

Achieving an Effective National Security Posture in an Age of Austerity

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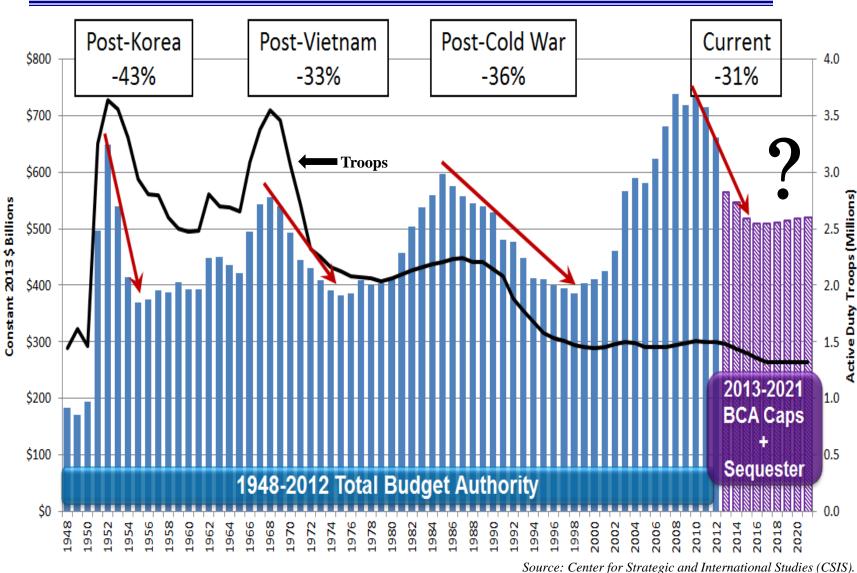
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Shrinking and Uncertain Defense Budgets and Declining Force Structures



The Security Challenges Facing the U.S.

- <u>Shrinking Appropriations</u>: Financial Crisis; <u>with adverse trends</u> in costs (O&M, Fuel, Healthcare, Equipment, and Services); debt; demographics; etc.
- Unstable/Insecure World Environment: pirates; terrorists; cyber "attacks"; chemical/bio/nuclear; IEDs; regional instabilities (that draw us in); widespread proliferation; "loose nukes;" pandemics; natural disasters; struggles for scarce resources (energy, water, raw materials); violent religious extremism; and, on up to the threat of nuclear Armageddon - with <u>much</u> <u>uncertainty as to "what's next</u>."
- And huge <u>resistance</u> to the <u>changes required</u> for the 21st century security environment (e.g. "war among the people"; Cyber Security; coalition operations; etc.) - - and to the <u>resource shifts required</u> (e.g. base closures; research vs. more 20th century equipment; etc.)



Some Summary Statements on the <u>Environment</u>

- Perhaps the biggest national security concern is the U.S. economy - former Chairman Joint Chiefs of Staff: "<u>America's #1 national</u> security threat is the deficit."
- Regarding the Security Environment Former Director of National Intelligence: "<u>More challenges today than we've had in the last 50</u> years."
 - In terms of the combined economic and security environment a senior military officer in the intelligence field: "<u>the controlling</u> <u>concern we have today is uncertainty</u>."

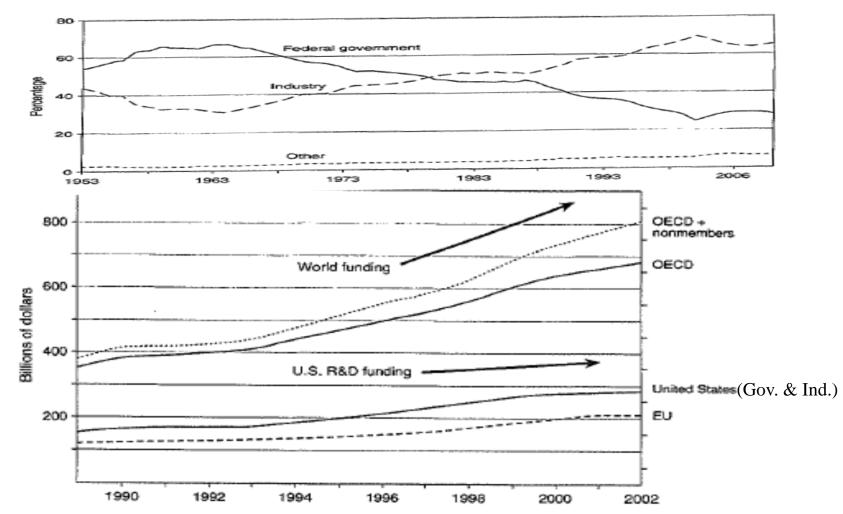


The Needs Are:

- **Do More With Less** - and recognize that "even how much less" is uncertain
- <u>Respond Much Faster</u> - to the rapidly-changing, and uncertain, threat environment
- <u>Maintain Technological Leadership</u> - in all areas e.g. in cybersecurity, in intelligence, and in logistics (e.g. from "Big Data Analytics"); while recognizing that technology, industry, and labor today are <u>globalized</u> (and, in many areas, the technological leadership exists in commercial or foreign firms - not in DoD)
- <u>Invest in Research</u> -but; in the past, as the total budgets decline, the first things cut are: Travel, Training, and <u>Research</u>; and the U.S. has laws, policies, and practices that are <u>barriers</u> to DoD utilizing best-in-class <u>commercial</u> and <u>global</u> technologies.
- **<u>Recognize and Respond to the changes required</u>:** (e.g. for "war among the people"; for a world of "cyber-warfare"; for "coalition operations"; etc.)



Research Funding Trends*(Critical for Economic Competitiveness and Security "Technological Leadership")



*Sources: Top Fig.: David Mowery "Military R&D and Innovation" (University of California Press, 2007); Lower Fig.: National Science Foundation, S&E Indicators 2006; OECD, Main S&T Indicators database, Nov. 2004

Some "Barriers" to Needed Solutions

- Specialized cost accounting (required by FAR) Forces separation of commercial and military [Boeing story]
- Export controls - creates disincentive for commercial firms to do government work [iRobot and Boeing stories]
- Congressionally-mandated import restrictions - obvious barriers to many foreign products (unless built in U.S.)
- Congressional legislation requiring sole-source maintenance on defense systems in government depots for 50% of all work
- White House and government agencies pushing for "insourcing" "of non-inherently governmental" work
- Congress making public/private competitions (illegal)
- > Services' budgets cutting training and research



<u>Globalization</u>

- ➢ Today, <u>technology</u>, <u>industry</u>, and <u>labor</u> are "globalized".
- In many critical areas, the U. S. is no longer the leader [for example: night-vision story; and MRAP story].
- Today (per OSD report) every U. S. weapon contains foreign parts (from allied nations)– because they are better; not because they are cheaper!
- Additionally, all future national security scenarios (e.g. terrorism; cybersecurity; regional instabilities; proliferation; etc.) require <u>multinational approaches</u> - - applying both "hard" and "soft" power- and requiring multinational planning, training, and technology sharing (both ways), [e.g. to achieve total force interoperability, support, and maximum effectiveness]
- The reality of globalization requires a change in U. S. export and import policies (while, of course, always considering supply chain security concerns).

The U.S. Must Gain the Economic and Security <u>Benefits</u> from Globalization– so the Policy "Barriers" Must be Removed



To Acquire More Capability with Less Resources Requires Addressing:

- **1.** <u>What</u> is bought (the "requirements" and "budget" processes)
- 2. <u>How</u> goods and services are bought (the "acquisition process")
- **3.** <u>**From whom**</u> the goods and services are acquired (the "industrial base")
- 4. <u>How</u> and <u>by whom</u> the goods and services are supported (the "logistics process")
- 5. <u>Who</u> does the acquiring (the acquisition workforce)

These Five Acquisition Issues are Interrelated; and all Five Must be Addressed to do More With Less*

*These are the areas of research that the "Center for Public Policy and Private Enterprise" at the University of Maryland are addressing.



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1. What is Acquired?

- To meet the wide range of challenges, within a resource-constrained environment, we must focus on:
 - Lower cost systems and services (i.e. "cost as a requirement")
 - Optimized, <u>net-centric systems-of-systems</u> (vs. optimized individual "platforms")
 - <u>Interoperability</u> of "Joint" systems; multi-agency systems; and coalition systems
 - Planning and <u>exercising "as we'll fight</u>": together with allies, multiagencies, and "contractors on the battlefield" (~200,000 contractors in the Iraqi/Afghanistan war zone)
 - <u>Maintaining state-of-the-art leadership</u> through continued Research investments (to keep up with the rapidly-changing world)



2. How Goods and Services are Acquired

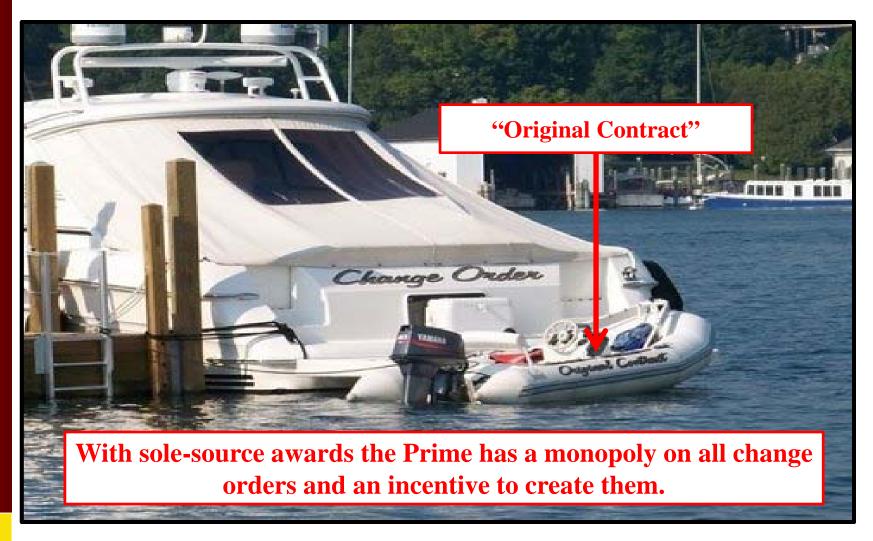
To achieve higher performance at lower costs, and faster:

- •Require "<u>cost</u>" as a design/military "<u>requirement</u>" (because cost, in a resource-constrained environment, is numbers; and, per Lanchester, numbers are critical)
- Provide viable, "<u>continuous competition options</u>" (as the incentive for higher performance at lower costs) e.g. competitive prototypes; competitive split-buys; etc. - - or, even a credible "option" to introduce competition (if costs don't go down while performance goes up)
- Make maximum use of <u>commercial products</u> and <u>services</u> (at all levels - utilizing Other Transactions Authority (OTA); especially at lower tiers)
- Take advantage of the potential <u>benefits</u> of "globalization"(while addressing supply-chain security)
- Implement <u>modern</u>, <u>enterprise-wide IT systems</u> (logistics, business, personnel, etc.) - including linking Government and Industry
- Fully evaluate impact of program "changes" (requirements, budgets, etc.)



Change Order Impact

Initial low bid is likely be Illusory (even if fixed price)





2. How Goods and Services are Acquired

- •Institutionalize a "<u>rapid acquisition</u>" process (to respond to urgent needs) - It doesn't exist now
- •Create policies, education, etc. for buying <u>services</u> (now ~ 60% of acquisition \$ - but policies, practices, etc. are based on buying <u>goods</u>)
- •Create <u>incentives for contractors</u> to achieve desired results (in cost, schedule, and performance) - e.g. reward with sole-source follow-on <u>if</u> you get higher performance at lower costs
- •Modernize the <u>DoD Logistics system</u> (the highest-cost acquisition area; but it is not "world class")



It Can Be Done!

Joint Direct Attack Munitions (JDAM) Program

- The JDAM System is a tail kit for converting gravity guided munitions to GPS or computerguided munitions (i.e. converting "dumb" bombs to "smart" bombs)
- A key "pilot program" in DoD's push for using commercial acquisition strategies – granted expedited waiver status (25 in total)
- Program cost figures:
 - Historical system price estimate: \$68,000 (i.e. "ICA")
 - **<u>Price requirement</u>**: \$ 40,000
 - Realized system price: \$18,000

A Success Story



- ➡ <u>Strategy</u>
- Continuous competition
- Max. commercial
- <u>Warranties</u>
- "Best value" selection



Current Acquisition Trends are in the Wrong Direction

- Greatly increased use of "Lowest Price, Technically Acceptable" (LPTA)
 - vs. "best value", for source selection
- Inappropriate use of competition:
 - Not utilizing continuous competition (e.g. on F-35 engine)
 - Frequent competitions on service contracts, even when costs decrease and performance improves
- Very large number of "winners" on IDIQs (and making them all bid on every task)
- Policies greatly discourage dual use industrial operations
- Proposals to have the government as the System's Integrator
- Putting ideas from unsolicited proposals up for bid
- Encouraging "vertical integration" (i.e. make vs buy - with higher profits)
- Stopping public/private competitions



<u>8) "Insourcing" vs. "Outsourcing"</u>

- As defense budgets began to decline, both the White House and Pentagon pushed for "insourcing"
 - DoD proposed to bring in over 33,000 jobs
 - ➤ A. F. proposed to save 40% by insourcing aircraft maintenance
- But the Congressional Budget Office (CBO) published an analysis saying the non-inherently-governmental work of maintenance would be <u>90% more expensive to insource</u>
- And a similar projection (90% lower cost) was published by the GAO for private sector <u>competitively provided</u>, non-inherentlygovernmental security services
- The data show that the best (and "fairest")way to make the decision (for non-inherently-governmental work) is via public/private competitions [known as "competitive sourcing", using O.M.B. A-76]



Results of DoD Public/Private Competitions: 1978 - 1994

	Competitions Completed	Average Annual Savings (\$M)	Percent Savings
Army	510	\$470	27%
Air Force	733	\$560	36%
Marine Corps	39	\$23	34%
Navy	806	\$411	30%
Defense Agencies	50	\$13	28%
Total	2,138	\$1,478	31%

Defense Reform Initiative Report, Nov 1997



DoD "Competitive Sourcing" (A-76) – Public Private <u>**Competitions Demonstrated Results 1994-2003**</u>

Winning Bidder	Number of Competitions Won	Civilian Positions Competed (Excluding Direct Conversions)	MEO FTEs [*] (Excluding Direct Conversions)	% Decrease from Civilian Authorizations to Government MEO FTEs
In-House	525 (44%)	41,793	23,253	44%
Contractor Total	667 (56%) 1,192	23,364 65,157	16,848 40,101	28%** 38%***

* MEO= Most Efficient Organization (as proposed by government workers)

** Even for the competitions won by the contractor, the MEOs proposed decreases of 28% in the FTE headcount

***No matter who won, the involuntary terminations of government workers (RIFs) averaged only 5% ¹⁾

1) Competitive Sourcing: What Happens to Federal Employees? Jacques S. Gansler and William Lucyshyn, October 2004 But Congress has "outlawed"A-76 competitions!



"Competitive Sourcing" 2004 IRS Results

	Number of FTEs Competed	Winner	FTEs Proposed	Reduction*
Area Distribution Centers	400	MEO	160	60%
Campus Center Operations and Support	278	MEO	60	78%

The Government Employee MEO Won Both Competitions With Dramatic Proposed Savings

In spite of these results (and under pressure from the Government Union) Congress outlawed future public/private competitions.

*The source selection results were released in Aug 2004



3) "Dual-Use" Industrial Operations

- In recent years the <u>commercial</u> world has become very "hi-tech" (e.g. information systems, cell phones, GPSs, iPads, etc.) and pushing into next-generation (e.g. nano-tech electronics, "3-D printing," etc.) - all applicable to the defense world.
- When <u>industrial activities</u> can be <u>combined</u> (engineers, production, support) there are large "economies of scale" to be gained; as well as rapid "technology transfer" (of both products and processes)
- Thus, most other counties have a "dual-use defense industrial policy" (e.g. Japan; France; Russia; and, recently, China)- - which they implement
- By contrast, <u>U.S.</u> acquisition policies <u>greatly</u> <u>discourage</u> dual-use industrial operations.

-For example: specialized cost accounting [Boeing Story]; export controls [Boeing and iRobot stories]

The U. S. "Barriers" to Dual-Use Hurt Both National Security and U. S. International Economic Competitiveness



3)

For Non-Inherently-Governmental Work, a Public Private Partnership Should be Considered

- An <u>ideal</u> "partnership" takes advantage of the experience of government and the competitive benefits and skills of industry.
 - Forms of government-industry partnerships:
 - partnerships between government labs and University researchers
 - partnerships between government workforce and industry, in many "service" areas (e.g. government depots)
 - competition between different government-industry partnership teams

This combination allows the nation to benefit from the best of government and industry – while also gaining the direct or indirect benefits of market forces (in performance and costs) All stimulated by the "National Defense Authorization Act of 2013" (providing "broad latitude to prioritize services that are not inherently governmental")



4. DoD Logistics Today

- Spend over \$210 billion annually (FY2012); employ approx. 1 Million government people; have an inventory of approx. \$90 Billion (much of which is obsolete)
- The commercial world has <u>integrated</u> logistics data systems and is applying "big data analytics"; DoD has over 2000 non-inoperable logistics systems (and few links to the rest of the enterprise - including industry)
- DoD Logistics has little in-transit or in-theater (asset) visibility, or cost visibility, or performance accountability
 - Implementation of RFID program, mandated in 2002, has been excessively slow

The potential for <u>dramatic improvements in performance</u> with tens of <u>billions of dollars of annual savings</u> must be realized -- and soon.



Not What I Have in Mind





Performance Based Logistics* Availability and Response Time

Material Availability		Logistics Response Time		
<u>Navy Program</u>	Pre-PBL	Post-PBL*	Pre-PBL	Post-PBL*
F-14 LANTIRN	73%	90%	56.9 Days	5 Days
H-60 Avionics	71%	85%	52.7 Days	8 Days
F/A-18 Stores Mgmt System (SMS)	65%	98%	42.6 Days	2 Days CONUS 7 Days OCONUS
Tires	70%	85%	28.9 Days	2 Days CONUS 4 Days OCONUS
APU	65%	90%	35 Days	6.5 Days

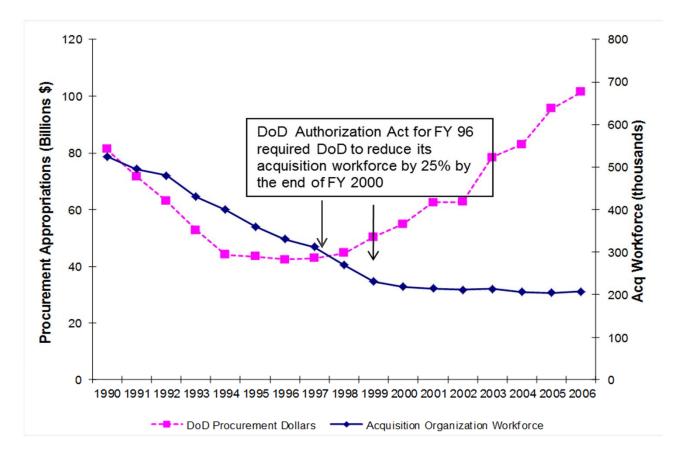
* PBL is contractor-based [a recent AIA study said PBL could save \$25-\$30 billion per year]



5.

DoD Acquisition Workforce Has Been Greatly Undervalued:

Quantity and Quality of Adequate "Smart Buyers" are required!



Source of workforce data: DoD IG Report D-2000-088 Feb 29, 2000 & DoD IG Report D-2006-073 April 17, 2006

Source of budget data: Annual Defense Reports, available at http://www.dod.mil/execsec/adr_intro.html. Procurement supplementals for FY2005 and FY2006 not yet reflected in Annual Defense Reports were obtained from Congressional Research Service Reports. (Defense Science Board, 2008)



Acquisition Workforce – Across the Federal <u>Government – Is a Critical Concern*</u>

- Aging workforce (across the entire government) previously had few younger hires so, as the wave of retirement occurs, fewer experienced people to step in
- DOD, especially, has an acquisition workforce problem (for inherentlygovernmental jobs):
 - Greatly reduced senior officers and SESs
 - In 1990, the Army had 5 General Officers with contracts background; in 2007 had 0.
 - In 1995, the Air Force had 40 General Officers in Acquisition; in 2007 only 24; and 87 SESs down to 49.
 - DCMA: 4 General Officers to 0; 25,000 down to 10,000;
 - Recent government hires mostly at "intern" level (over 50% of federal government acquisition workforce have less than 5 years experience - in DoD it is 55%).

Need more people in government who understand industry.

*To address this UMD has established a Master's Degree Specialization in Acquisition, and for the last decade has had a Research Center operating in this area.



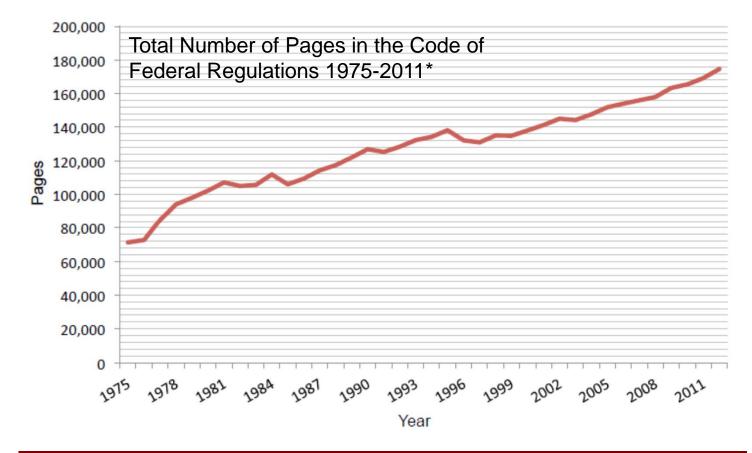
Seven Congressional and/or Administration <u>Actions Urgently Required</u>

- Allow Base Closures (via a BRAC) to match the reduced number of troops
- Reintroduce Public-Private Competitions (via A-76)
- Allow Competitions (including Public-Private Partnerships) for Depot work (vs. 50% sole source)
- Remove Barriers to Civil/Military Industrial Integration and to buying commercial (e.g. specialized cost accounting for commercial goods and services)
- Introduce changes to export and import policies; to gain the benefits of globalization
- Evaluate, then reduce, the current cost impacts of oversight, and regulations (e.g. CAS and auditing), and reporting requirements (e.g. subcontract plans and reports)
- Increased emphasis on the value of the acquisition workforce (including their education, training, and experience)

"Implementing Alternative Sourcing Strategies: Four Case Studies," Center for Public Policy and Private Enterprise, School of Public Policy, UMD, October 2004



More Regulations are Not the Solution



Note: The TASC/Coopers and Lybrand study of the 18% "regulatory cost impact on DoD purchases" was done in 1994.

*Source: Mclaughlin, Patrick A., On The Human Costs Of The Us Regulatory System: Should Congress Pressure Agencies to Make Rules Faster?, August 1, 2013



Expect Significant Resistance to Change*

- From Congress (e.g. base closures; public/private competition; foreign sourcing)
- From Unions (e.g. outsourcing; competitive sourcing)
- From the Military (e.g. if counter-cultural) [Global Hawk story]
- From incumbent businesses (e.g. current products)

This Resistance <u>Must</u> Be Overcome!

It will take proactive <u>Leadership</u> at multiple levels and perspectives (e.g. OSD, P.M.s, Contracting, Industry, etc. - and Congress)

* as Machiavelli warned – in "The Prince, 1513



On Making Change in Government

"It Must Be Remembered That There Is Nothing More Difficult To Plan, More Doubtful Of Success, Nor More Dangerous To Manage, Than The Creation Of A New System. For The Initiator Has The Enmity Of All Who Would Profit By The Preservation Of The Old Institutions And Merely Tokewarm Defenders In Those Who Would Gain By The New Ones."

Niccolo Machiavelli "The Prince, (1513)





Achieving these required changes will take political courage and sustained, strong leadership - - by both the Executive and Legislative branches (working together).

But with the external world changing so fast (technologically, geopolitically, demographically, economically, etc.) <u>change</u>, and the required <u>leadership</u> (to bring it about), are essential!

The American public, and particularly, our fighting men and women, deserve it - - and the nation's future security depends upon it.

I Believe It Can Be Achieved!



Backups



This is a Critical Period

- Similar to the period following the launch of Sputnik or the fall of the Berlin Wall
- Today <u>the security world is changing dramatically</u>—especially since 9/11/01 (geopolitically, technologically, threats, missions, war fighting, commercially, etc.) – and a <u>holistic perspective is required</u> (including STATE, DHS and DNI, as well as coalition operations)
- Moreover, a decade of solid budget growth which has clearly <u>changed</u> – has deferred difficult choices (between more 20th Century equipment vs. 21st Century equipment); and <u>severe resistance</u> (to the needed changes) can be expected.
- However, the controlling acquisition policies, practices, laws, etc. and the Services' budgets and "requirements" priorities <u>have not been</u> <u>transformed</u> sufficiently to match the needs of this new world (in fact, there is still an emphasis on "resetting" vs. "modernizing"; and of "preserving" the industrial base, vs. "transforming" it).



Current Defense Strategy:

- A smaller, leaner, more agile, responsive, and technologically-advanced force
- Maintain military presence & force projection in Middle East and APAC; and go elsewhere if needed (e.g. Africa)
- Build partnership and partner capacity
- Remain capable of confronting and defeating any adversary
- Protect & prioritize key investments in technology and new capabilities

Maintain a Strong Defense Posture With Fewer Dollars

- But, <u>cost trends</u> (energy; acquisitions (goods and services); labor; medical; are all <u>adverse</u>
- As are many resource allocations (e.g. cuts in Research), and policies/regulations (e.g. regarding commercial and global buying)



3. From Whom Goods and Services are Acquired

Six Critical– and Highly Interrelated- Policy Questions that Directly Determine the <u>Structure</u>, <u>Conduct</u>, and <u>Performance</u> of the <u>Defense Industrial Base</u>

1) What share of the limited resource should be devoted to <u>long-term investments</u>? (In order to maintain technological superiority.)

2) What share, and what parts, of the base should be organic? "Insourcing" vs. "Outsourcing" and/or "<u>competitive sourcing</u>"

3) Should the defense industry be isolated from, or <u>integrated with</u>, the commercial sector?

- 4) Should the base be <u>globalized</u> or autarkic?
- 5) Should the base be vertically integrated or have <u>lower-tier competition</u>?
- 6) How to "Partner" the public and private sectors?



Summary of Current Needs Regarding Industrial Base

"The last two decades have seen a consolidation of the Defense Industry around 20th Century Needs – The next step is DoD leadership in <u>transforming</u> to a 21st Century National Security Industrial Structure."

(DSB Report on 21st Century Defense Industry, 2008)

Transformation to focus on:

- Affordability (procurement and life cycle)
- Responsiveness (government and industry)
- Gain benefits of commercial and global
- Maintaining "Technological Superiority"
- Assuring the incentives from competition (at all levels, and for all non-inherently-governmental work)



Modern, Commercial Supply Chain

- UPS Worldport: sorts, routs, and tracks 300,000 packages every hour
- FedEx Global Hub: an aircraft lands every 90 <u>seconds</u>; then the packages move through 300 <u>miles</u> of conveyor sorting-belts
- Wal-Mart and Dell distinguish themselves based on their "sense and respond" (demand-based) supply chains -- which <u>respond in hours --</u> <u>with total asset visibility</u>
- Dell makes a desk-top computer every 5 <u>seconds</u>; to rapidly respond to <u>tailored</u>, <u>internet orders</u>
- Wal-Mart keeps its 60,000 suppliers <u>continuously</u> informed about the variations in individual products within its \$300 Billion annual sales
- Benetton dramatically revised its total production process to be able to <u>rapidly respond</u> to customer <u>changing demands</u>

Speed, Cost, Quality, Agility, Visibility and Responsiveness are Driving World-Class Performance