



Fiscal Year 2008 President's Budget Request for DoD Science & Technology

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Overview

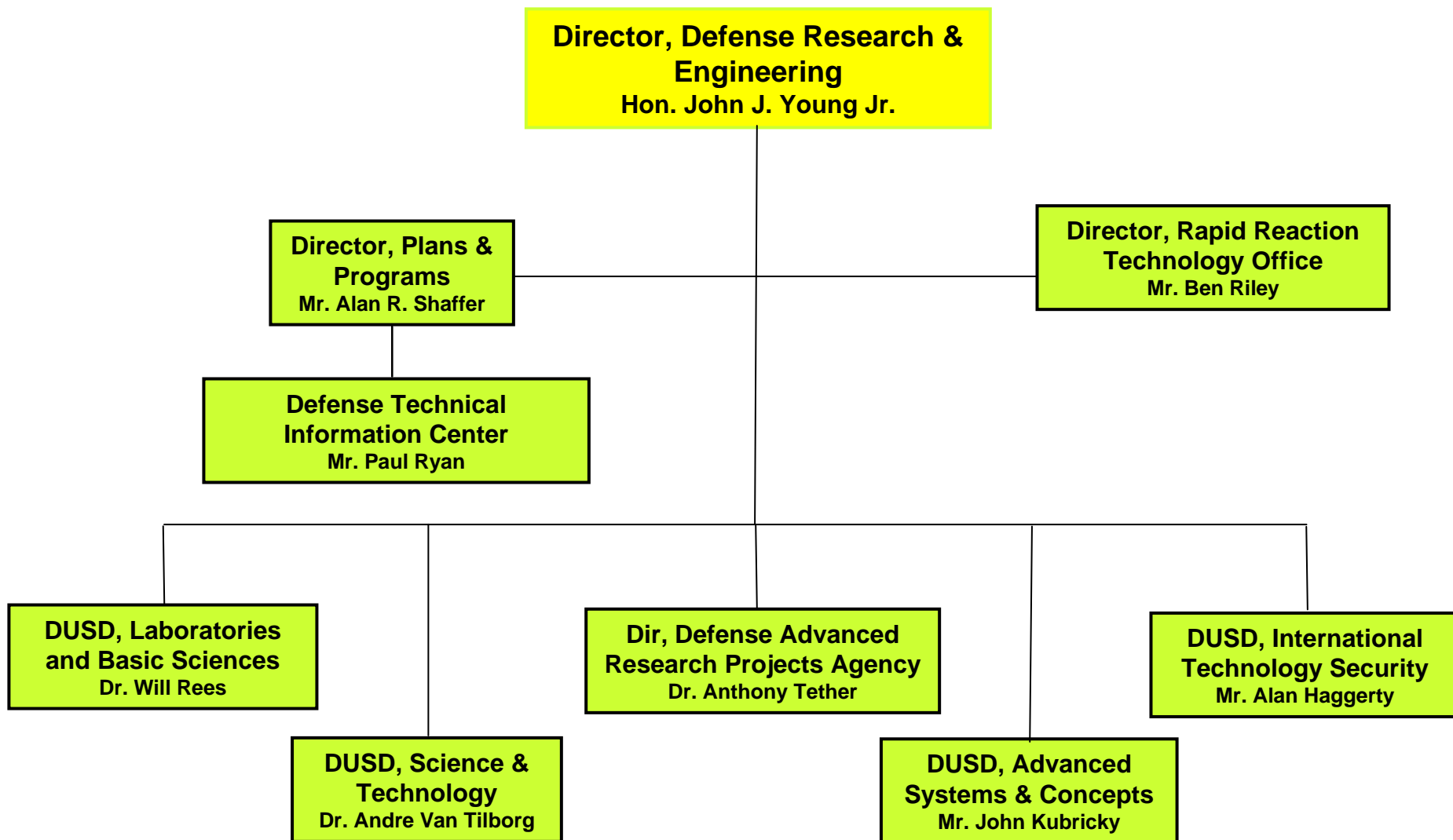
- **PBR 2008 S&T Budget**
- **Budget changes and historical context**
- **Strategic foundation**
- **OSD / DDR&E programs, Reliance 21, R&E Portal**

PBR08—A year of transition

The growth of “non-kinetic”, non-platform specific capabilities



DDR&E Organization



DDR&E Vision



***Develop
technology to
defeat any
adversary on
any battlefield.***



DDR&E Priorities for CY 2007



- **Support Global War on Terrorism**
- **Support Urban Operations Capabilities**
- **Support WMD Detection & Response Capabilities**
- **Develop Transformational Power & Energy Technologies**
- **Develop Manufacturing Technologies**
- **Enhance Technology Transition**
- **Enhance National Security S&E Workforce**



PBR 2008 S&T Budget

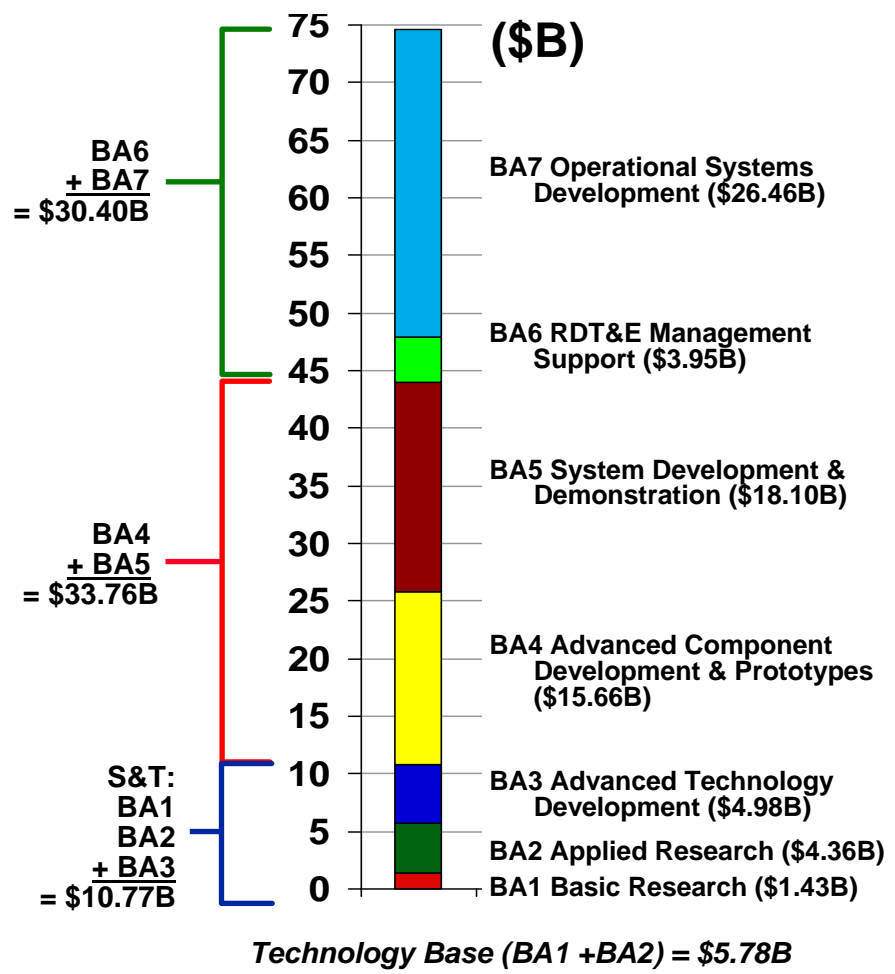
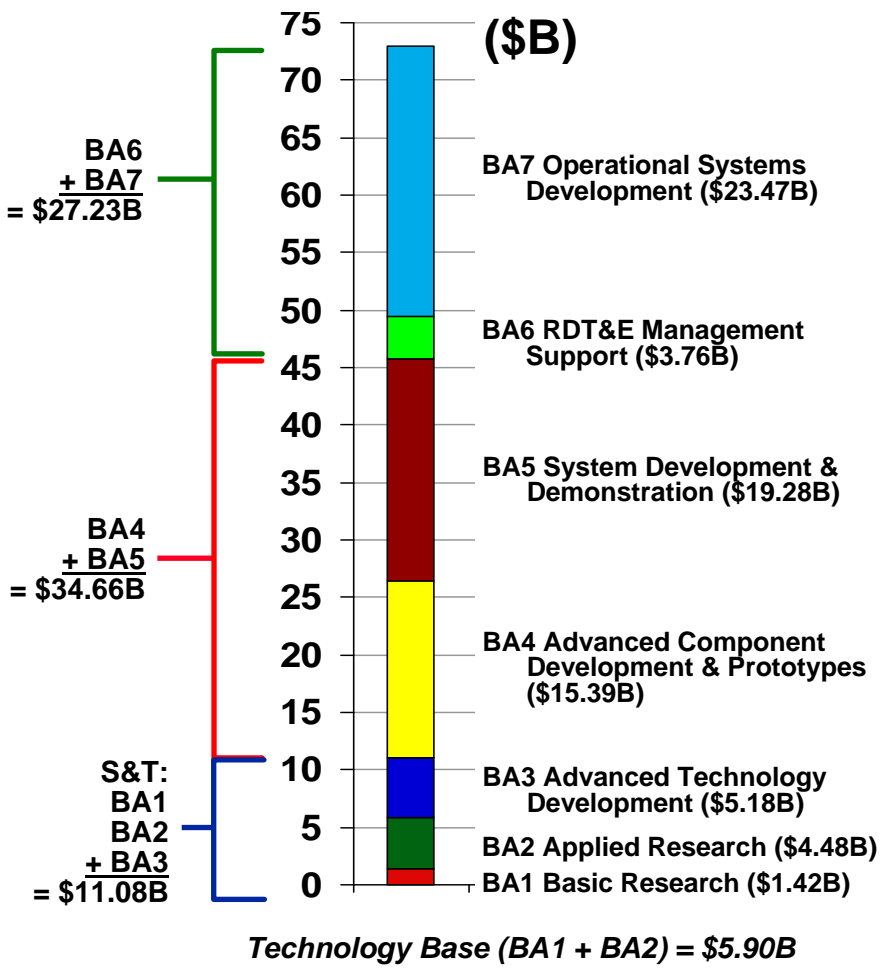
FY07 and FY08 RDT&E Budget Request Comparison

- in Then Year Dollars -



FY07 RDT&E request = \$72.97B
(Budget Activities 1-7)

FY08 RDT&E request = \$74.94B
(Budget Activities 1-7)



PBR07 S&T is 15.2% of RDT&E

PBR08 S&T is 14.4% of RDT&E

FY08 DoD R&E Budget Request Comparison



	FY07 PBR	FY07 Approp	FY08 PBR (Constant Year FY07)	Real Change (In CY \$)
Basic Research (BA 1)	1,422	1,564	1,428 (1,398)	-1.7%
Applied Research (BA 2)	4,478	5,329	4,357 (4,265)	-5.0%
Advanced Technology Development (BA 3)	5,183	6,432	4,987 (4,881)	-6.2%
DoD S&T	11,083	13,325	10,772 (10,544)	-5.1%
Advanced Component Development and Prototypes (BA 4)	15,387	15,789	15,662 (15,331)	-0.4%
DoD R&E (BAs 1 – 4)	26,470	29,114	26,434 (25,875)	-2.3%

FY08 President's Budget Request is still well above historical levels

FY08 DoD R&E Budget Request Comparison



- Adjusting for Special Program Migration -*

	FY07 PBR (Adjusted For Special Programs)	FY07 Approp	FY08 PBR (Constant Year FY07)	Real Change (In CY \$)
Basic Research (BA 1)	1,422	1,564	1,428 (1,398)	-1.7%
Applied Research (BA 2)	4,478	5,329	4,357 (4,265)	-5.0%
Advanced Technology Development (BA 3)	5,183 (4,867)	6,432	4,987 (4,881)	+0.2
DoD S&T	11,083 (10,767)	13,325	10,772 (10,544)	-2.1%
Advanced Component Development and Prototypes (BA 4)	15,387	15,789	15,662 (15,331)	-0.4%
DoD R&E (BAs 1 – 4)	26,470 (26,154)	29,114	26,434 (25,875)	-1.0%

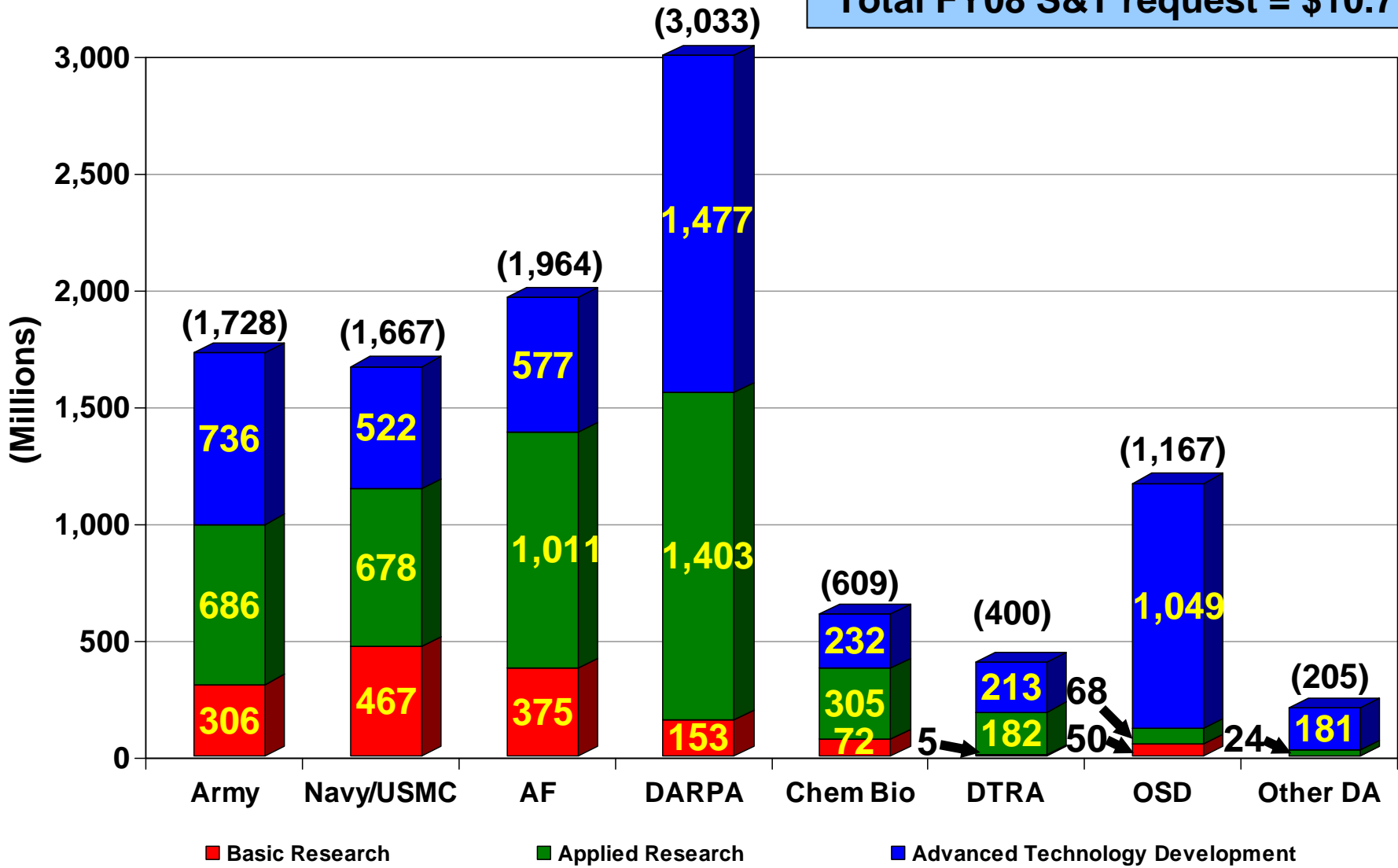
**** Note: FY 07 Budget Request Contained \$316M in AF Special Programs; realigned in FY08**

FY08 President's Budget Request is still well above historical levels

FY08 DoD S&T Budget Request



Total FY08 S&T request = \$10.772B



FY08 President's Budget Request



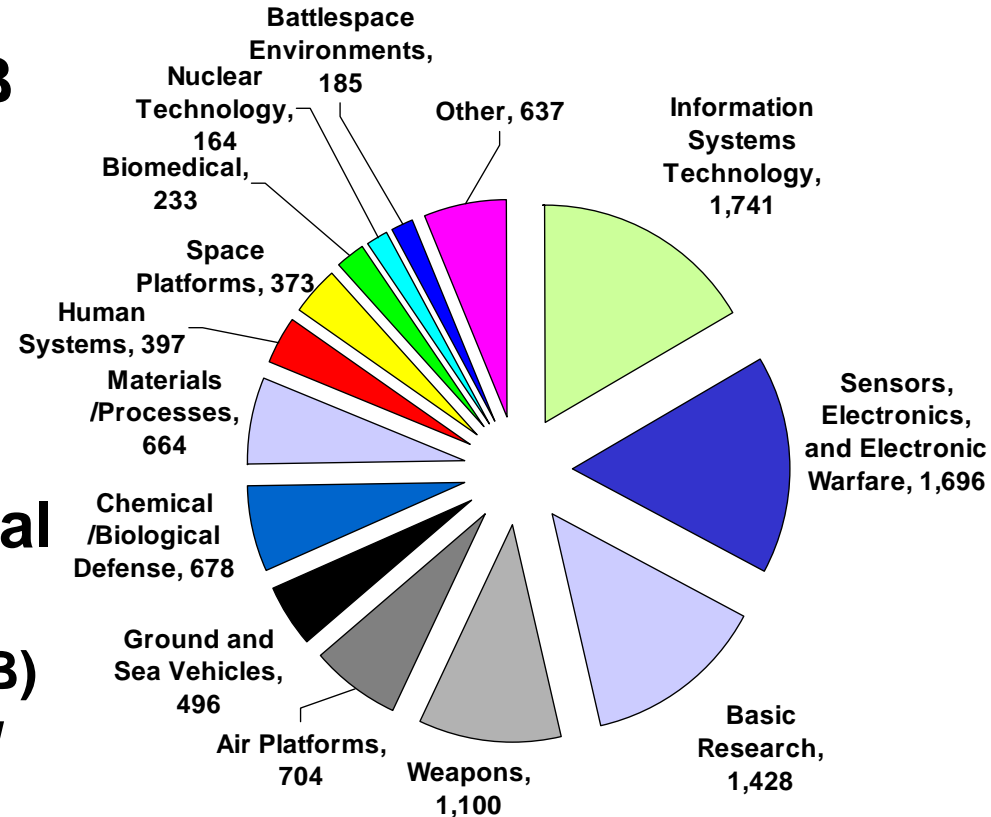
TY\$M		FY08	FY09	FY10	FY11	FY12	FY13
ARMY	Basic Research	306	316	318	321	329	336
	Applied Research	686	671	676	684	690	703
	Advanced Development	736	715	704	709	726	742
	Total S&T	1,728	1,702	1,698	1,713	1,745	1,781
NAVY/ MARINE CORPS	Basic Research	467	444	493	503	512	521
	Applied Research	678	613	622	635	667	695
	Advanced Development	522	533	592	626	614	605
	Total S&T	1,667	1,590	1,707	1,764	1,792	1,822
AIR FORCE	Basic Research	375	379	460	437	423	444
	Applied Research	1,011	1,003	1,145	1,070	1,066	1,096
	Advanced Development	577	542	738	680	626	675
	Total S&T	1,964	1,924	2,342	2,188	2,115	2,215
DEFENSE -WIDE	Basic Research	280	282	307	325	336	341
	Applied Research	1,982	2,070	2,083	2,035	2,083	2,128
	Advanced Development	3,152	3,507	3,541	3,323	3,404	3,439
	Total S&T	5,413	5,859	5,931	5,683	5,824	5,908
DoD	Basic Research	1,428	1,421	1,578	1,585	1,600	1,643
	Applied Research	4,357	4,358	4,525	4,424	4,506	4,622
	Advanced Development	4,987	5,297	5,575	5,338	5,370	5,461
	Total S&T	10,772	11,075	11,678	11,347	11,476	11,726

Characterization of the FY08 DoD S&T Program



• Funding

- Then year S&T dollars: \$11.08B FY07 to \$10.77B FY08
- Percent of total DoD funding: 2.52% FY07 to 2.24% FY08
- Over 50% of total investment in 4 functional areas:
 - Information Systems (1.7B)
 - Sensors, Electronics / EW (1.7B)
 - Basic Research (1.4B)
 - Weapons (1.1B)



DoD S&T Program is focused on “Sensing and Shooting”



Budget Changes and Historical Context

S&T Program Changes for Fiscal Year 2008



- **Refocus in response to the QDR toward “non-kinetic” technologies:**
 - Clandestine Tagging, Tracking and Locating;
 - Biometrics;
 - Human, Cultural, Social Behavior Modeling;
 - Networks;
 - Airborne Network Gateways
 - Network Science
 - Persistent Surveillance;
 - Sensor Weapon Pairing
- **Refocus to lower acquisition and operations & maintenance costs:**
 - Technologies to Decrease Energy Consumption/Increase Alternatives
 - Manufacturing Technology S&T
 - High Performance Computational Tools for Acquisition Streamlining

FY08 request includes \$1.6B of OSD directed changes, across the FYDP, to develop new technologies for new capabilities.

DoD TOA Comparison



DoD TOA by Category

Changes by Appropriation	PBR07	PBR08	\$ Change	% Change
MILPERS - Active	92,947	97,135	4,188	4.31%
MILPERS - Reserve	17,830	19,145	1,315	6.87%
TOTAL MILPERS	110,777	116,280	5,503	4.73%
O&M	152,008	164,686	12,678	7.70%
Procurement	84,197	101,679	17,482	17.19%
RDTE	73,156	75,117	1,961	2.61%
MilCon	12,614	18,233	5,619	30.82%
Family Housing	4,345	3,106	-1,239	-39.89%
Revolving Funds	2,436	2,454	18	0.73%
	439,533	481,555	42,022	8.73%

Changes by Component	PBR07	PBR08	\$ Change	% Change
Army	111,712	130,106	18,394	14.14%
DoN	127,322	139,810	12,488	8.93%
AF	130,386	136,561	6,175	4.52%
DW	70,114	75,078	4,964	6.61%
DoD TOA	439,534	481,555	42,021	8.73%

Major changes:

Army:

Procurement +\$6.9B, primarily in Tactical and Support Vehicles, Comms and Electronics;

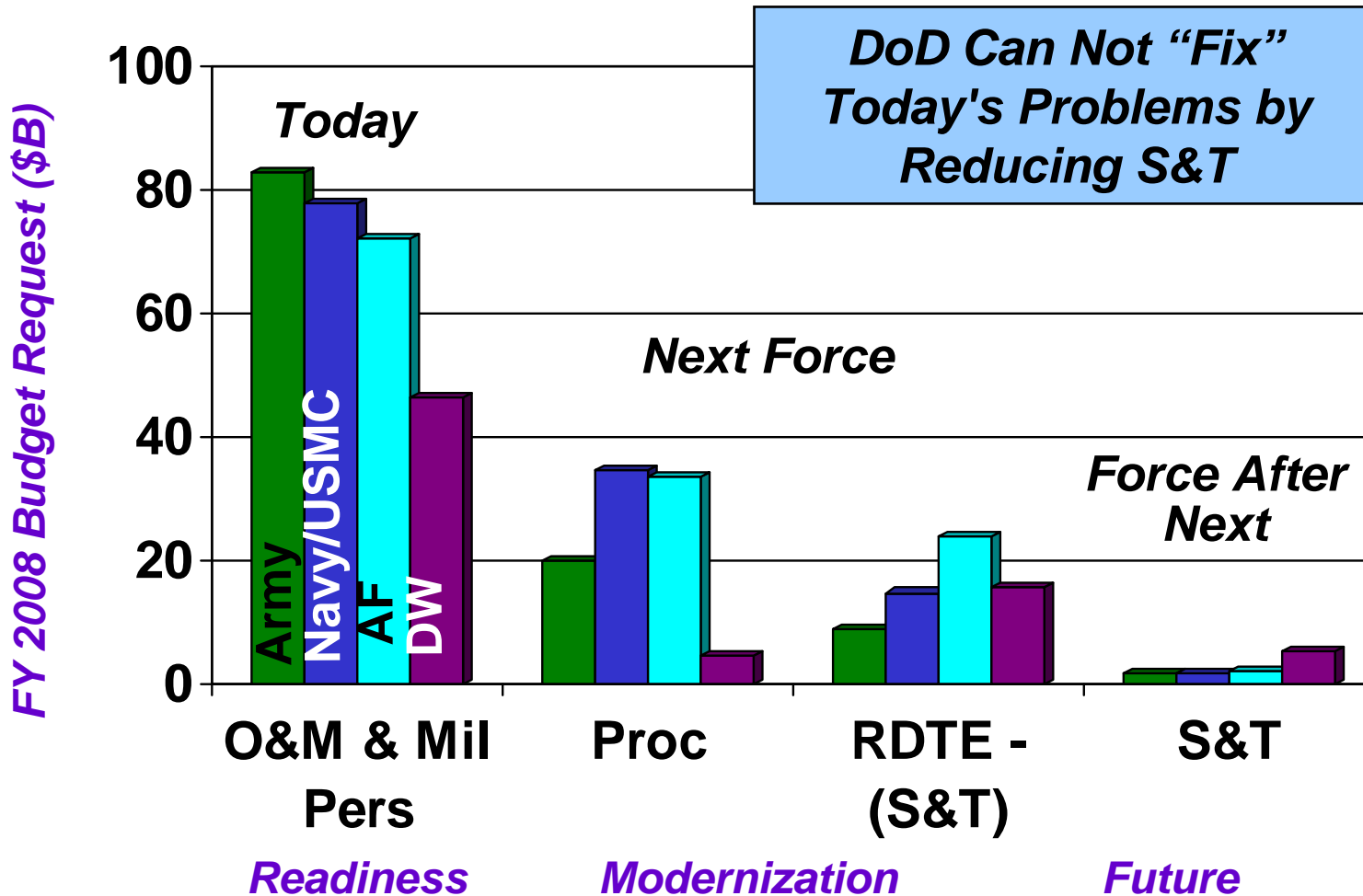
O&M +\$5.7B, primarily in Active forces

Navy:

Procurement +\$8.8B, primarily in Ship Construction (CVN-21, LPD-17), Combat Aircraft and USMC Ground Vehicles;

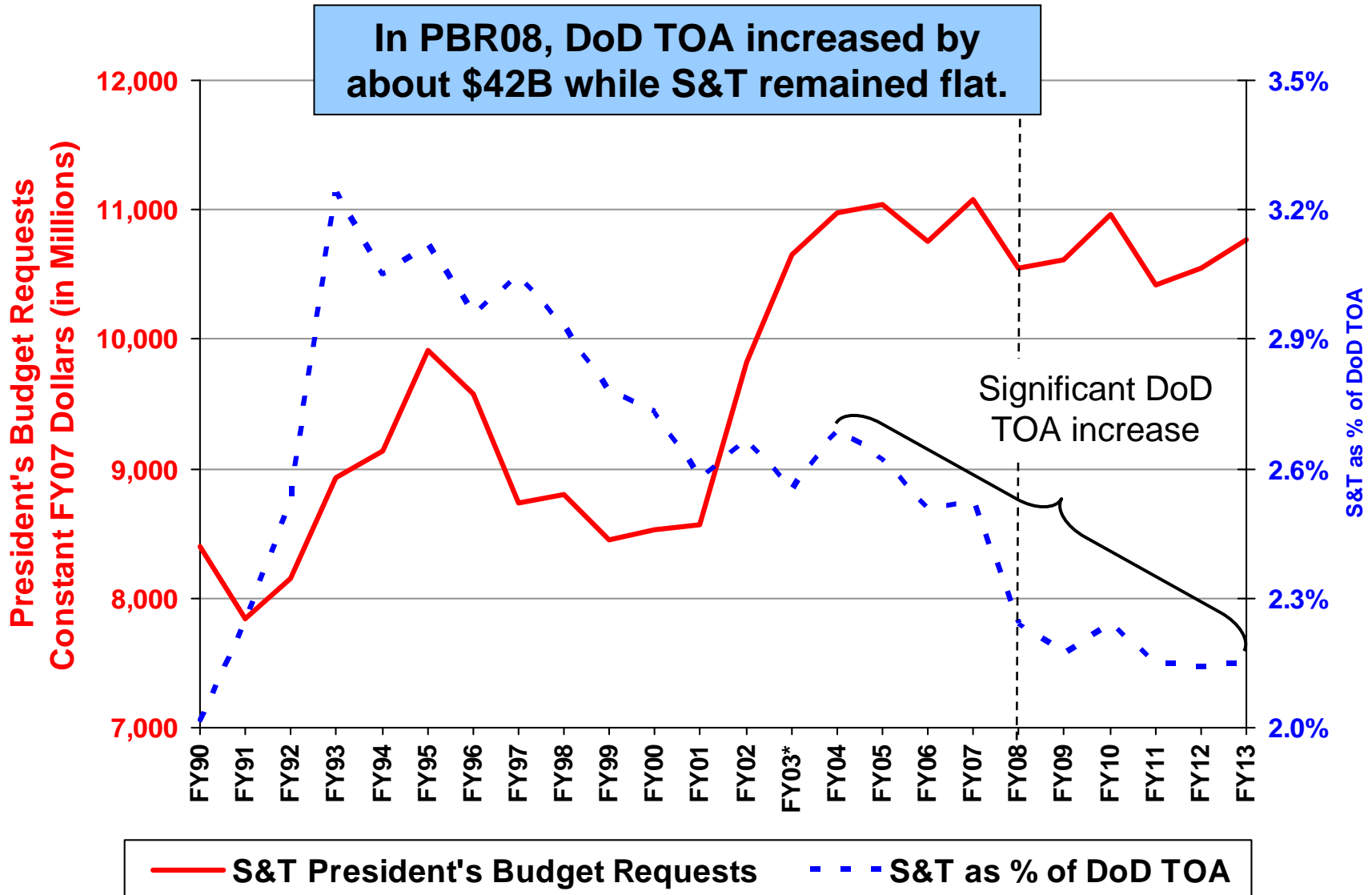
O&M +\$3B, primarily in Ship Operations with an increase in underway days per quarter

Technology Investment Compared to Other DoD Categories



DoD S&T - Macro Scale

- S&T Investment and % of DoD Total Obligation Authority (TOA) -



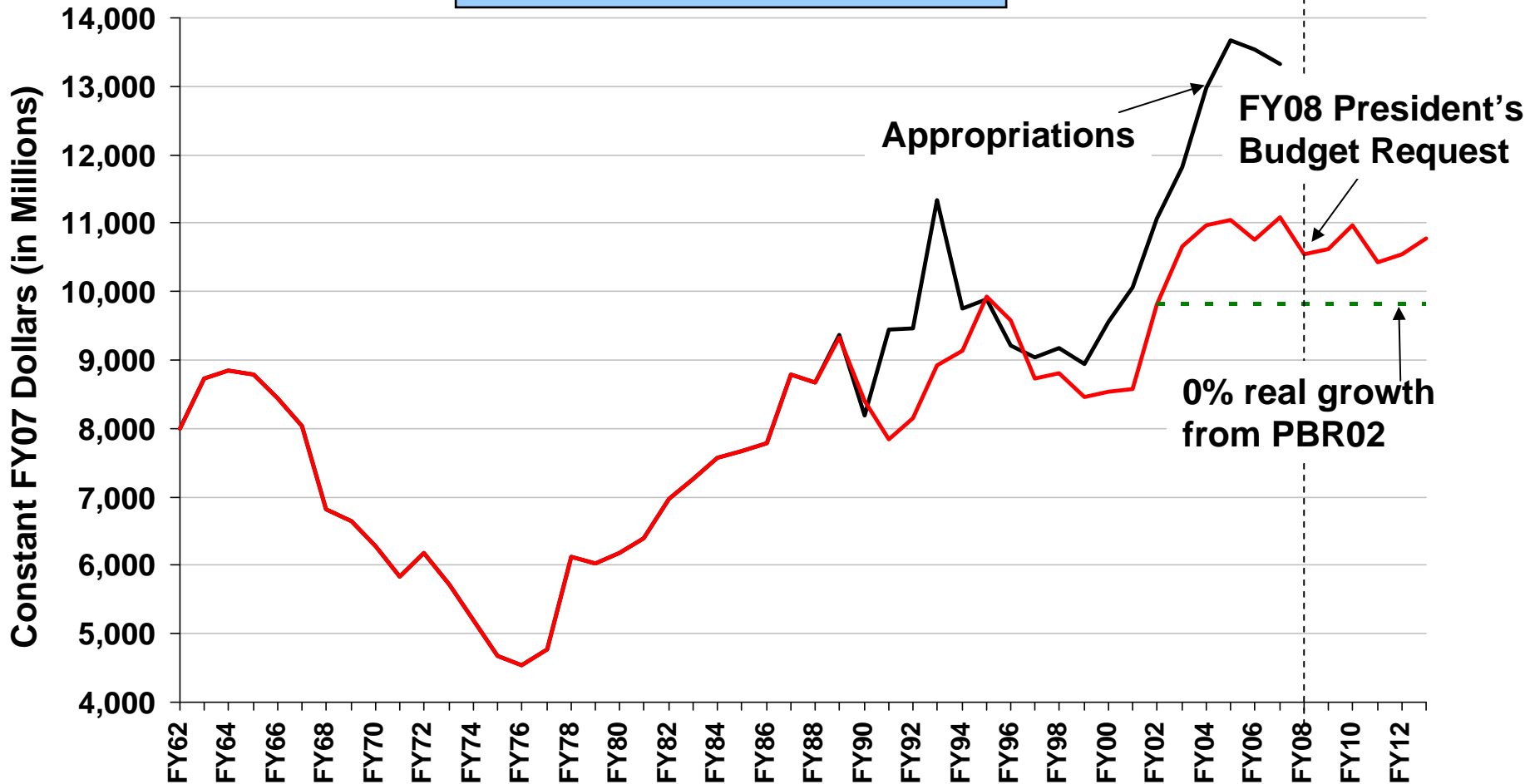
** Note: FY03 includes DERF & Nuclear Posture Review funding

DoD S&T – Historical Context

- In FY07 Constant Dollars -

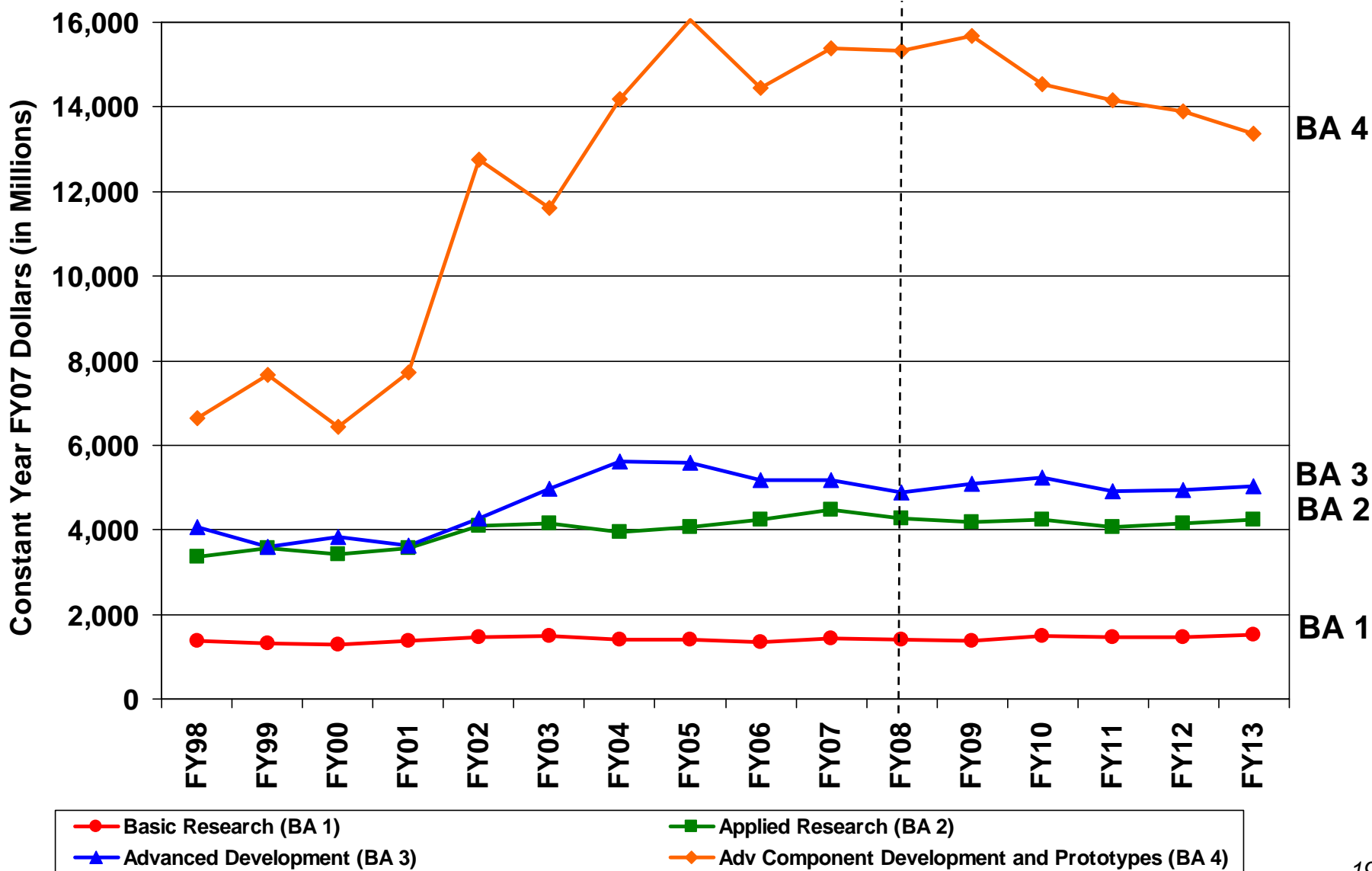


FY07 S&T investment was the largest ever requested



DoD R&E Funding By Budget Activity

- President's Budget Requests - in FY07 Constant Dollars -

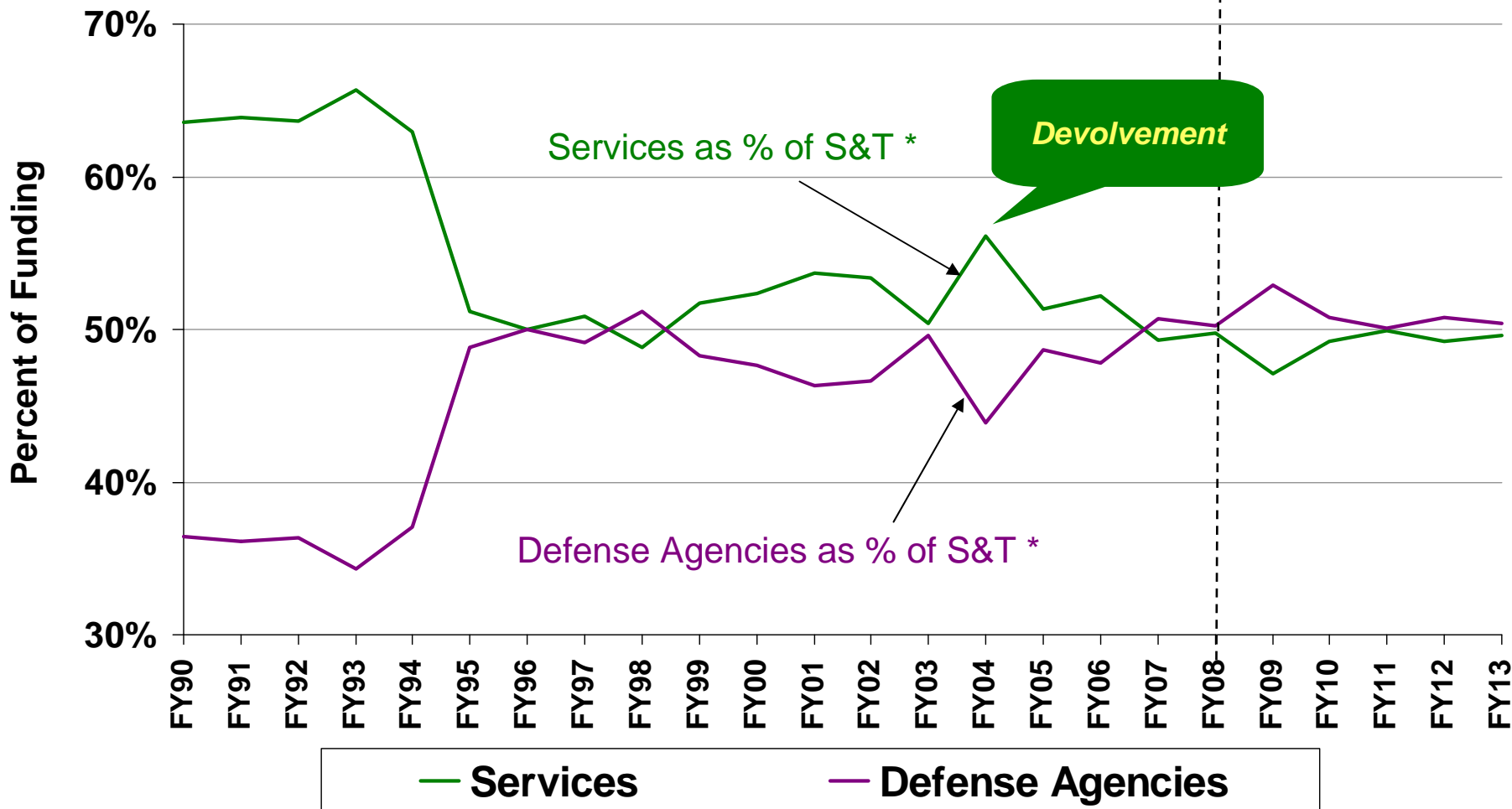




S&T Breakout

- Services and Defense Agencies as % of Total S&T -

President's Budget Requests



** **Note:** Devolved programs in FY04 perturbed program



Strategic Context



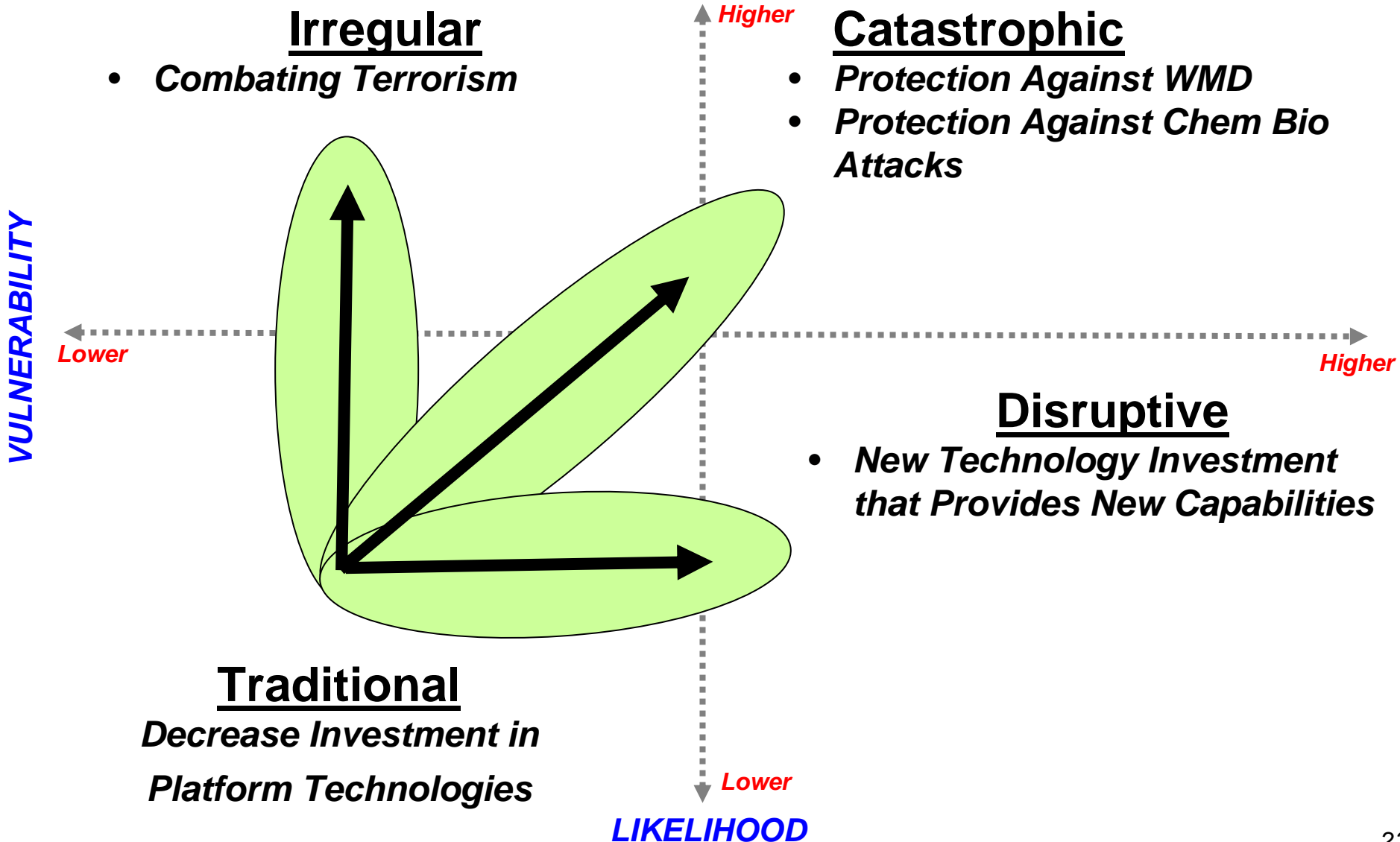
Strategic Framework

- US National Security Strategy (March 2006) set national imperative to continue the war on terrorism
 - 2006 Quadrennial Defense Review also restated the need for DoD to balance its capabilities across four categories of challenges:
 - Traditional
 - Irregular
 - Catastrophic
 - Disruptive
- Transformational*





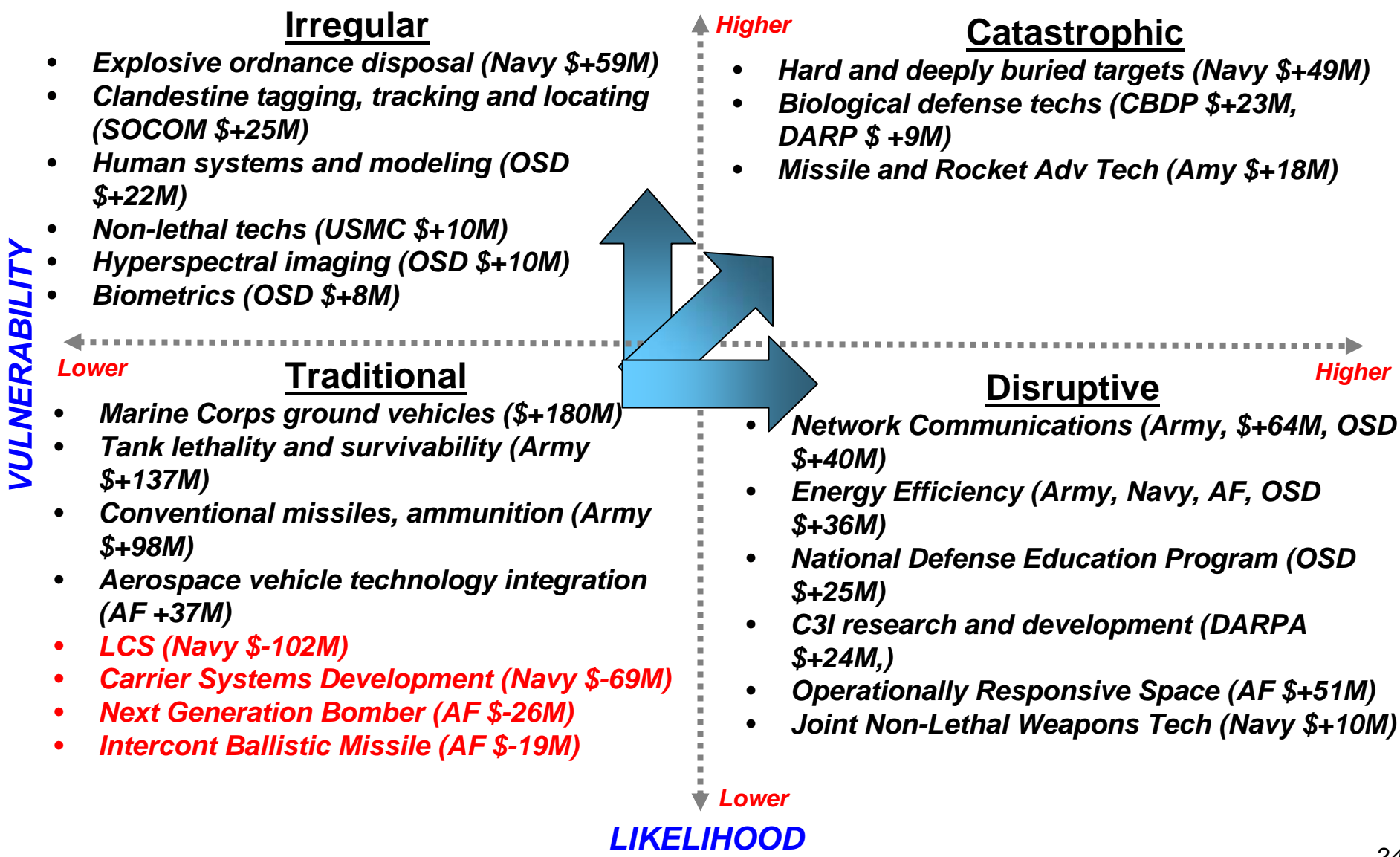
National Defense Strategy Drives Investment Strategy





R&E Funds Transformational Technologies

- Investment Priority Changes from PBR07 to PBR08 -





Overview of DDR&E Programs, Reliance 21, R&E Portal

DDR&E PBR08 Thrust Areas

--New "D" Line Programs in Blue--



- **Addresses QDR and SPG Capability Needs**
 - **Capabilities to Defeat Terrorist Networks**
 - **Biometrics (PE 0603665D8Z) \$8M FY08, \$69.5M FYDP**
 - **Human, Social, Cultural, and Behavioral Modeling (0602670D8Z; 0603670D8Z; 0604670D8Z) \$22M FY08, \$212M FYDP**
 - **Clandestine Tagging, Tracking, and Locating**
 - **Airborne Hyperspectral**
 - **Synthetic Aperture Radar Change Detection (0603745D8Z) \$6.5 M FY08, \$19.5M FYDP)**
 - **Capabilities to Defend the Homeland in Depth**
 - **Joint Integrated Fire Control**
 - **Network Communications Capabilities (0603662D8Z) \$40M FY08, \$190M FYDP**
 - **Airborne Network Gateway (0603662D8Z)**
 - **Acquisition Affordability**
 - **Defense-Wide Manufacturing Science & Technology (0603680D8Z) \$10M FY08, \$80M FYDP**
 - **Insensitive Munitions Advanced Technology (0603000D8Z) \$6.0M FY08, \$109M FYDP**
 - **Computational Research and Engineering Acquisition Tools and Environments (Project in High Performance Computing)**
 - **Other**
 - **Iridium Global Positioning System**
 - **Energy Systems**

Defense S&T Reliance



Defense S&T Reliance provides the framework to enable the DoD S&T community to work together to enhance the Defense S&T program and eliminate unwarranted duplication. It strengthens cooperation among the Services and Agencies thereby improving responsiveness to their warfighting and acquisition customers.



S&T Plans and Reliance 21

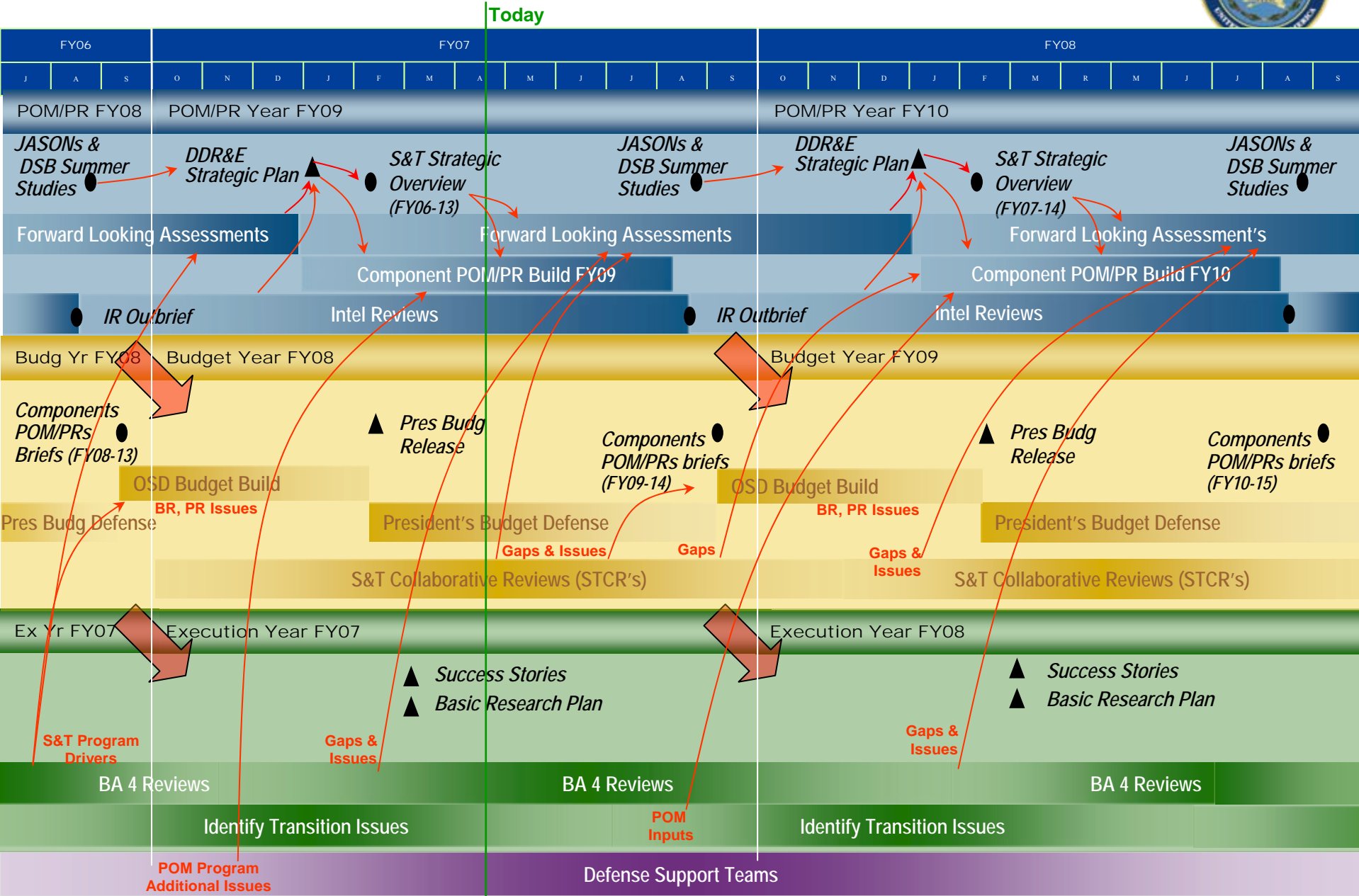


Defense Science and Technology Strategy and Plans

- **Defense S&T Strategy**
(Being replaced with DDR&E Strategic Plan)
- **Basic Research Plan (6.1) - BRP -**
(Biennial, odd years)
- **Defense Technology Area Plan**
(6.2, 6.3) - DTAP - (Being replaced with Technology Focus Teams)
- **Joint Warfighting Science and Technology Plan - JWSTP**
(Biennial, even years)
- **Defense Technology Objectives**
(DTO) Volume that supports JWSTP and DTAP (Going away)



Reliance 21 Timeline





Reliance 21 Products

- **DDR&E Strategic Plan** **Draft**
- **Basic Research Plan** **Draft**
- **Component S&T Plans** **Mar 07**
- **Success Stories** **Mar 07**
- **Joint Warfighting S&T Plan** **Mar 08**
- **Technology Focus Teams** **Ongoing**

Associated Products

- **Forward Looking Assessments** **Ongoing**
- **Intelligence Reviews** **Ongoing**

Technical Information Issues



- **Timescale on getting the answers to operational and technical questions is increasingly shorter**
- **Efficient access to accurate technical information is vital to ensuring the DoD is responsive to future threats**
- **The rate of change of technology and the volume of global technology information are increasing**
- **Information is scattered and controlled by multiple access limitations**



DoD R&E

“Information Transformation”

Every DoD Researcher, Acquisition Professional, Tester, and Operator should be able to sit down at their desktop computer and be able to find out:

- What the DoD is doing in R&E**
- Why we are doing the work**
- When the work will be done**
- Who knows more about this information**

“Smarter Google” for the RDT&E and Warfighter Community

The R&E Portal (<https://rdte.osd.mil>)



- Provide single-point access to:
 - All current R&E electronic information
 - New E-Gov database
 - R&E Points of Contact
 - News Service
 - DDR&E general information
 - Links to useful sites
- Be able to intelligently search all data
- Have Single sign-on capability (one password)
- Customer base: DoD R&E community (civil service, military, approved contractors)

(https://rdte.osd.mil)



Microsoft Internet Explorer window titled "Login to the R&E Portal". The address bar shows the URL: https://rdte.osd.mil/sso/jsp/re_portal_login.jsp?site2pstoretoken=v1.2~D9A4E5DD~4D77C43E1CE8D1321C83EF6B4FFE3448096022D41173F2C68F4741CEBDCF5

A banner for the R&E Portal featuring the text "R&E PORTAL DoD Research & Engineering" in a stylized font. The background shows a submarine, a military vehicle, and an aircraft carrier.

Welcome to the DoD Research & Engineering Portal

The R&E Portal will be the focal point for obtaining information on research and engineering activities within DoD. It is sponsored by the office of the Director of Defense Research & Engineering (DDR&E) and maintained by the Defense Technical Information Center (DTIC). Within the R&E Portal, you will find:

- Data from systems that focus on the areas of Financial Management, Strategic Planning, and Congressional Reporting.
- Information on areas of strategic importance and current initiatives within DDR&E.
- Tools to facilitate collaboration, communication, and reuse of information and artifacts.
- Robust text searching tools to query the wealth of research and engineering information held by DTIC and other DoD agencies.

Access to the R&E Portal is controlled by the DTIC Registration Process. If you are not currently registered, click [here](#) to learn more.

Sign In

Enter your user name and password to login:

User Name

Password

Forget your password? Click [here](#).

Unauthorized use of this site is prohibited and may be subjected to civil and criminal prosecution

Taskbar at the bottom shows: Start, Internet Explorer, Outlook, Mail, R&E Port..., http://w..., Shaffer, ..., Sega, Ro..., RE Portal..., Login to ...

R&E PORTAL

DoD Research & Engineering



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R&E Portal Updates

The [Defense Technology Search](#) now includes new libraries for the DTIC Research Summaries and the consolidated data from the E-Gov 2005 Data Call. Also added recently are libraries for the DTIC Technical Reports (TR), the Total Electronic Migration System (TEMS), and the Independent Research & Development (IR&D) database (restricted to DoD only).

2006 TARA Guidance documents are now available at the bottom of the [S&T Comp Review](#) page under S&T Planning Docs and Reports.

A Guide Through The Portal

DDR&E Initiatives

As the Chief Technology Officer for the Department of Defense, the DDR&E develops strategies to exploit technology

DDR&E Initiatives

New Tab



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Spotlight on R&E Success

A weekly article highlighting outstanding R&E Success Stories. These articles are randomly selected by DTIC from all Success Stories posted on DOD S&T Laboratory Web Sites.

DefenseLink Top News



SECURITY PATROL – U.S. Marine Corps Lance Cpl. Miez, a radio operator, and Cpl. Brad Adams, both with Lima Company, 3rd Battalion, 1st Marine Regiment, keep watch while on a security halt during a patrol down a riverbed in Barwana, Iraq, Jan. 15, 2006. U.S. Marine Corps photo by Cpl. Michael R. McMaugh [Hi-Res Photo](#) | [Lead Photo Archive](#)

Bush: Surveillance Plan Necessary, Lawful

WASHINGTON, Jan. 24, 2006 – President Bush yesterday called his terrorist surveillance plan a lawful, necessary step in the war against terrorism. Speaking at Kansas State University in Manhattan, Kan., Bush said he made the move to allow the National Security Agency to listen in on calls to terrorists as a means of protecting the American people. [Story](#) | [Remarks](#)

• Threats Must Be Taken Seriously, President Says

Industry Tapped for Ways to Counter IED Threat

WASHINGTON, Jan. 24, 2006 – Deputy Defense Secretary Gordon England called on what he called some of the best minds in the country today to help come up with new solutions to the threat improvised explosive devices pose to U.S. troops. [Story](#)

Department Sets Record With Charitable Giving

WASHINGTON, Jan. 24, 2006 – The Defense Department raised a record-high \$15.1 million in the 2005 Combined Federal Campaign, exceeding the department's goal by \$2.3 million. [Story](#)

Piracy Incident Reflects International Problem

WASHINGTON, Jan. 24, 2006 – A U.S. Navy ship captured a suspected pirate vessel in the Indian Ocean about 54 miles off the coast of Somalia Jan. 21. [Story](#) | [Suspected Pirates Captured Off Somali Coast](#)

Info Is as Important as Ammo in 'Long War'

WASHINGTON, Jan. 24, 2006 – In the so-called "Long War," information will be as important as ammunition, U.S. Army Lt. Gen. Ray Odierno said. [Story](#) | [Military Culture Must Change for 'Long War'](#)

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[Search DefenseLink](#)

Enter the **DEFENSE TECHNOLOGY Search**

Search digital libraries of comprehensive reports and data on DoD planned, ongoing and completed R&E efforts.

When prompted use your R&E Portal username and password. This will persist until you change your password or it expires. If your user password has changed since the last time you logged into the Defense Technology Search, click [here](#) to reset your password.

R&E Applications

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[IAC TEMS](#)

[In-House S&T Activities Report](#)

[Lab Demographics](#)

[Militarily Critical Technologies List \(Restricted\)](#)

[Private STINET](#)

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R&E Links

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[Advanced Concepts Technology Demonstrations](#)

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Summary

- **PB08 request is lower than the PB07 request but still represents a solid investment compared to historical averages**
 - **Current S&T program is still strong**
 - **Investment increased in QDR-highlighted capabilities**
- **Cautionary notes**
 - **OSD generally up more than Services; Services are less than 50% of total S&T budget**
 - **Workforce of the future remains an issue**
 - **Impact of Services activity in Iraq and Afghanistan limits discretionary programs**