Fiscal Year 2009 National Defense Authorization Act, Section 322

Study of Future DoD Depot Capabilities

Update for the DoD Maintenance Symposium
Monday October 26, 2009
Phoenix, Arizona
Goals For Today

• Set a context for the NDAA 322 Study – Situation, Risk, Analysis

• Review the NDAA 322 study requirement and status

• Provide insight into the study and its data structure

• Offer some preliminary topical areas for discussion¹

• Discuss path forward

¹All data provided in this brief is for Maintenance Symposium discussion purposes only.
Situation

- Force drawdown in Iraq and build-up in Afghanistan
- New “baseline” level of global operations
- Pressure on budget
- Acquisition strategies with commercial lead/PBLs
- Weapon systems/equipments composition changes

Risk
The committee believes that when wartime operations in the Republic of Iraq and the Islamic Republic of Afghanistan cease, and supplemental appropriations for depot-related maintenance are reduced, DOD depots must not return to the post-Cold War environment where public- and private-sector facilities fought for limited available workload to the detriment of both.

Risk

• Funding reduction leads reqmt reduction
  Optempo
  Reset
• Baseline program not resourced properly within budgets
• Downsized defense industrial base
• Change in level and role of contractors

Readiness
Organic vs. Contract Costs

Total depot costs have more than doubled in the past decade; Organic and contract costs have grown proportionate to total.

<table>
<thead>
<tr>
<th>$ Billions</th>
<th>FY00</th>
<th>FY06</th>
<th>FY08</th>
<th>% Growth FY00-FY08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Depot Cost</td>
<td>$15.0</td>
<td>$27.3</td>
<td>$30.5</td>
<td>103.3%</td>
</tr>
<tr>
<td>Organic Cost</td>
<td>$8.5</td>
<td>$14.5</td>
<td>$16.2</td>
<td>90.2%</td>
</tr>
<tr>
<td>Contract Cost</td>
<td>$6.5</td>
<td>$12.8</td>
<td>$14.3</td>
<td>120.5%</td>
</tr>
</tbody>
</table>

Source: DoD 50/50 Reports
Analysis: 322 Study Requirement

• Assess

  Capability and efficiency of DOD depots to provide logistics capabilities and capacity necessary for national defense in post-reset environment

  Statutory and governance framework

• Execute via independent assessment
322 Study Requirement

- Describe
  
  Current and anticipated future depot maintenance requirement

- Recommend
  
  Requirements to maintain an efficient and enduring DOD depot capability
  
  Changes to law
  
  Methodology for determining core logistics requirements, including an assessment of risk
  
  Business rules that would incentivize the Secretary of Defense and the Service Secretaries to keep DOD depots efficient and cost effective, including the workload level required for efficiency
  
  Strategy for enabling, requiring, and monitoring the ability of the DOD depots to produce performance-driven outcomes
322 Study Approach

• 2 Phases
  
  Research and data collection (12 months)
  Analysis and report (10 months)

• Milestones
  
  Interim Report to Congress
  • Analytical foundation of current environment
  • Due December 2009

  Final Report to Congress
  • Direct input from SECDEF, Service Secretaries, etc.
  • Future environment, findings and recommendations
  • Due October 2010
**322 Study Approach: Phase One**

- Phase I sequenced into 3 stages of activity – each with a specific goal

**Stage 1**
- **Goal:** Socialize and vet a study approach that supports robust quantitative review – release data call

**Stage 2**
- **Goal:** Leverage the data construct and associated observations to focus on key topical areas

**Stage 3**
- **Goal:** Work with POCs to ensure data is valid and supports evolving observations

---

*The quantitative framework will provide background for qualitative recommendations*

---

*Interim Report to Congress*
- Analytical framework
- Current depot maintenance environment

**December 09**
322 Study Focus

All DoD Depot Maintenance Work

Major Study Focus: Organic Depot Maintenance at Traditional Depot Locations

Some Focus: Depot Maintenance performed at Non-traditional Locations (mostly organic)

Less Focus: Depot Maintenance at Traditional Commercial Locations

ORGANIC MAINTENANCE DEPOTS

COMMERCIAL MAINTENANCE DEPOTS (dual source work)
For study purposes, the aspects of DoD depot maintenance are described by these characteristics.

- Characteristics of the requirement for depot maintenance
  - Historical & projected
- Characteristics of depot maintenance workload execution
  - Historical & projected
- Characteristics of the product(s) of depot maintenance
  - Historical & projected

These characteristics are revealed by collecting and analyzing selected depot maintenance data.

Study horizon FY01-FY15
Model for Structuring Data on These Characteristics

Requirement for DoD Depot Maintenance

Execution of Depot Maintenance Work

Delivery of Depot Maintenance Products & Services

Characteristics are described by data

weapon system inventory data

process data

product data
Data and the Analytical Framework

General Issues
- Document and Assess Current Depot Environment
- Address Life-Cycle Maintenance Strategies and Implementation Plans
- Identify Actions to Prepare for an Efficient and Enduring Depot Maintenance Capability

Derivative Issues
- Describing the Full Scope of Existing Depot Maintenance Activity and Resources Applied
- Identifying and Assessing Ongoing and Planned Initiatives to Efficiently Meet Future Depot Maintenance Requirements
- Identifying Required Future Capability and Capacity

Data
- W/S Inventories
- Workforce
- Workload
- Capability
- Equipment
- Capacity
- Financials
Analytical Framework

ISSUE TOPICS

- Operational environment & OPTEMPO
- Maintenance consolidation & forward positioning
- Workload projection & business operations
- Commercial depot support; PPP
- Life cycle product support; PBL; RCM; tech data; supply chain management
- Depot IT systems; workload management systems; ERP
- Workforce knowledge & skills
- Budgetary guidelines; financial reporting requirements
- Capital investment strategies
- Core capability determination
- 50/50 management
- Outcome-based performance objectives; performance-to-plan metrics
Data Structure and Issue Exploration

Data Assessment Hierarchy

Phase I
DESCRIPTION OF ENVIRONMENT
- Ops Tempo
- Forward-Based
- Depot Support
- Workload (Planned)
- Workload (Actual)
- New & Emerging
- Capacity
- Facilities
- Equipment
- Capability
- Workforce
- Training
- Financial

Phase II
IDENTIFY DATA-DRIVEN RELATIONSHIPS

SENSITIVITY ANALYSIS

Issue Topics
- Operational contingencies and organizational roles
- Applicable laws, regulations and business policies
- Depot Consolidation and forward positioning
- Business operations and workload projection
- Commercial support of depot maintenance
- Performance Based Logistics
- Public-Private Partnerships
- Life cycle product support strategies
- Supply Chain Management
- Condition Based Maintenance
- Reliability Centered Maintenance
- Proprietary Technical Data
- Maintenance information technology systems,
- Workforce skills
- Reporting requirements and budgetary guidelines
- Capital investment strategies
- Core capability determination
- 50/50 calculations
- Materiel readiness and performance goals
Preliminary Topical Areas
Depot Maintenance Spend Breakout

Percentage of spending

0% 20% 40% 60% 80% 100%

Work breakdown structure

Aircraft            Auto equip         Combat vehicles
Const equip        Elec & comm         Missiles
Ships              Ord weap & muns    GPE
All other

FY 1999  FY 2003  FY 2008
Depot Maintenance Spend Breakout – Organic and Contract
Depot Maintenance (O&M) and OCO

Depot Maintenance Funding FY 03-10

Baseline $85.37B 71%
OCO $35.86B 29%
Depot Workforce Characteristics

Career and Temporary Appointments Over Time

<table>
<thead>
<tr>
<th>Year</th>
<th>Career</th>
<th>Temporary</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>64036</td>
<td>696</td>
</tr>
<tr>
<td>2002</td>
<td>66441</td>
<td>982</td>
</tr>
<tr>
<td>2003</td>
<td>68531</td>
<td>828</td>
</tr>
<tr>
<td>2004</td>
<td>72628</td>
<td>1262</td>
</tr>
<tr>
<td>2005</td>
<td>73369</td>
<td>2493</td>
</tr>
<tr>
<td>2006</td>
<td>73241</td>
<td>2711</td>
</tr>
<tr>
<td>2007</td>
<td>71828</td>
<td>2955</td>
</tr>
<tr>
<td>2008</td>
<td>71363</td>
<td>3560</td>
</tr>
</tbody>
</table>
Depot Workforce Composition

2001 - Number of Depot Personnel in Age Categories

Total: 64,728

2008 - Number of Depot Personnel in Age Categories

Total: 74,923
Workforce and Spend Trends

- Total Spend: ($B)
- Depot Personnel: (#K)


Total Spend (2000): 10
Total Spend (2006): 20
Total Spend (2008): 25

Depot Personnel (2000): 60
Depot Personnel (2006): 70
Depot Personnel (2008): 75
Workload Composition

Reparable Items Workload as a Percentage of Total Depot Organic Workload

<table>
<thead>
<tr>
<th></th>
<th>Component Repair</th>
<th>End Item Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>$1,374.2</td>
<td>$3,825.8</td>
</tr>
<tr>
<td>Navy</td>
<td>$3,551.0</td>
<td>$2,349.0</td>
</tr>
<tr>
<td>Air Force</td>
<td>$2,311.0</td>
<td>$2,989.0</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>$44.2</td>
<td>$2,255.8</td>
</tr>
</tbody>
</table>
DoD Maintenance Contractors
OP TEMPO Notional Data Analysis Example

**SENSITIVITY ANALYSIS**
Impacts of changes in Op tempo on maintenance workload and funding requirements

**DATA-DRIVEN RELATIONSHIPS**
- Past operational usage to forecast estimates
- Operational usage to depot maintenance requirements, costs, and resources
- Operations to maintenance workload, skills, facilities and equipment utilization
- Operational usage to repair requirements forecasts and actual execution
- Operational usage to maintenance budgets
- Operational usage and in-theater depot level workload

**DESCRIPTION OF ENVIRONMENT**
- Major end item operational usage by Service, system and WBS
- Major end item past operational usage
- Major end item operational forecast estimates
- Major end item past operational usage – peacetime & wartime
- Metrics for usage by weapons systems/major sub-systems
- Group systems/major sub-systems by Service, type and WBS
Path Ahead

• Phase One
  – Continue to confirm data validity and understanding with Service POCs
  – Receive full data accuracy check by mid-November
  – Characterize analytical approach and current depot maintenance environment in Interim Report to Congress – due 23 December

• Phase Two
  – Develop comprehensive engagement plan January 2010
  – Collaborative approach will rely upon Service interface and stakeholder support for in-depth topical analysis

“an efficient and enduring Department of Defense depot capability necessary for national defense”
Back-up
## Phase I Site Visits

<table>
<thead>
<tr>
<th>Visit Dates</th>
<th>Locations/Accompanying POCs</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 – 24 July</td>
<td>FRC Mid-Atlantic, Norfolk NSY (CAPT Dan Peters), NAVICP (None), COMFRC (None)</td>
</tr>
<tr>
<td>3 August</td>
<td>Army Materiel Command (None)</td>
</tr>
<tr>
<td>10 – 14 August</td>
<td>Anniston Army Depot, Fort Rucker, Army Materiel Command (Angel Pastrana and Mike Fitzpatrick)</td>
</tr>
<tr>
<td>19 August</td>
<td>NAVSEA (CAPT Dan Peters/Steve Krum)</td>
</tr>
<tr>
<td>24 – 28 August</td>
<td>Puget Sound NSY (CAPT Dan Peters), Logistics Base Barstow (Rod Tafoya/Larry Davis)</td>
</tr>
<tr>
<td>8 – 11 September</td>
<td>Ogden ALC, HQ AF Materiel Command (Kelly Blakely), Logistics Base Albany, Marine Corps LOGCOM (Larry Davis)</td>
</tr>
<tr>
<td>16 September</td>
<td>Warner Robins ALC (Kelly Blakely)</td>
</tr>
<tr>
<td>Scheduled for</td>
<td>Port San Antonio</td>
</tr>
<tr>
<td>February 2010</td>
<td></td>
</tr>
</tbody>
</table>

**PORT SAN ANTONIO**