EQUIPMENT & LOGISTICS READINESS PANEL

Moderator: Mr. Mark Colley

Panel Member from ACC Detroit Arsenal: SES Mr. Dan Gallagher

Panel Member from Oshkosh Corporation: Mr. Mike Ivy

Panel Member from TACOM ILSC Transportation Systems: Ms. Susan Cashero

Panel Member from Michelin Corporation: Mr. Barry Bomier

Panel Member from TACOM ILSC CBM+ Program Director: Mr. Jason Duncan

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TWV Readiness & Sustainment

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TWV STATS: FEB 2020 Data

Major Item Overview:
- Over 594 LINs Managed – 1,141 Individual NSNs
- 37ea Organic Industrial Base (OIB) Programs

Secondary Item Overview:
- 2,352 Items Managed
- 1,147 Active / 1,288 Reparable
- Supply Availability (Overall: 1st – 2nd pass) / (NMCS: 1st – 2nd pass):
  - TWV Rollup – 95.4% - 96.4% / 96.5% - 97.7%
  - HTV – 85.7% - 87.6% / 84.1% - 88.9%
  - MTV – 100% - 100% / 100% - 100%
  - LTV – 95.7% - 96.9% / 99.8% - 100%
  - MRAP – 94% - 95.6% / 95.8% - 95.8%
  - Wheel Assemblies - 96.7% - 97.5% / 96.9% - 98.2%

- Repair:
  - 101 National Maintenance Programs
  - 101 Depot Programs

- Obligations: $265.73M YTD
  - FY19 Total: $478.72M

- Demands: $120.77M YTD
  - FY19 Total: $623.8M

- Sales: $184.47M YTD
  - FY19 Total: $662.4M

- Transition To Sustainment
  - Obsolescence (Tech)
  - DMSMS (Procurement)

- Reduce ALT/PLT

- Field Level Maintenance Optimization
Daniel J. Gallagher
Executive Director
Army Contracting Command - Detroit Arsenal (ACC-DTA)
NDIA Tactical Wheeled Vehicles Conference

Mike Ivy
Sr. Vice President
International Programs & Global Product Support

March 3, 2020
Oshkosh Corporation & Oshkosh Defense

Access

Commercial

Defense

Fire & Emergency

Heavy

Medium & MRAP

Light & ARFF
Performance Based Readiness Support

- Time definite delivery
  - Mission critical spares
  - Guaranteed global availability of readiness-drivers for new and legacy systems
  - Obsolescence management

- Requires a collaborative environment
  - Readiness issues
  - Maintenance and parts consumption data
  - Sharing of all collected usage information

- Impact on readiness
  - Improved readiness rates
  - Fleet maintenance opportunities
Government and industry collaborate to improve readiness and lower life cycle cost

- Maintenance as required vs. maintenance by interval
- Enables readiness at both truck & fleet levels
- Directed troubleshooting with Augmented Reality (AR)
- Failure intelligence
Equipment and Logistics Readiness

3 Mar 2020

Briefer: Susan Cashero
Overview

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• Director, Transportation Systems Product Support Integrated Directorate, TACOM-ILSC
  310 personnel located in Warren, Virginia, Kuwait, Japan, and Hawaii

• Fleets Managed:
  Heavy Expanded Mobility Tactical Truck (HEMTT) – multiple variants
  Palletized Load System (PLS)
  Heavy Equipment Transport System (HET)
  915 Tractor Line Haul
  Dump Truck
  Medium Tactical Vehicles
  Mine Resistant Ambush Protection Vehicles (MRAP)
  Route Clearance Vehicles
  Trailers (Flatbed, Lowbed, Flatrack)
  Army Watercraft Systems

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Challenges

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- Obsolescence
  - Axles
  - Mitigate through development of organic capabilities through creative means
- Extended Contract Award Lead Times
- Extended Contract Delivery Lead Times
- Low monthly Contract Delivery Quantities
- Repair Delays
  - Low unserviceable asset returns to feed organic repair lines
  - High washout
- Funding
Initiatives

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• Transparent Armor Re-lamination Effort
  • Leverage capability being developed by the USMC for use on Army systems
  • Possibility to develop and facilitate organic capability and/or commercial partnerships
  • Initial testing looks promising

• Innovative Contracting Initiatives
  • Long term, multi-item, multi-system contracts with OEM
Equipment & Logistics Readiness Panel

- **Time to Change the DoD Tire Strategy**
  - Maximize use of Commercial Distribution
  - Maximize use of Commercial Storage
  - Minimize Logistical Vulnerabilities

- **Forecast Indicators**
  - CL IX Funding
  - NTC Rotations
  - Fuel

- **CBM → Fleet Maintenance**

- **Product Field Data → Access to the Fleets**

- **Mobility Solutions & the Introduction of New Technologies**

- **Readiness → Artic/Winter Mobility**
TURNING DATA INTO ACTIONABLE INFORMATION

**Engine Parameters**
- Accelerator Pedal Position
- Barometric Pressure
- Boost Pressure
- Coolant Level
- Engine Coolant Temperature
- Engine Hours
- Engine Load
- Engine Oil Pressure
- Engine Oil Temperature
- Engine Percent Torque
- Engine Speed
- Fuel Rate
- Fuel Temperature
- Injection Control Pressure
- Intake Manifold Temperature
- Mileage
- Vehicle Speed
- Power Take Off (PTO) Mode

**Electrical System Parameters**
- Alternator Potential (Voltage)
- Alternator Speed
- Battery Potential (Voltage)

**Brakes Parameters**
- Front Axle Speed
- Relative Speed, Front Axle, Left Wheel
- Relative Speed, Front Axle, Right Wheel
- Vehicle Speed
- Brake Switch

**Transmission Parameters**
- Transmission Oil Temp
- Transmission Range Attained
- Transmission Range Selected
- Transmission Output Shaft Speed
- Input Shaft Speed
- Transmission Actual Gear Ratio
- Transmission Current Gear
- Transmission Selected Gear
- Torque Converter Lockup Engaged
CBM+ USE CASES

Enterprise/Big Army

PEO/PM

Condition Based
RESET

Component Fault Curves

FMECA

LCSP

MTA

NEOF

RCM

Sensor Strategy

LORA

Fleet Management

Readiness trending

Health & Usage Monitoring

Diagnostics

Readiness Assessment

PMCS

Quality Deficiency Evaluation

COTS vs Organic

Warfighter

RAM Modeling

CBM+ USE CASES

CBA  BCA

Predictive Maintenance

Fleet Management

Depots  EJS/IM

Tech Pubs  Sys Eng

RDECOM  RCM

GCSS ARMY  LMP  GEM

Warfighter

PMCS

Depots  EJS/IM

Tech Pubs  Sys Eng

RDECOM  RCM

GCSS ARMY  LMP  GEM
Direct impact to readiness and ROI

- Accurate & Autonomous OPTEMPO
- Enhanced Diagnostics
- Optimized Scheduled Services
- Warranty Claims
- Accident Reconstruction
- Fleet Management
- Log Product Updates
- Policy and Execution Order
Requirements Codification

Field the CBM+ capabilities to collect, transmit, store and analyze CBM+ at scale

Implement data-driven decision making and integrate within ERPs
Questions

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