TACOM
Life Cycle Management Command

Tactical Wheeled Vehicles PSID Reset Briefing

By Ms. Janet Bean
Executive Director,
Integrated Logistics Support Center

As of: 161600122008

TWV PSID EQUIPMENT

DOLLY SET

M871A3 LADS AND
M1088 TRACTOR

M870A3
TRLR

HEMTT

161600122008

Ms. Janet Bean, Ex Dir, ILSC

TACTICAL VEHICLE PSID

Our Vision: Provide World Class products and logistics support through innovative “reach forward" thinking, processes, and business practices that enables a seamless flow of support from factory to foxhole. The first choice for TACOM customers.

Our Mission: To develop, acquire, produce, field, and sustain safe, reliable, effective and supportable Tactical Wheeled Vehicles and Trailers for the joint war fighting community

Sustainment Level Reset Vehicle Induction Criteria

- ***Vehicles meet ANY or ALL of the following qualification criteria in order to be inducted into the Sustainment Level Reset Program:***

  - **Equipment deployed in support of OIF/OEF/GWOT**
  - **Sustainment level repair tasks**
  - **Beyond user capability in time and dollars**
  - **Where clear and compelling equipment conditions demonstrate**
  - **ARFORGEN Liaison Officer (ALNO) or TACOM LAR confirms truck condition**.

Reset Maintenance Philosophy

- **Sustainment Level Reset Programs are:**
  - **rebuild or replace all major assemblies**
  - **rebuild to like new condition while maintaining current configuration**
  - **includes 13 month vehicle warranty on contractor Reset**
- **Tactical Wheeled Vehicle Truck Reset programs have successfully reset 14,596 Heavy, Medium, Light and Trailers since 2004.**

Current Reset Locations

- **Oshkosh Corporation: HET Tractors, PLS Trucks, and PLS Trailers**
- **DRS: HET Trailers**
- **Red River Army Depot: HMMWV, HEMTT A0, Trailers, M939 Series 5 Ton Trucks, Freightliner M915, M916, and M917 Pilot programs**
- **Red River Army Depot/BAE Partnership: FMTV**
- **Textron: ASV**
- **Federal Prisons Industries: Freightliner M915, M916, and M917 Pilot programs**
- **Sierra Army Depot: Trailers**

Theater Provided Equipment (TPE)

Accomplish REFURB (10/20+) maintenance of Heavy/Medium/Linehaul/Light Theater Provided Equipment (TPE) fleet.

- Primary Customer: Multi-National Forces Iraq (MNFI)
  - Current Efforts include support to OEF
- Workload divided into four separate Contracts
  - Heavy (HEMTT/HET/M1000/PLS)
  - Linehaul (M915 FOV: AM General/Freightliner)
  - Medium (M939 FOV/FMTV)
  - Light (HMMWV)
- Key Program Elements
  - Honeywell/Oshkosh/LSI Provided Facilities within 75 KM of Camp Arifjan, Kuwait
  - Contractors utilize government supply system for parts.
  - TACOM/DCMA staff on site at contractor facilities.
- Objective
  - Contractor achieves monthly government delivery schedule with the trucks restored to 10/20 condition

Field Level Reset

- **Field Level Reset is managed by the Army Sustainment Command**
  - Includes vehicles that do not require the extensive repairs as authorized at the Sustainment Level
  - Vehicles are repaired to a standard 10/20 level of repair (capable of performing all assigned missions)
  - TACOM LCMC provides the Scope of Work for each type of vehicle
  - Normally all work is completed by the local Directorate of Logistics or Field Logistics Readiness Centers
  - TACOM LCMC provides assistance as necessary with scarce parts and maintenance related issues

Total Tactical Reset Program

Group	FY04	FY05	FY06	FY07	FY08	FY09	TOTAL
Heavy	943	1434	906	1050	446	293	5072
Medium	82	463	612	1265	542	698	3662
Light	235	1164	205	1148	725	1742	5219
Trailers	121	866	1475	1527	991	497	5477
Tactical RESET Total	**1381**	**3927**	**3198**	**4990**	**2704**	**3230**	**19430**

- Total Dollar Value for Tactical Vehicles in FY 2009 is $278M

Heavy Tactical Reset

- M915 FOV
  - Organic program performed at Red River Army Depot (RRAD) and Federal Prisons Industries (FPI)
  - RRAD Production moved in FY09 to a separate building with a dedicated assembly line resulting in an increase in capacity
  - RRAD and FPI Pilot programs scheduled to be completed in February 2009
  - RRAD currently working on a parts support contract to assist with parts issues

- HET and PLS
  - Current contract is with Original Equipment Manufacturers (OEM), Oshkosh Corporation (OSK)
  - Tear down to frame rails, rebuilt to like new 'zero hours, zero miles'
  - After FY09, all future PLS rebuild will be done through Recap

- HEMTT
  - DA G8 has determined that there is no longer a current and/or future HEMTT Reset requirement.
  - All current and future HEMTT rebuild will be done through Recap at OSK

- M1000
  - Current contract is with OEM, DRS Sustainment Systems, Inc.
  - A new three year IDIQ contract is currently being negotiated with DRS, estimated award date is February 2009

Medium Tactical Reset

- M939 FOV
  - Organic program performed Red River Army Depot (RRAD)
  - Production moved in FY09 from a bay layout to an assembly line resulting in an increase in capacity
  - Production capacity is 96 per month based on a 40 hour work week
  - Average Repair Cycle time is 67 days for Cargo Trucks and up to 120 days for Vans

- FMTV
  - Current contract is a Public Private Partnership between BAE Systems and RRAD
  - Tear down and assembly are performed at RRAD
  - Per contract negotiation, production is 30 vehicles per month
  - 100 day Repair Cycle Time also negotiated in the contract

- ASV
  - Original pilot program for 5 vehicles performed under a Public Private Partnership between Textron and RRAD
  - Follow on Proof of Concept contract for 12 vehicles awarded sole source to Textron
  - Repair Cycle Time is 180 days per contract

Light Tactical Reset

•HMMWV FOV

- HMMWV Reset is an organic program being performed by Red River Army Depot.
- Depot production capacity is a total of 32 per day for both the Reset and Recap programs.
- Depot repair cycle time for Reset is 30 days.
- The customer pay program began support to the Reset program in FY08.
- The customer pay concept involves a vendor that manages, stores and delivers inventory to the customer point of use. Objective is to synchronize parts supply with production to reduce the risk of stock outs.
- Lean Six Sigma philosophies were utilized to streamline processes throughout RESET production to lower costs and optimize production schedule.
- Completed Reset vehicles were used to fill high visibility requirements for pilot units and data interchange customers.

Trailer Group Tactical Reset

•Currently operating Reset Programs at RRAD and SIAD. FY 10 RRAD will be only Reset site for trailers.

•FY 09 program covers nine series of trailers including water trailers, vans, flatbed cargos, equipment transporters and fuel tankers.

•Scope of Work is to 10/20 + 3D.

•Reset Program very successful with high quality by all sources and minimal parts issues.

•Majority of trailers Reset are retrograde assets. Due to use of TPE, CONUS Reset requirements are relatively low.

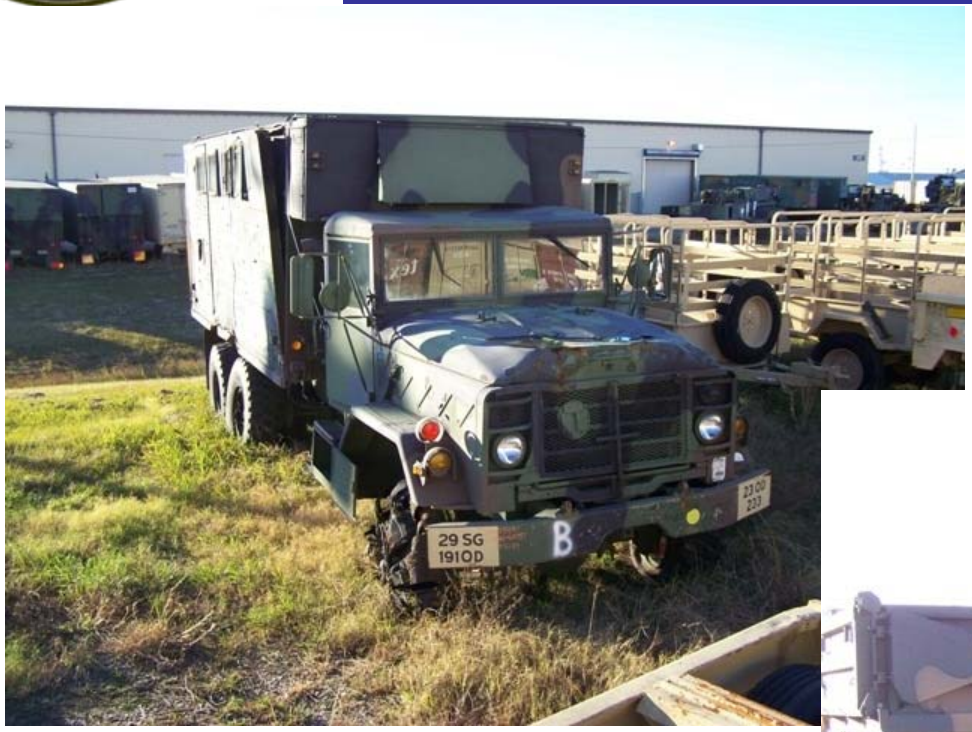
BEFORE AND AFTER PICTURES

- The next few slides show examples of before and after pictures of Tactical Wheeled Vehicle Truck Reset.

M915 FOV RESET AT FREIGHTLINER OF SAVANNA

HEMTT RESET AT OSHKOSH TRUCK

M939 RESET AT RED RIVER ARMY DEPOT



FMTV RESET AT RED RIVER ARMY DEPOT

ASV RESET AT RED RIVER ARMY DEPOT

HMMWV RESET AT RED RIVER ARMY DEPOT

M129 SERIES VANS RESET AT RED RIVER ARMY DEPOT

2009 NDIA Tactical Wheeled Vehicle Conference
The TWV Quality "Marathon"
Observations Across the Portfolio

Mr. Edward J. Bridges

DCMA

Ground Systems and Munitions Division

Technical Division Chief

DCMA
Mission and Vision

Mission

We provide Contract Administration Services to the Department of Defense Acquisition Enterprise and its partners to ensure delivery of quality products and services to the Warfighter; on time and on cost.

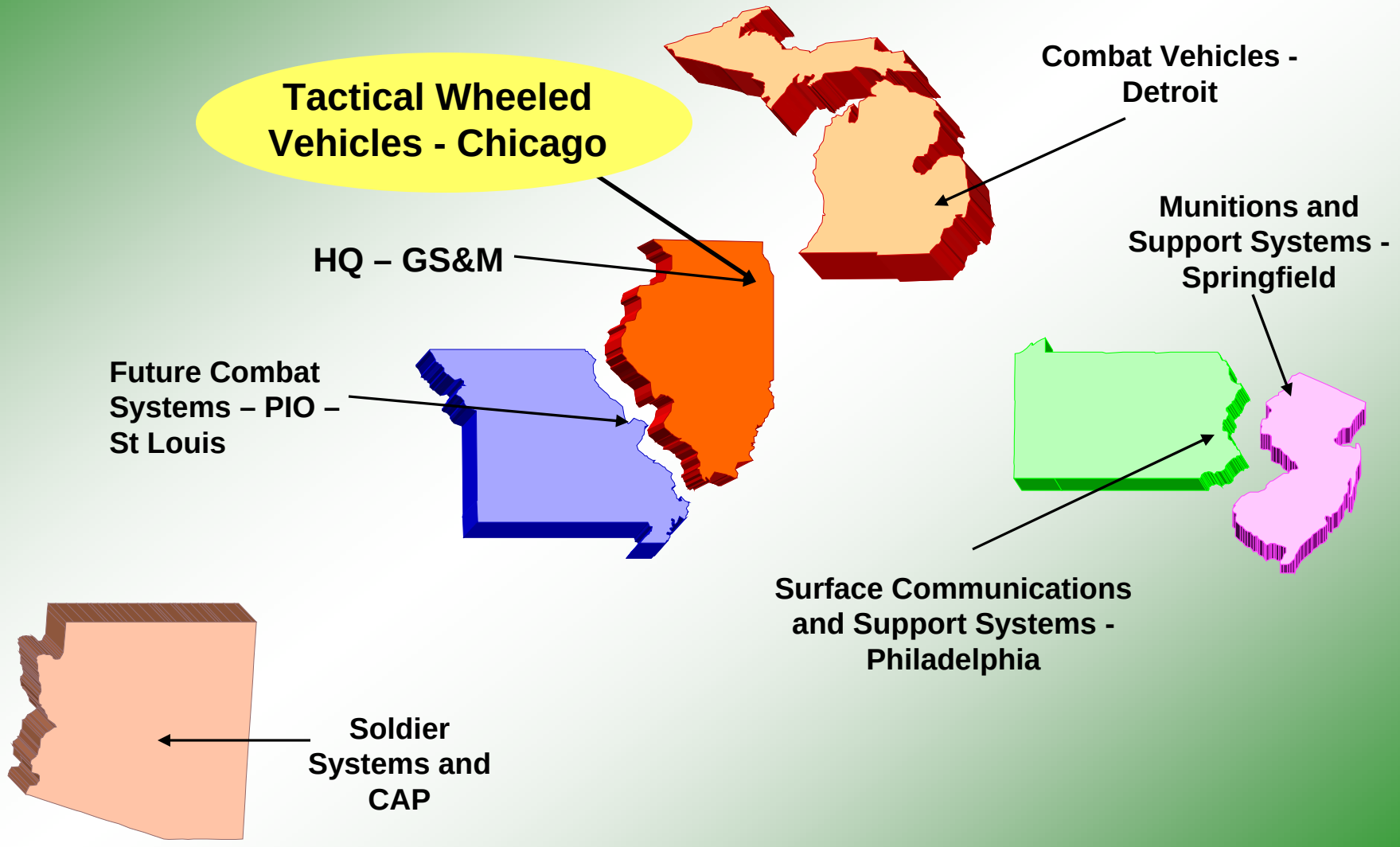
Vision

DoD's leading experts in Quality Assurance; Cost, Schedule, and Supply Chain Predictability; and Contract Administration; enabling our partners to achieve contract objectives.

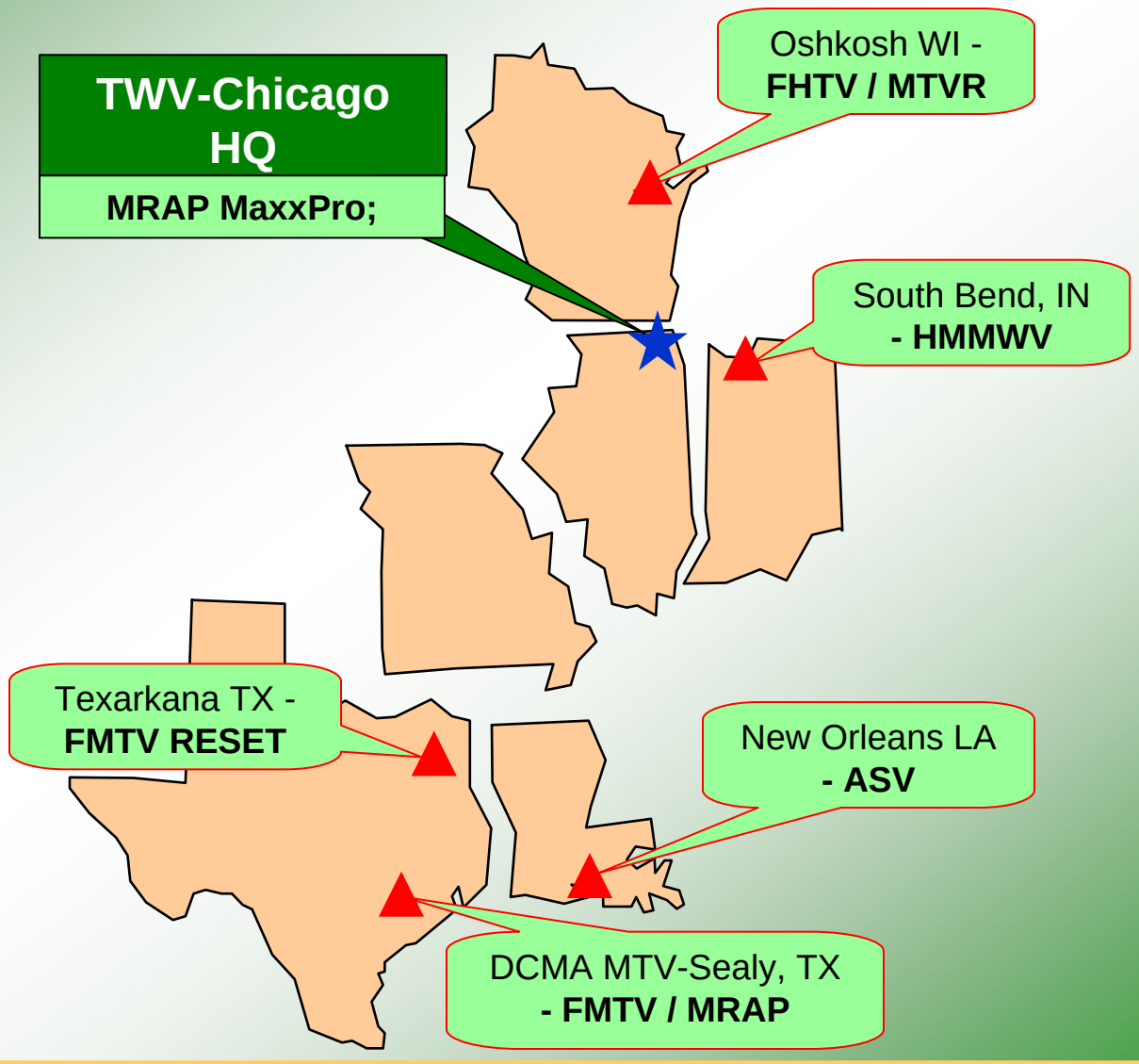
DCMA
Defense Contract Management Agency

Ground Systems & Munitions Division

Alignment by Product Lines



DCMA TWV-Chicago
Tactical Wheeled Vehicle Locations



DCMA
Defense Contract Management Agency

Challenges

- **Communication**
  - Information Flow
- **Supply Chain Management**
  - LSI vs. Manufacturing
  - Critical Components
  - Requirements Flowed Down to 2nd/3rd Tier Suppliers
  - Validation of 2nd/3rd Tier Suppliers
  - Inventory Errors
  - Labor Agreement Monitoring
  - DPAS
- **Process Issues**
  - Process Controls/Work Instructions
  - Training
  - Configuration Management
  - Out of Process work

DCMA
Defense Contract Management Agency

Working together

- **Government and Industry forming and maintaining appropriate relationships and teaming arrangements supported by robust communications are keys to success**
  - **Product IPT's**
  - **Weekly/Monthly status meetings**
  - **Early involvement in the acquisition process to assess capabilities and capacity**
  - **Mutually supportive production forecasts and schedules**
  - **Management Councils**
  - **Program Management Reviews (PMR)**

DCMA
Defense Contract Management Agency

Working together

- **Communication processes and systems that flow top down/bottom up including robust formal feedback mechanisms.**
- **Proactive surveillance of the purchasing and supply chain management systems to detect weaknesses or bottlenecks for meeting contractual production and delivery requirements.**
- **Flexibility in addressing new or unexpected workload to quickly move “resources” to where the work is (surge teams).**
- **Continued reevaluation of the inputs/controls used in manufacturing/assembly/test processes, to identify improvement opportunities.**
- **Establishment of a feedback loop that captures and tracks defects, shortages, configuration control issues from problem identification to final resolution.**

Successful Supplier Industry Practices

- **Philosophy: The new technology based concept is centered on the customer and is dynamic**
  - **Collaboration – Involves the interaction of key partners across the chain. including tiers of suppliers, manufacturers, distributors.**
  - **Development of Long term Alliances for preferred suppliers**
  - **Strategic Planning and Scanning**

    Systems in-place to spot events on the horizon that could cause spikes in the demand.

    Safe Stock- pre positioning of vital stocks in key national markets to minimize risk in uncertain environments.

The Quality Marathon; RESET, Rebuy and REFURB the TWV Fleet

Project Manager
COL Scott R. Kidd

Deputy PM Acquisition: **Tony Shaw**

(Acting) Deputy PM Logistics: **Tony Warrior**

MISSION

The lifecycle management of light, medium and heavy tactical vehicles & trailers enabling the Expeditionary Ground Force

OTHER SIGNIFICANT PROCUREMENT EFFORTS

- **Safety Enhancements**
- **Add-on-Armor/GPK**
- **Surge Support**

PRODUCT MANAGERS

- ***Light Tactical Vehicles***
  - **LTC Samuel Homsy**
    - **Steve Roberts**
- ***Medium Tactical Vehicles***
  - **LTC Alfred Grein**
    - **Jim Satchfield**
- ***Heavy Tactical Vehicles***
  - **LTC Allen Johnson**
    - **George Schneller**
- ***Armored Security Vehicle***
  - **LTC Moorhouse**
    - **Tamra Bouzide**

DIVISION CHIEFS

- ***Business Management***
  - **Mike Scharra**
- ***Acquisition Logistics***
  - **Ray McMillen**
- ***Engineering***
  - **Joe Keusch**
- ***PAT&E***
  - **Larry McNamara**

Major Platform Producer!
(New Production / RECAP / or RESET)

Light Tactical Vehicles
- *30 variants*
- *140K systems fielded*
  - *HMMWV Family of Vehicles*
  - *UAH Safety Enhancements*
  - *HEAT Trainer*
- *Trailer*

2,000(+) Sys/Month

Medium Tactical Vehicles
- *17 truck variants (3 Trailers)*
- *Over 35K systems fielded*
  - *Family Medium Tactical Vehicles (FMTV)*
  - *High-Mobility Artillery Rocket System (HIMARS)*
  - *Load Handling System (LHS)*

Caiman

ACAT IC

800(+) Sys/Month

Heavy Tactical Vehicles
- *33 variants (8 Trailers)*
- *Over 33K systems fielded*
  - *Heavy Expanded Mobility Tactical Truck (HEMTT)*
  - *Palletized Load System (PLS)*
  - *M915 Family of Vehicles*
  - *Trailer (HEMAT)*
  - *Heavy Equipment Transport (HETS)*
  - *Container Handling Unit (CHU)*

1,400(+) Sys/Month

Armored Security Vehicle
- *Over 1200 systems fielded*
- *978 Fielded to OCONUS Units*
- *AAO: 2776*
- *ASV Knight Chassis*
  - *AAO: 396*

48 Sys/Month

QA Challenges Abound!

"First Pass" quality becoming a DOD wide concern. Re-touch impacting production, delivery, cost, and Army capability sets. Common problems include:

- ***Supplier/Sub-Tier Surveillance of Product Quality by OEM***
  - *Quality at the component/sub-assembly level at question*
  - *Generating retro-fits and requiring "off-line" time costing more*
- ***Cost of Quality (as a reactionary approach) at the end because earlier mechanisms failed***
  - *Equate to Scrap, Rework, Problems arise when Training/MR/NETs are affected*

Platform Quality is a team sport! All prime and sub-contractors must improve practices and procedures. He doesn't have "Down-time"

PM LTV Activity

- ***Goal - Improved Supplier Quality***
  - *Participated in AM General Supplier Symposium Jul 08*
  - *Participate with AM General in high risk-supplier visits*
  - *Conduct periodic meetings with contractor/DCMA*
  - *Assigned Gov't QA Specialist to focus on OEM's supplier quality assurance*
  - *Using lessons-learned from supplier issues to focus Gov't and OEM efforts*
    - *Example: Welding Issues*
      - *Conducting increase weld audits; Result: Major rewrite of procedure*
      - *Conducted Gov't in-house basic welding class*

PM MTV Activity

- **Quality Initiatives**
  - Assigned QA Specialist to focus on OEM Supplier QA procedures
  - Collaborating with OEM on collection of cost categories that:
    - Measure scrap and rework (Failure Activities) cost
    - Promote measurements of
      - Prevention Activities
      - Appraisal Activities

To indicate where control points need to be placed

To 'Target' proper QA touch point.

BL – Well placed contractor surveillance activities in lieu of inspection at end prevents defects at end of line.

PM HTV Activity

- ***Repetitive Defects Elimination***
  - *Improved defect reporting and tracking system w/ several contractors that:*
    - *Tracks number of days open repair orders*
    - *Create link to Corrective Action Report (CAR)*
    - *Reviews of open issues (Joint Govt/Contractor)*
      - *Est. Guidelines for CAR reporting and closeouts*
      - *Est. Top Ten Issues list*
  - *Improved Communication among contractor, DCMA and PEO Quality*
    - *Inputs to DCMA issued CAR prior to closing*
  - *Incorporate Joint Govt/Contractor Road Test for Acceptance*
    - *Per contract language, "Shake Down"*
  - *Streamlined production control documentation into the Final Inspection Record (FIR) (OTC)*
    - *Utilized visual work instructions*
    - *Roving QA*

PD ASV Activity

- ***Minimize Defects***
  - *CONUS Fieldings*
    - *Ensured DCMA's FIR and deprocessing contractor's checklist were consistent*
    - *Shares AARs from CONUS deprocessing provided to DCMA/Contractor*
      - *PD ASV Quality directs DCMA/Contractor to conduct added surveillance on repetitive defects*
      - *Cost of Quality is tracked based on failed parts ordered from the field*
  - *In Plant*
    - *PD ASV directs DCMA to submit monthly situation reports to include*
      - *tracking/trending major/minor defects*
      - *(Repetitive Major defects initiates daily/weekly teleconferences with PD ASV, DCMA and Contractor reps; SITREPS are submitted daily until investigation is completed and issue is resolved)*
      - *Open Corrective Action Reports (CARS)/Product Quality Deficiency Reports/(PQDRs)*
      - *Vehicle acceptance/delivery*
      - *Uploaded on AKO and shared with Contractor*
    - *Reports uploaded on AKO and shared with Contractor*
  - *Subcontractor Surveillance Efforts*
    - *DCMA will issue Letters of Delegation (LODs) to Prime contractor's subs as needed (2 have been issued to date)*
    - *Developed contract language to ensure subcontractors are compliant with approved Prime contractor's Quality System*

Why is this important?

	TOTAL QTY +	Acquisition Objective	# IN OIF/OEF & % of Fleet	Average Age	Annual Peacetime Mileage	Annual OIF/OEF Mileage
Up-Armored/Armor-Ready HMMWVs (M1114, M1151, M1152, M1165)	*29,549*	*59,253*	*25,930 –87%*	*3.7*	*1,651*	*10,502*
HMMWVs (all other variants)	*106,901*	*106,901*	*1771 – 1.6%*	*14.4*	*2,035*	*3,755*
FMTV 2.5 Ton LMTV *FMTV 5 Ton MTV*	*17,427* *19,651*	*83,185* *(Medium Fleet)*	*4476 - 12%*	*7.2*	*1,930* *1,502*	*1,628* *1,963*
M939, 5 Ton Series Truck	*26,307*	*Combined into Medium Fleet Total Above*	*2451 – 9.3%*	*18.7*	*1,387*	*959*
HEMTT	*13,513*	*31,203*	*1831 – 13.5%*	*17.3*	*1,700*	*3,306*
Palletized Load System (PLS)	*4,992*	*7,255*	*1052 - 21%*	*10.5*	*1,617*	*1,760*
HETS (M1070)	*2,012*	*2,146*	*568 - 28%*	*10.3*	*1,184*	*12,039*
M915, Line Haul Tractor	*6,511*	*9,871*	*1319 – 20.2%*	*12.4*	*3,794*	*20,211*
Light Trailers	*28,382*	*44,275 (M1101/M1102 only)*	*4,000 – 14%*	*23.1*	*Various*	*Various*
Medium Trailers	*55,167*	*38,242*	*4433 – 8%*	*33.3*	*Various*	*Various*
Heavy Trailers	*10,686*	*29,014*	*2,473 – 29%*	*20.5*	*Various*	*Various*

Because, we've got to be ready to go again (with less $)!

What about these?

Lost Configuration Management

Refurb to what?

Take Aways

- ***Quality Surveillance***
  - *Job1 – Everyone – Every Tier, From Material Yard to Test & Acceptance*
  - *Team Sport, need to get it done right, 'First Pass'*
  - *Rework cost $, future budgets will provide no flex.*
- ***REFIT/REFURB***
  - *Stressed Fleet is real, resources will not stay at peak levels.*
  - *Catch-up Game – Continuous Quality Surveillance Process, needs to be "lean" but "assured"*
  - *High reduction #'s since '05, provide ample seed assets!*

The Army expects it! ARFORGEN Demands it!