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TACOM LCMC...Understanding and Combating Aging

24 October 2009

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The Environment

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TACOM LCMC

Mission / Product Lines / Magnitude

Develop, acquire, field, and sustain Soldier and ground systems for the Warfighter through the integration of effective and timely Acquisition, Logistics, and cutting-edge Technology

What we do (Core Competencies):

- Research, Development, Engineering
- Acquisition / Program Management
- Logistics, Industrial Operations, and Contracting

The Magnitude:

- 141 Allied Countries Own TACOM Equipment
- Every Army Unit has TACOM Equipment
- Approximately 3000 Fielded End Items
- 29,000 Components

The TACOM LCMC Product Lines:

- Combat Vehicles
- Trailers
- Materiel Handling Equipment
- Fuel & Water Dist Equipment
- Chemical Defense Equipment
- Howitzers
- Commercial Vehicles
- Tactical Vehicles
- Construction Equipment
- Sets, Kits & Outfits
- Shop Equipment
- Large Caliber Guns
- Watercraft
- Mortars
- Aircraft Armaments
- Rail
- Fuel & Lubricant Products
- Rifles / Machine Guns
- Soldier Equipment
- Tactical Bridges






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Equipment Condition vs Causes

Condition

- Well Used = High miles/hours
- Rust & Corrosion issues
- Obsolescence issues
- Damage or degradation
- Multiple Configurations

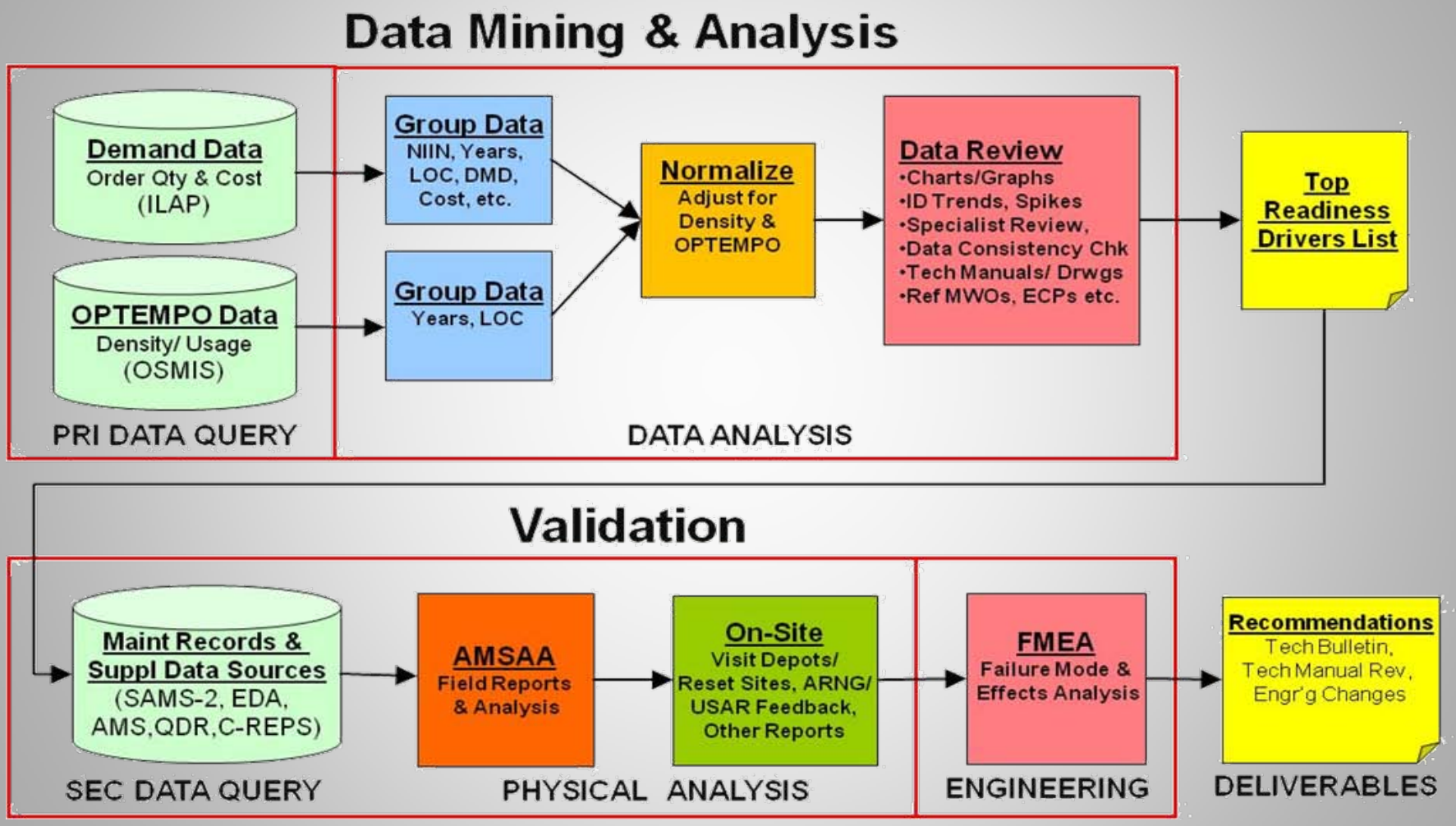
Causes

- Age, deployments, optempo, multiple users
- Exposure to unexpected & extreme conditions (caustic elements & long term storage)
- High Demand, transportation, return & repair, funding constraints
- Age, Technology and Industrial Base influences
- Environmental developments and considerations
- Long term wear influences (cracks/stress)
- Some existing equipment will not be included with the future force
- Multiyear acquisitions/support strategies/policy guidance

Delayed Desert Damage & Degradation Program (4D)

- Look at effects of extended SWA Operations on TACOM equipment; maintenance actions to reduce environmental impacts
- Data mine/analyze Logistics Information Warehouse and related data sources; and identify and investigate candidate and frequent, high-cost critical demand components
- Complete Failure Modes and Effects Analysis (FMEA), Root Cause Analysis, and Evaluation/Recommendations
- Utilize AMSAA Sample Data Collectors, Depot Reset, Army, and Reserve activities in identifying demand drivers

4D Process Overview



4D Process Observations

- Surprisingly, equipment reliability improved while used as a result of increased attention and maintenance
- The 4D process identified actual versus perceived causes of equipment failures
- The biggest impact to equipment condition related to deployment was related to corrosion damage occurring during re-deployment prep and long term storage

What Is RESET?

Restoring units returning from a theater of operations to a desired level of combat capability based on mission requirements & available resources.

GOAL: Assets available for "Next Deployers"

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Forms of RESET

Since Time & Money are limited… there are several options available to "Reset" Army Units with TACOM equipment:

PROCUREMENT

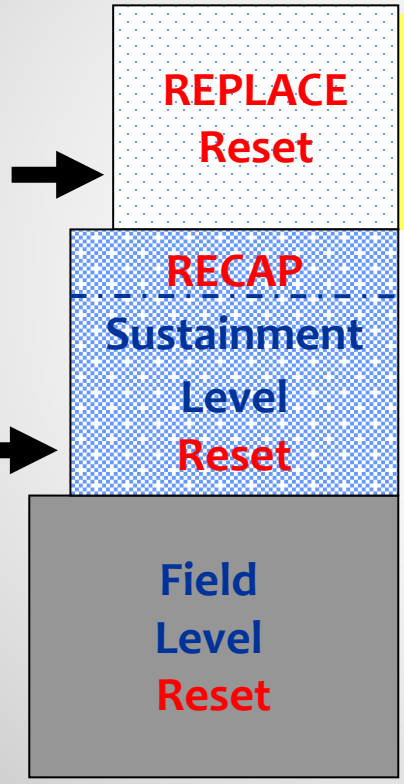
New Procurement to Cover Battle Losses & Washouts

MAINTENANCE

Major Repair of Damaged & Stressed Vehicles

Inspection & Minor Repair (10/20 + 3D)

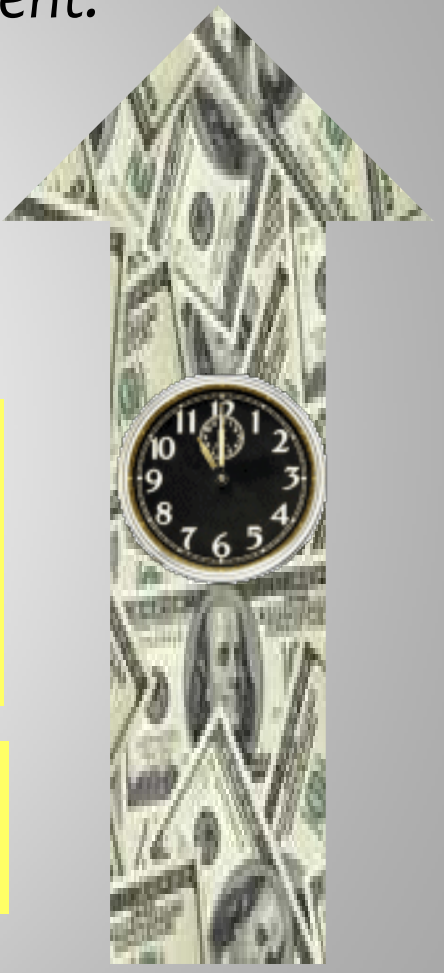
Maintain Left Behind Equipment (LBE)



Industrial Base (Depots/Arsenals) & Original Equipment Manufacturers

Industrial Base (Depots/Arsenals), DOLs National Contractors & In-Theater Repairs

Unit Motor Pools, DOLs & FLRCs, Regional Contractors



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TACOM FLEET REPAIR FORECAST MODEL

SOURCE OF REPAIR AVAILABILITY CONSIDERATIONS:

Manpower
Scheduling / Time
Funds
Parts

UNIT LEVEL

Unit determines what their Soldiers can do in the Motor Pool

FIELD LEVEL

(DOLs/FLRCs/ Local & Regional Contractors)

Same Standards for ANY site conducting **Field Level** Repairs

SUSTAINMENT LEVEL

(Depot/National Contractors) DOLs

Same Standards for ANY site conducting **Sustainment Level** Repairs

Goal = CONSISTENT Quality

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SARET

SARET-R supports the following standard small arms and crew-served weapons:

- **M9 Pistol**
- **M16 Rifle**
- **M4 Carbine**
- **M203 Grenade Launcher**
- **M249 Machine Gun**
- **M240 Machine Gun**
- **M2 Machine Gun**
- **MK19 Grenade Machine Gun**
- **M296 Machine Gun (Kiowa) (dismounted)**
- **M500 Shotgun**
- **M107 Sniper Rifle**
- **Mortars and mounts: 60mm, 81mm, 120mm (tubes and ground mounts only)**

Small Arms Readiness Evaluation Team w/Repair (SARET-R)

FY 09	**Missions Completed**	**52**
	Weapons Inspected / Repaired	**172,431 / 171,348 (99%)**
	Weapons Requiring Depot Repair	**2,065 (1.20%)**
FY 10	**Missions Planned / Completed**	**57 / 2**
	Weapons Scheduled / Completed	**189,209 / 8,719**
	Weapons Inspected / Fully Mission Capable	**8,719 / 8,570 (98%)**
	Weapons Requiring Depot Repair	**113 (1%)**
FY 04-10	**All SARET Missions / Weapons**	**216 / 615,042**

SARET-O

Supports the following standard weapon optics:

- M68 Sight, Reflex
- M145 Machine Gun Optic
- M203 Day Night Sight
- XM150/Advanced Combat Optical Gun Sight
- M22 Binoculars
- M24 Binoculars
- M25 Stabilized Binoculars
- M151 Spotting Scope

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CBERT

Supports the following Chemical Detection Equipment (CDE) systems:

Individual Protection

- ❑ M40 Mask
- ❑ M42 Mask
- ❑ M45 Mask
- ❑ M48 Mask

Contamination Avoidance

- ❑ Improved Chemical Agent Monitor (ICAM/CAM)
- ❑ M22 ACADA

Decontamination

- ❑ M17 Decon Apparatus

Organizational Clothing and Individual Equipment (OCIE)

Mission: To replace organizational clothing and individual equipment (OCIE) worn or destroyed during deployments in order to allow units to flow smoothly through the ARFORGEN readiness cycle using CMO and RFI.

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Force Provider

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Condition

- The entire fleet (53 modules) is deployed or in the process of deploying
- 15 are being reviewed as washouts
- Approximately half of remaining 38 are newly deployed and in average condition
- The remainder are nearing the end of their useful life and are in very poor condition

Contributing Causes

- Age and a lack of operator level maintenance are the prime drivers of the condition
- Force Provider Modules, once established on a FOB, become akin to a common utility
- Not much attention is paid to the daily maintenance
- As modules are moved, many components are pilfered, or otherwise re-tasked
- This item is a non-reportable item that consists of several thousand lines
- It is large enough and complex enough that no one is maintaining it as a system
- The end result is poor material condition

Corrective Actions

- TACOM has received additional direct theater support funding to improve material conditions and accountability in theater
- We, in conjunction with PM-FSS, have established a forward support area and are working closely with CJTF-82 and USFOR-A to identify, repair, and reuse material as efficiently as possible
- The intent is to manage the use of the materials and leverage the LOGCAP contractors for maintenance
- Force Provider requested a WSR through DA but did not make the priority list
- We are working to ensure it is reviewed in the AMC internal WSR.

Issues/Challenges

- Return of assets for induction… Force Provider Base-camp Materials (Tents, Air Conditioners, Showers, latrines, etc…) are all highly desirable
- Units hold on to components and reuse them outside of the context of the module
- Limited material flow to Reset
- Result is that we have depleted the APS inventory
- TACOM is working closely with the deployed commands, DA and the R2TF to expedite any returned materials.