“Need to be faster, more agile, less bureaucratic… Need to fight this every day”
AMC Strong Video
Mission

Provide superior technology, acquisition support and logistics to ensure dominant land force capability for Soldiers, the United States and our Allies.

“If a Soldier shoots it, drives it, flies it, wears it, or eats it, Army Materiel Command provides it.”

“Need to be faster, more agile, less bureaucratic… Need to fight this every day”
"Providing Support to the Joint Warfighter"

Avenues of Change

Transforming Army Materiel Command from an organization that is “Production-based, commodity-focused, and platform-centric” to one that is “Service-based, capabilities-focused, and unit-centric” for Persistent Conflict

<table>
<thead>
<tr>
<th>ORGANIZATIONAL CHANGE</th>
<th>CULTURE OF INNOVATION</th>
<th>COMPLEX SERVICES</th>
<th>KNOWLEDGE MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Life-Cycle Management Commands&lt;br&gt;• Army Field Support Brigades and Brigade Logistic Support Teams&lt;br&gt;• 2 Star Contracting Command&lt;br&gt;• Surface Deployment and Distribution&lt;br&gt;• Base Realignment and Closure (BRAC)&lt;br&gt;• Army Watercraft&lt;br&gt;• Central Issue Facilities&lt;br&gt;• Installation Maintenance and Ammunition&lt;br&gt;• Security Assistance</td>
<td>• Safety&lt;br&gt;• Lean Six Sigma&lt;br&gt;• Reset Parts Management&lt;br&gt;• Outreach to Industry&lt;br&gt;• Partnerships&lt;br&gt;• Performance Based Logistics&lt;br&gt;• Rapid Review Teams&lt;br&gt;• Research &amp; Development/Technology to the Warrior&lt;br&gt;• Informing the Requirements Process&lt;br&gt;• Army Greatest Inventions&lt;br&gt;• Human Capital Strategy</td>
<td>• Support to ARFORGEN&lt;br&gt;• MRAP Fielding/Sustainment&lt;br&gt;• Soldier as a System&lt;br&gt;• Ammunition Enterprise&lt;br&gt;• Forward Repair Activities&lt;br&gt;• Unit-focused RESET&lt;br&gt;• Small Arms Repair&lt;br&gt;• Left-Behind &amp;Theater Provided Equipment&lt;br&gt;• TRADOC Fleet Management&lt;br&gt;• LOGCAP IV Transition&lt;br&gt;• Industrial Capabilities Modernization&lt;br&gt;• Low Density Training Equipment&lt;br&gt;• Chemical Storage &amp; Demil</td>
<td>• Condition Based Maintenance&lt;br&gt;• Central Technical Support Facility (CTSF)&lt;br&gt;• Global Help Desk&lt;br&gt;• Depot IT Modernization&lt;br&gt;• AMC Enterprise Portal&lt;br&gt;• Sample Data Collection&lt;br&gt;• Factory-to-Foxhole Visibility&lt;br&gt;• Operations Center&lt;br&gt;• Single Army Logistics Enterprise&lt;br&gt;• Lessons Learned&lt;br&gt;• Quantitative Metrics and Analysis</td>
</tr>
</tbody>
</table>

End State

“Cradle-to-Grave Capabilities Support”

“Efficient Production Processes”

“Customer Focused Solutions”

“Data Driven Decisions”
Life Cycle Management Commands… Soldier Focused

Depots, arsenals, ammunition plants
TACOM, AMCOM, CECOM, CMA, JM&L

- Unity of effort between Acquisition, Research and Logistics
- Acquisition decision authority between Army Acquisition Executive and Program Executive Officers not affected

More Reliable Systems, Reduced Cost

Research, Development & Engineering Command

Future Capabilities


Logistic & Maintenance Lessons Learned

Solutions

Resources/Direction

Production and Fielding

Production Decision

Customers
- DOD and Dept of Army
- Combatant Commands
- Allies
- Coalition
- Other Services, NASA
- Dept Homeland Security

Feedback

Improvement Suggestions

Technology/System Improvements

Army Sustainment Command: AMC’s Face to the Field

Customers
Life-Cycle Management Commands & Army Sustainment Command

Integrating the Unit & Weapon System View to Deliver Warfighting Capability

ARMY MATERIEL COMMAND

HQ AMC Staff

AMCOM/LCMC
Aviation and Missile Life Cycle Management Command
- Acquisition
- Depot Maint
- Installation Armament
- R&D

CECOM/LCMC
Communications-Electronics Life Cycle Management Command
- Acquisition
- Depot Maint
- Installation Armament
- R&D

TACOM/LCMC
Tank-automotive and Armaments Life Cycle Management Command
- Acquisition
- Depot / Arsenal
- Installation Armament
- R&D

JM&L LCMC
Joint Munitions and Lethality Life Cycle Management Command
- Acquisition
- Ammo Plant
- Installation Armament
- R&D

SDDC
TRANSPORTATION

ASC
INTEGRATION

403rd AFSB
DAEGU, KOREA
407th AFSB
FT HOOD, TX
406th AFSB
FT BRAGG, NC
405th AFSB
Seckenheim, Germany
AMC FWD
SWA
KUWAIT

404th AFSB
FT LEWIS, WA

401st AFSB
AFGHANISTAN
AFSBn-AF
KUWAIT

402nd AFSB
ANACONDA, IRAQ

Face to the Warfighter – Unit Focus

Weapons Systems / Fleet Focus
Setting the Force
What We’ve Done . . . What We’re Doing

ARMY PLAN
The Army will undertake a disciplined, orderly reconstitution to restore combat power.

154,563 Small Arms
39,000+ Small Arms FY07

15,000+ Wheels FY07
15,058 Generators
7,400+ Generators FY07
18,673 Commo/Electric

2,754 Tracks
1,700+ Tracks FY07
28502 Wheels

2,440* Aircraft Scheduled
2,004* Completed

10,468 Missile Systems
10,468 Missile Systems FY07
29,709 Missile Rounds Reset
13.3K Short Tons Ammunition Processed for Reissue in South West Asia

9 Patriot Battalions
68 MLRS

(* Includes Reset & Recap)
# Army Vehicles

## Current Fleet

(Approximate Values)

<table>
<thead>
<tr>
<th>Ground Vehicles</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>HMMWV (Armored, Non-Armored)</td>
<td>135,699</td>
</tr>
<tr>
<td>FMTV Trucks (2.5 and 5 Ton series)</td>
<td>83,650</td>
</tr>
<tr>
<td>Heavy Expanded Mobility Tactical Truck</td>
<td>13,383</td>
</tr>
<tr>
<td>Palletized Load System</td>
<td>4,456</td>
</tr>
<tr>
<td>Heavy Equipment Transporter</td>
<td>2,012</td>
</tr>
<tr>
<td>Line Haul Tractor</td>
<td>7,859</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>247,059 Prime Movers</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Aircraft</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apaches</td>
<td>751</td>
</tr>
<tr>
<td>Blackhawks</td>
<td>1,684</td>
</tr>
<tr>
<td>Chinooks</td>
<td>420</td>
</tr>
<tr>
<td>Kiowa</td>
<td>350</td>
</tr>
<tr>
<td>UAS</td>
<td>2315</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>5,520 Aircraft</strong></td>
</tr>
</tbody>
</table>
MRAP Highlights

- Partnership is essential to Success
  - Maintain several variants simultaneously
  - Supply Chain Management

- Streamlined delivery of Capabilities is key
  - Continue use of “off the self technology”
  - No more long acquisition cycles
    (128 days for the MRAP)
  - Need to make this the standard

- What we need to Continue
  - Responsiveness to the Warfighter
  - Predictive technology applications
  - Sustainment across multiple generations of equipment
HOW DOES CBM WORK?

1. Embedded Sensors
2. Work Stations
3. Production Control Office
4. Data loaded into CBM Data Warehouse
5. Engineering Analysis to Determine Component Health and Remaining Life (Prognostics)

Key Enablers:
1. Embedded Sensors
2. Plane side diagnostics
3. Planned Maintenance
4. Data Fusion
5. Engineering Analysis

- Reduce Maintenance Cost
- Improve System Performance
- Applications for Air/Ground Platforms
  - Air = 359 with 3,344 downtime hours avoided/9409 maintenance manhours avoided
  - Saved ~ 18 T700 Engine Overspeeds
  - From Removal for Cost Savings of $9.8M
- Ground: plan for integration into all FCS variants; 1st CAV legacy fleet

Soldiers Perform Immediate Maintenance Actions

Actionable Maintenance and Supply Notifications
<table>
<thead>
<tr>
<th>Ongoing</th>
<th>Evolving</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Red River Army Depot</td>
<td>• Oshkosh Truck Company</td>
</tr>
<tr>
<td>– BAE: 9 partnerships valuing $5.7M</td>
<td>• Family of Heavy Tactical Vehicles</td>
</tr>
<tr>
<td>– Textron from Marine &amp; Land Systems: 2</td>
<td></td>
</tr>
<tr>
<td>partnerships valued at $290K</td>
<td>• Family of Medium Tactical Vehicles</td>
</tr>
<tr>
<td>• Letterkenny Army Depot</td>
<td></td>
</tr>
<tr>
<td>– BAE</td>
<td></td>
</tr>
<tr>
<td>• RG33 Series Mine Protected Vehicles</td>
<td></td>
</tr>
<tr>
<td>Valuing $1.1M</td>
<td></td>
</tr>
<tr>
<td>• New Medium Mine Protected Vehicle</td>
<td></td>
</tr>
<tr>
<td>value to be realized</td>
<td></td>
</tr>
</tbody>
</table>

The HEMTT provides transport capabilities for re-supply of combat vehicles and weapons systems.

<table>
<thead>
<tr>
<th>BAE</th>
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<tbody>
<tr>
<td>• Family of Medium Tactical Vehicles</td>
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</table>

<table>
<thead>
<tr>
<th>TMLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Armor Security Vehicle</td>
</tr>
</tbody>
</table>
2007 Shingo Prize Results

GOLD

Rock Island Arsenal – Joint Manufacturing & Technology Center
Forward Repair System (FRS)

Tobyhanna Army Depot
AN/TPQ-36 Firefinder Antenna

Red River Army Depot
HMMWV Recap

SILVER

Letterkenny Army Depot
HMMWV Recap

Red River Army Depot
Bradley Power-train

Red River Army Depot
HEMTT

Anniston Army Depot
FAASV

BRONZE

Aviation Center Logistics Command
AMCOM – Fort Rucker
TH-67 Creek C20J Engines

Letterkenny Army Depot
Power Generators

Corpus Christi Army Depot
H-60 Pavehawk

Anniston Army Depot
M1 Abrams Turbine Engines
Thoughts I want to Leave You With

• AMC’s mission is to provide direct support to the Warfighter
  – Synergy gained through LCMCs
  – *Face to the Field* with ASC and AFSBs
  – Real-time/coordinated transportation through SDDC
  – Continuous supply and re-supply through Depots and Arsenals utilizing refined/Lean methodologies

• Partnering with Private Sector is a *Win-Win*
  – Teaming: Inside / Outside Depots
  – Reliant on our relationship with industry

• Future presents us with both challenges and opportunities
  – Resources
  – Technology
  – Efficiency
BACK UP SLIDES
Army Field Support Brigades (AFSB) and Contracting Support Brigades (CSB)

Commanders

COL Rob Sorensen
402nd AFSB
ANACONDA, IRAQ

COL Dennis Thompson
401st AFSB
SWA (deployed in Afghanistan)

COL Joseph Bass
409th CSB
SWA

COL Bobby Pinkston
405th AFSB
SECKENHEIM, GE

COL Andre Fletcher
403rd AFSB
DAEGU, KOREA

COL Mario Coronel
407th AFSB
FT. HOOD, TX

COL Steven Risley
404th AFSB
FT. LEWIS, WA

COL Daniel Cottrell
411th CSB
Korea

COL Ted Harrison
410th CSB
The Americas

COL Kristin French
406th AFSB
FT. BRAGG, NC

COL Andre Fletcher
403rd AFSB
DAEGU, KOREA

COL Joseph Bass
409th CSB
SWA

COL Mario Coronel
407th AFSB
FT. HOOD, TX

COL Steven Risley
404th AFSB
FT. LEWIS, WA

COL Daniel Cottrell
411th CSB
Korea

COL Ted Harrison
410th CSB
The Americas

AFSBs…Integrating Field Support with Acquisition, Logistics, and Technology
Condition Based Maintenance (CBM) for Ground Vehicles

• CBM is a proactive equipment maintenance capability that utilizes system health indications to predict functional failure beforehand and take action.

• Implementation will:
  – Provide prognostics and diagnostics
  – Improve fleet management
  – Provide users, maintainers, and commanders with near real time data of vehicle operation and usage severity

• Initially will field limited number of CBM boxes on tactical wheeled vehicles

• CBM will link data with actual maintenance actions (i.e., part replacements)

• Need to leverage industry efforts:
  – Industry telematics initiatives (onStar, ePulse, Aware)
Condition Based Maintenance (CBM) for Ground Vehicles

**KNOWLEDGE MANAGEMENT**

**Maintenance Aid**
- Specialized software and/or hardware (laptop)
- To assist in maintenance management, troubleshooting, parts ordering, status

**Embedded Diagnostics and Prognostics**
- Software that integrates all the information to identify impending failure, order parts

**ERP**
- Enterprise Resource Planning

**STAMIS**
- Global Combat Support Systems Army

**GCSS-A Interface**
- Standard Army Management Information

**Crew Display**
- Crew Status...Health

**Data Bus**
- IETM

**Reasoner**
- Data Base

**C2 System**
- Track health and status of installed components

**Antenna**
- Fuel Status

**Ammo sensors**
- Automatic Identification Technology

**Fuel sensor**
- Subsistence Status

**H20 sensor**
- Water Status

**Sensors**
- Supply Status

**Maintenance Aid**
- Crew Indications (Operator’s Station)

**Ammunition Status -QTY by type**
- Interactive Electronic Technical Manuals (software) to troubleshoot, test, document, report

**Serial Item Management**
# 2007 Shingo Prize Results Highlights

<table>
<thead>
<tr>
<th>GOLD</th>
<th>SILVER</th>
<th>BRONZE</th>
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<td>Rock Island Arsenal – Joint Manufacturing &amp; Technology Center</td>
<td>Letterkenny Army Depot HMMWV Recap</td>
<td>Aviation Center Logistics Command AMCOM – Fort Rucker TH-67 Creek C20J Engines</td>
</tr>
<tr>
<td>Forward Repair System (FRS)</td>
<td>Red River Army Depot Bradley Power-train</td>
<td>Letterkenny Army Depot Power Generators</td>
</tr>
<tr>
<td>Tobyhanna Army Depot AN/TPQ-36 Firefinder Antenna</td>
<td>Red River Army Depot HEMTT</td>
<td>Corpus Christi Army Depot H-60 Pavehawk</td>
</tr>
<tr>
<td>Red River Army Depot HMMWV Recap</td>
<td>Anniston Army Depot FAASV</td>
<td>Anniston Army Depot M1 Abrams Turbine Engines</td>
</tr>
<tr>
<td>Rock Island Arsenal – Joint Manufacturing &amp; Technology Center</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Shingo Award Notes

- Owner: G-4/7/9 Validated by: XO: Hilton Mills, 703-806-9226
  SME: Steve Miller, 703-806-9247

- 2007 - 12 Shingo Prizes awarded to AMC (in 2007, only 4 others awarded outside the Army in DoD)

- Rock Island Arsenal – Jt. Manufacturing & Technology Center
  Forward Repair System (FRS)
  Reduced Flow Time from 265 to 62 days
  Reduced Work In Process from 32 to 13 units
  Cost savings/avoidance of $4.8M

- Tobyhanna Army Depot
  - AN/TPQ-36 Firefinder Antenna
  Reduced Repair Cycle Time from 514 days to 429 days
  Reduced Work In Process from 16 per month to 11 per month
  Increased production from 1 to 15 systems

- Red River Army Depot
  - HMMWV Recap
  Increased production from 3 vehicles per month in 2004 to 32 vehicles per day since February 2006
  Produced 65 additional vehicles at no additional cost in FY06
  Cost avoidance of $3.89M

- Letterkenny Army Depot
  - HMMWV Recap
  Increased throughput to 17 vehicles per day
  Reduced direct labor hours from 274 to 150
  Produced 27 additional vehicles at no additional cost a $5.2M customer benefit

- Red River Army Depot
  - Bradley Power-train
  Reduced man-hours from 56.5 to 32.5 per unit
  Increased output from 2 units to 6 units per day
  Reduced lead time from 7 days to 3 days per unit

- Rock Island Arsenal – Jt. Manufacturing & Technology Center
  - Shop Equipment Contact Maintenance (SECM)
  Reduced flow time from 82 to 41 days
  Reduced work in process from 40 to 15 units
  Cost Savings/Avoidance of $4.9M

- Red River Army Depot
  - Heavy Expanded Mobility Tactical Truck (HEMTT)
  Productivity improved from 1530 hrs/vehicle to 1011 hrs/vehicle
  Increased output from 2 vehicles/wk to 2 vehicles per day
  Decreased lead time from 120 days to 30 days

- Anniston Army Depot
  - Field Artillery Ammunition Support Vehicle (FAASV)
  Increased total units produced from 52 to 88
  Decreased overtime hours per unit from 99.4 hrs to 59.52 hrs
  Decreased direct labor hours per unit from 341 hrs to 294 hrs

- Aviation Center Logistics Command AMCOM – Ft. Rucker
  - TH-67 Creek C20J Engines
  Reduced cycle lead time from 294 to 213 hrs.
  Reduced shop backlog from 30 engines to 0
  Reduced engine faults from 105 to 72

- Letterkenny Army Depot
  - Power Generators
  Increased output from 118/mo to 500/mo
  Labor Savings since April 2006 is 83,349 man hours and $2.9M

- Corpus Christi Army Depot
  - H-60 Pavehawk
  Reduced Turn Around Time from 180 to 109 days
  Reduced average direct labor hrs by 3,324/aircraft
  Reduced the per unit loss from $490K to $133K

- Anniston Army Depot
  - M1 Abrams Turbine Engines
  Reduced assembly time from 364 to 232 min.
  Consistent 100% on-time delivery
  Cost savings of $18.4M

- INTERNATIONAL ORGANIZATION FOR STANDARDIZATION
  - ISO-CERTIFIED AMC INDUSTRIAL FACILITIES As of 20 Sep 07

  - Corpus Christi Army Depot
  - Lone Star Army Ammunition Plant
  - Letterkenny Army Depot
  - McAlester Army Ammunition Plant
  - Sierra Army Depot
  - Milan Army Ammunition Plant
  - Tobyhanna Army Depot
  - Radford Army Ammunition Plant
  - Toole Army Depot
  - Riverbank Army Ammunition Plant
  - Red River Army Depot
  - Scranton Army Ammunition Plant
  - Hawethorne Army Ammunition Plant
  - Watervliet Arsenal
  - Holston Army Ammunition Plant
  - Pine Bluff Arsenal
  - Iowa Army Ammunition Plant
  - Kansas Army Ammunition Plant
  - Letterkenny Munitions Center
  - Lake City Army Ammunition Plant

- AS 9100: International Aerospace Quality Systems Standards
  - Corpus Christi Army Depot

  - Letterkenny Army Depot
  - Tobyhanna Army Depot
  - Iowa Army Ammunition Plant
  - Milan Army Ammunition Plant
  - Riverbank Army Ammunition Plant
  - Scranton Army Ammunition Plant
  - Radford Army Ammunition Plant