deployable Sustainment Capability

Current Scenario

- **Aviation Classification Repair Activity Depots (AVCRAD) deploy under the command and control of AMCOM**
 - Provide sustainment level aviation capability
- **No similar ground capability exists**

Extremely Successful

Pull together depot personnel for mission

Future Scenario

- **Develop additional capabilities for AVCRADs to provide more depot level maintenance in deployed operations**
 - Funded \$84M in tools and test equipment to plus-up capability
- **Integrate new Component Repair Companies (CRC) within sustainment base**
 - Align with depots
 - Realign training strategy, to include annual training at a depot
 - Integrate wartime missions with peacetime training
 - Designed to be deployable to any node along sustainment base



Modularity

Depot Maintenance FY05

Small Arms

| | |
|------------------|--------------|
| M2 MG | 2,193 |
| MK-19G MG | 185 |
| M240B MG | 225 |
| M249 SAW | 175 |
| M16A2 | 3753 |
| M203 GL | 468 |

**NOTE: HMMVW Modularity Requirements to be Filled
Through New Procurement and Redistribution**



ESSENTIAL IN PEACE, INDISPENSABLE IN WAR

Where We Are Going

SITE and Partnerships

- **Centers of Industrial and Technical Excellence**
 - Best Commercial Practice
 - Capital Investment for Core Capabilities
 - Increased use of Public-Private Partnerships
- **Work Force Revitalization**
 - Multi-skilled employees
 - Training, Apprenticeship, Cooperative Education



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