Acquisition Needs and Trends for the Coming Decade

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Some Broad Trends

- High, and growing unit costs
- Longer product realization cycles
- Non-state-of-the-art logistics
- Non-state-of-the-art business systems
- Cost for services are very high
- Inadequate military equipment reliability
- Large, and growing, operations and maintenance costs
Changes that are Driving Acquisition Reform Today

- **Domestic Economics**
  - Debt, Medicare, Social Security, Supplementals

- **Threat Changes**
  - Asymmetric warfare (bio, cyber, IEDs); world-wide terrorism; pandemics; weapons proliferation; rogue nuclear states

- **New Missions**
  - Homeland defense; missile defense; counterinsurgency; stability and reconstruction

- **Warfighting Changes**
  - Netcentric Warfare; Systems-of-Systems; Joint and coalition operations

- **Intelligence Changes**
  - Integrated data; open-sources; Language and culture understanding

- **China**
  - Future adversary or Econ. Competitor

- **Technological Changes**
  - Infor., bio, nano, robotics, high-energy lasers, etc.

- **Industrial Changes**
  - Horizontal & vertical integration; commercial high-tech advances

- **Globalization**
  - Rapid spread of Technology; multinational firms; foreign sourcing

- **Government Workforce**
  - Aging; wrong skill mix; judgment vs. rules; managers vs. doers

- **Recent “Scandals”**
  - Druyun, Cunningham, Abramoff, etc.

- **Isolationist Moves**
  - “Buy-American”; discourage foreign scholars; energy “independence”
Congress and DoD reacting: Some Current Activities

- **Quadrennial Defense Review** (February 6 -- Follow-ups initiated)
  - What we buy; how we allocate resources; how we buy

- **Defense Acquisition Performance Assessment** (report out in February)
  - Greater role for COCOMS, Service Chiefs; acquisition workforce development; focus on cycle time; etc.

- **SARA, Sect. 1423 Acquisition Advisory Panel** (report out in March)
  - “Reviewing all laws, regulations, and Government Policies”

- **Defense Science Board Task Forces** (reports coming out)
  - Summer Study on “Transformation”; others on Technology, ManTech, etc.

- **Congressional Legislation** (lots of proposals)
  - From “waste, fraud, and abuse” to “Buy American”
My “Top 8” Acquisition Reforms for the coming decade

1. Lower Cost Weapons
2. Speed from Demo. to Field
3. Continuous Option of Competition
4. Performance-Based Acquisitions
5. Modern Logistics
6. More Focus on Research
7. Enterprise Integration I.T. Systems
8. Transformation of the Government Workforce
1. Lower Cost Weapons

- Lower production and support costs are an R&D issue (they are “designed” in)

- Low-cost weapons must be part of the weapon’s “requirements”

- Likely smaller quantities require process innovation (e.g. multiproduct and/or dual use)

- Maximum use must be made of commercial subsystems, parts, software, etc.

- Platforms as “nodes” in net-centric operations (vs. platform-centric systems)

- Unmanned systems are much cheaper

- Use “force multipliers” for greater overall force effectiveness (e.g. distributed sensors, precision weapons, robotics)

The Unit Costs of current ships, planes, tanks, missiles, etc. is simply unaffordable in the quantities required -- Low cost weapons are the future!
2. Speed from Demo. to Field

- Adversaries rapidly get commercial stuff off the world market
- Must use “spiral development” (prove the technology, then rapidly apply it)
- Do prototyping to: 1) prove it works, 2) show it is useful, and 3) show it is producable and affordable
- Limit Development to 5 years

We can not be “technologically superior” militarily, nor can we afford developments that take one to two decades.
3. Continuous Option of Competition

- **Design teams** are the critical elements of the defense industrial base.
- Competition creates **innovation** while lowering costs (monopoly doesn’t).
- An **option** needed at all levels (primes and critical subs.).
- A growing concern is **vertical integration** -- especially regarding systems-integration contracts (government needs to be involved in “make or buy”).
- The **credible option** of competition (e.g. with an R&D award) is inexpensive and effective.

The data on the benefits of competition are overwhelming -- in obtaining higher performance at lower costs, due to product and process innovation.
4. Performance-Based Acquisitions

- Performance-based “requirements” (vs. design-based) and performance-based contracts (vs. compliance-based) give the contractor the opportunity to innovate

- Applies to products, services, and logistics

- Lots of “barriers” exist, and must be overcome (from cultural, to regulatory, to training)

- Incentives are the key to performance-based acquisitions

The data (in improved performance at lower costs) are overwhelming.
### Performance Based Logistics Availability and Response Time

<table>
<thead>
<tr>
<th>Navy Program</th>
<th>Material Availability</th>
<th>Logistics Response Time</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pre-PBL</td>
<td>Post-PBL</td>
</tr>
<tr>
<td>F-14 LANTIRN</td>
<td>73%</td>
<td>90%</td>
</tr>
<tr>
<td>H-60 Avionics</td>
<td>71%</td>
<td>85%</td>
</tr>
<tr>
<td>F/A-18 Stores Mgmt System (SMS)</td>
<td>65%</td>
<td>98%</td>
</tr>
<tr>
<td>Tires</td>
<td>70%</td>
<td>85%</td>
</tr>
<tr>
<td>APU</td>
<td>65%</td>
<td>90%</td>
</tr>
</tbody>
</table>
5. Modern Logistics

- Spend over $90 Billion/year; employ over 1 Million government people; have an inventory of approximately $67 Billion -- but do not do a world-class job, by any measure (response time, flexibility, cost, etc.)

- Logistics has been a major problem in Iraq (it is critical to 21st Century warfighting)

- The commercial world has integrated logistics data systems (DoD has over 600 non-inoperable systems; that also don’t link to finance, personnel, etc.)

The potential for dramatic improvement in performance with billions of dollars of savings must be realized -- and soon.
## Large Opportunity for Improved Performance at Lower Cost

<table>
<thead>
<tr>
<th>Process</th>
<th>DoD</th>
<th>Commercial Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Distribution</td>
<td>21 days (DoD average)</td>
<td>1 day (Motorola)</td>
</tr>
<tr>
<td>(for in-stock items)</td>
<td></td>
<td>3 days (Boeing)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 days (Caterpillar)</td>
</tr>
<tr>
<td>Repair</td>
<td>4-144 days (DoD average)</td>
<td>3 days (Compaq)</td>
</tr>
<tr>
<td>(cycle time)</td>
<td></td>
<td>14 days (Boeing electronics)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14 days (Detroit Diesel)</td>
</tr>
<tr>
<td>Repair</td>
<td>8-35 days (Army tank/truck)</td>
<td>1 day (Compaq)</td>
</tr>
<tr>
<td>(shop time)</td>
<td></td>
<td>10 days (Boeing electronics)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 days (Detroit Diesel)</td>
</tr>
<tr>
<td>Procurement</td>
<td>88 days (DLA)</td>
<td>4 days (Texas Inst.)</td>
</tr>
<tr>
<td>(administrative lead time)</td>
<td></td>
<td>0.5 days (Portland General)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Minutes (Boeing, Caterpillar)</td>
</tr>
</tbody>
</table>

Some of this data are from 1996 DSB report.
6. More Focus on Research

- R&D resources (in government and industry) have been shifting to Development

- Need far more research in areas of “disruptive” technologies (e.g. high-energy; robotics; advanced kinetics; nanotech; etc.)

- The current moves toward “isolationism” (e.g. “Buy American”; restrictions on non-U.S. scholars doing research in America; increased security restrictions) hurt us far more than we gain

- Serious research on Acquisition Reform is also needed

This area (research) is America’s long-term military and economic future -- we can not afford to “eat the seed corn”, as we are increasingly doing.
7. Enterprise Integration I.T. Systems

- Most corporations have it today; it is inexcusable that the DoD doesn’t (Instead, the DoD currently has 4,700 non-interoperable business systems!)

- Efforts to date have met with huge resistance

- The system must have access to data on: personnel, material, finance, procurement, real property, logistics, supplies, medical

- It must be COTS-based (if DoD processes need to change, so be it)

A new Agency has been formed to achieve Enterprise Integration – the DoD must join the information age.
8. Transformation of the Government Workforce

- The long-term policy should be:
  - use military people for military functions only
  - use civilian government personnel for inherently-governmental functions only
  - use civilian contractors, based on competitive awards, for all other functions

- We need to move quickly in this direction (allowing government civilians to bid competitively on work they are currently doing)
- Skills for government civilians must be more for “managers” then “doers” (lots of near-term retirements represent an opportunity)
- New rules are needed regarding contractors in combat zones
- Military Health Care costs are out of control

### Results of A-76 DoD Cost Comparisons: 1978 - 1994

<table>
<thead>
<tr>
<th>Competitions Completed</th>
<th>Average Annual Savings ($M)</th>
<th>Percent Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Army</td>
<td>510</td>
<td>$470</td>
</tr>
<tr>
<td>Air Force</td>
<td>733</td>
<td>$560</td>
</tr>
<tr>
<td>Marine Corps</td>
<td>39</td>
<td>$23</td>
</tr>
<tr>
<td>Navy</td>
<td>806</td>
<td>$411</td>
</tr>
<tr>
<td>Defense Agencies</td>
<td>50</td>
<td>$13</td>
</tr>
<tr>
<td>Total</td>
<td>2,138</td>
<td>$1,478</td>
</tr>
</tbody>
</table>

*Defense Reform Initiative Report, Nov. 1997*
Results of A-76 Cost Comparison: FY 1997 - 2001

A-76 Cost Comparisons FY 97-01

- MEO Positions
- Actual Positions Competed

Source: DoD CAMIS Data
## Distribution of DoD Workforce (Thousands)

<table>
<thead>
<tr>
<th>Occupation</th>
<th># Civ</th>
<th># Mil</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintenance/Engineers</td>
<td>233</td>
<td>198</td>
<td>445</td>
<td>402</td>
</tr>
<tr>
<td>Administration</td>
<td>262</td>
<td>270</td>
<td>119</td>
<td>207</td>
</tr>
<tr>
<td>Combat</td>
<td>12</td>
<td>8</td>
<td>324</td>
<td>296</td>
</tr>
<tr>
<td>Service, Supply, and Procurement (Logistics)</td>
<td>132</td>
<td>92</td>
<td>152</td>
<td>127</td>
</tr>
<tr>
<td>Health/Medical</td>
<td>28</td>
<td>28</td>
<td>131</td>
<td>112</td>
</tr>
<tr>
<td>Technical</td>
<td>114</td>
<td>76</td>
<td>91</td>
<td>50</td>
</tr>
<tr>
<td>Comm/Intelligence</td>
<td>6</td>
<td>7</td>
<td>137</td>
<td>118</td>
</tr>
<tr>
<td>Other/Unknown</td>
<td>50</td>
<td>8</td>
<td>180</td>
<td>60</td>
</tr>
<tr>
<td>Total</td>
<td>874</td>
<td>687</td>
<td>1,599</td>
<td>1,370</td>
</tr>
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Summary

- Change (in the way the DoD does it’s business) is both needed and inevitable

- The question is: will it happen rapidly, efficiently, and effectively

  OR

  slowly, begrudgingly, and with great cost and ineffectiveness?

- We really have no choice – if we are to maintain our military and economic security

  And we need to start now!