



NPS Defense Affordability Panel



*Dr. Nancy L. Spruill
Director, Acquisition Resources and Analysis
Office of the Under Secretary of Defense for Acquisition, Technology and Logistics*



From the Secretary...

“Even as we face these considerable pressures, including the requirement of the Budget Control Act to reduce defense spending by what we have now as the number of \$487 billion over 10 years, I do not believe -- and I’ve said this before – that we have to choose between our national security and fiscal responsibility. The Department of Defense will play its part in helping the nation put our fiscal house in order.”

*Leon E. Panetta
Secretary of Defense
January 5, 2012*



USD(AT&L) Priorities

- 1. Support the Forces Engaged in Overseas Contingency Operations**
- 2. Achieve Affordable Programs**
- 3. Improve Efficiency**
- 4. Strengthen the Industrial Base**
- 5. Strengthen the Acquisition Workforce**
- 6. Protect the Future**

Frank Kendall
Acting Under Secretary of Defense
(Acquisition, Technology & Logistics)
October 7, 2011



Agenda

- **WSARA & NDAA Legislation**
- **Affordability**
- **Cost Growth**



Weapon Systems Acquisition Reform Act 2009

“The purpose of this law will be to limit cost overruns before they spiral out of control. It will strengthen oversight and accountability by appointing officials who will be charged with closely monitoring the weapons systems we're purchasing to ensure that costs are controlled. If the cost of certain defense projects continue to grow year after year, those projects will be closely reviewed, and if they don't provide the value we need, they will be terminated. This law will also enhance competition and end conflicts of interest in the weapons acquisitions process so that American taxpayers and the American military can get the best weapons at the lowest cost.”

**Signing Statement
May 22, 2009**

BARACK OBAMA



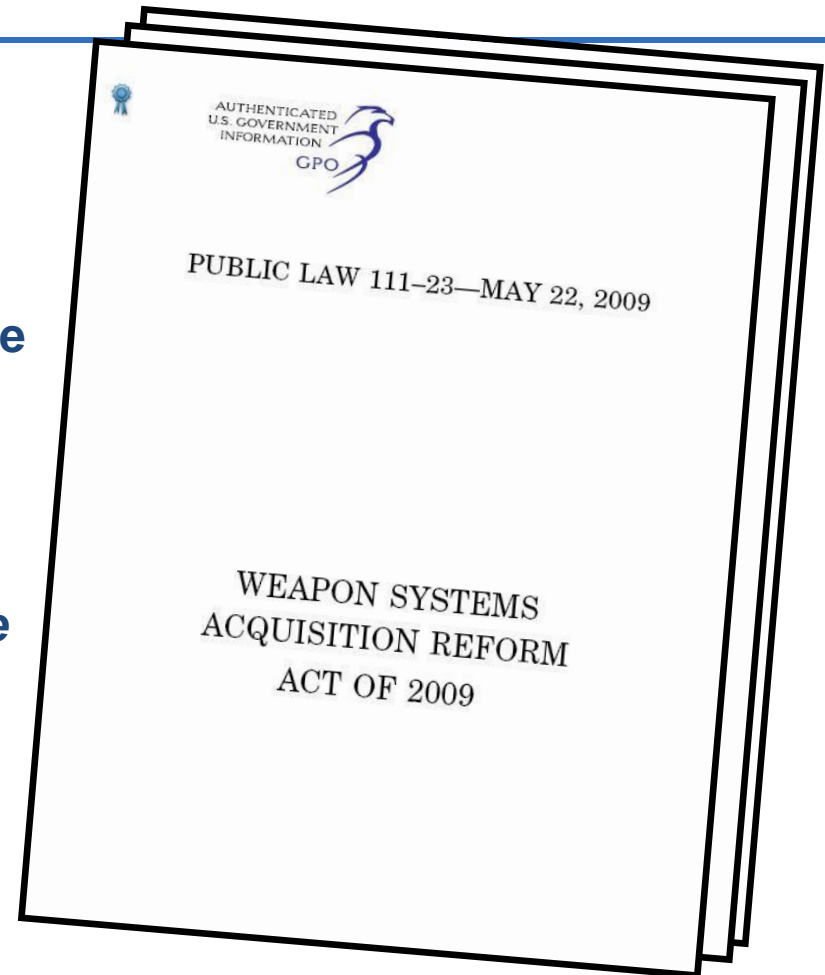
Weapon Systems Acquisition Reform Act (WSARA) of 2009

WSARA Goals:

- *Improve the effectiveness of the acquisition system*
 - Strengthen the front end of the process
 - Strengthen the execution phase
- *Improve the acquisition workforce*
 - Improve effectiveness
 - Increase size

Focus of Legislation:

- *Primarily from requirements generation to post-EMD*



NDAA Legislative Change since WSARA 2009

Primary areas of NDAA focus since 2009:

- **Management of MAIS programs**
- **Services Acquisition**
- **Sustainment and O&S funding**
- **Acquisition Workforce size & funding**
- **Rapid Acquisition Process**



USD(AT&L) 2012 Initiatives

- 1. Institute a system to measure the productivity and performance of the acquisition system on a program basis**
- 2. Institute a system to measure the productivity and performance of acquisition institutions**
- 3. Elevate the status, prestige, and professional standards of acquisition personnel focusing on key leaders**
- 4. Increase the cost consciousness and cost-related performance of the total DoD AT&L workforce**
- 5. Institute a process for defining the affordability of MDAPs to include sustainment**
- 6. Establish an internal ability to evaluate the impact of acquisition decisions on the industrial base**
- 7. Strengthen proactive service contracting management at the major functional level**
- 8. Achieve small business goals**
- 9. Strengthen ties to the requirements community**



Affordability

- **Affordability review now required at MS A; directs that we establish quantifiable goals for unit production cost and sustainment costs**
- **Affordability is program and a portfolio attribute**
- **Affordability has two main components:**
 - **How likely are future costs to exceed projected resources?**
 - **What do we have to give up in order to buy this?**
- **Example: Army Common Infrared Countermeasure (CIRCM) from MS A decision (approved Dec 2011)**



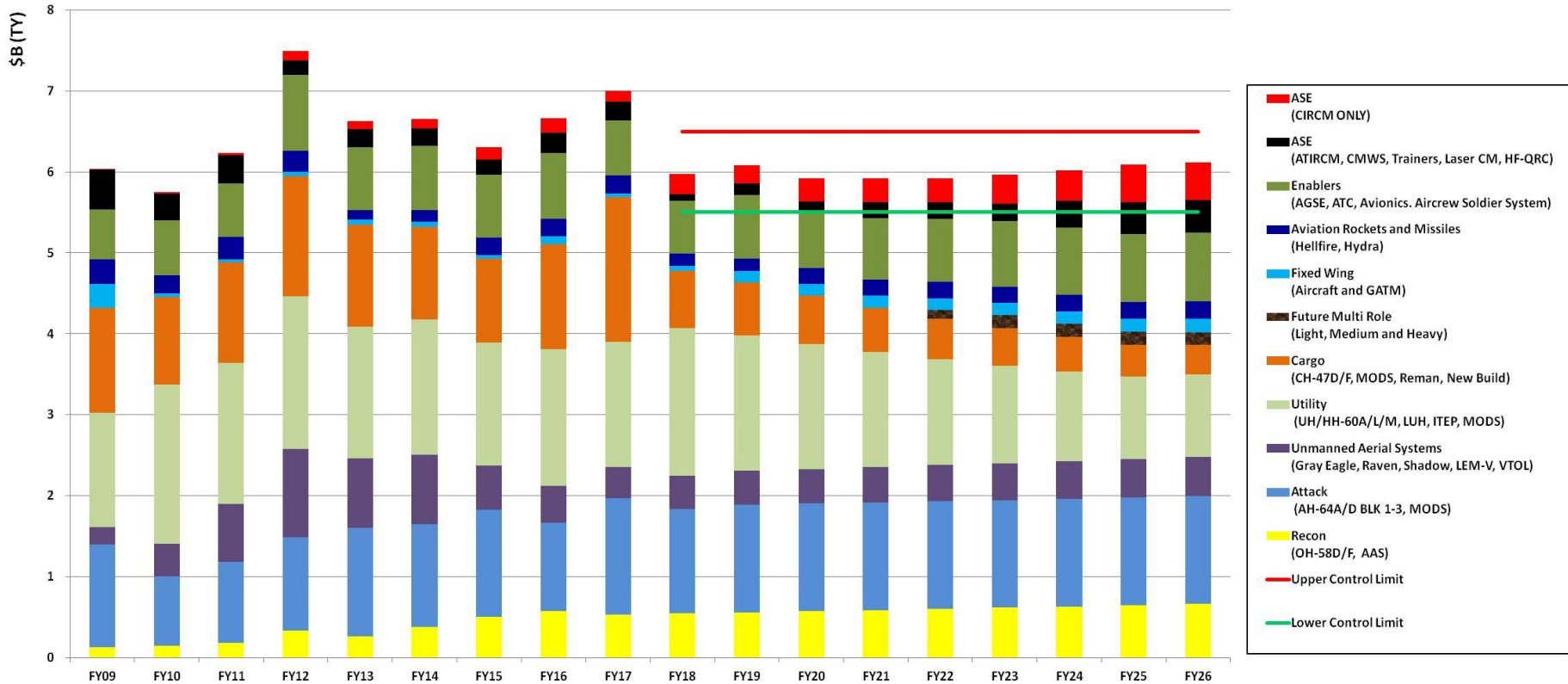
What is CIRCM and Why Does DoD Need It?

- **CIRCM will be a light-weight, low cost, highly reliable, laser-based countermeasure system designed to work in conjunction with Service missile warning systems**
 - **Counters IR missiles in all delivery modes for all rotary-wing, tilt-rotor, and small fixed wing aircraft across the DoD.**

- **Enables application of laser-based IR countermeasure capability across significantly more aircraft types than the current ATIRCM/DoN LAIRCM solutions**
- **Complements current IR countermeasures (flares)**
- **Enables quicker reaction time against IR missile engagements.**
 - **Laser fires before flares**



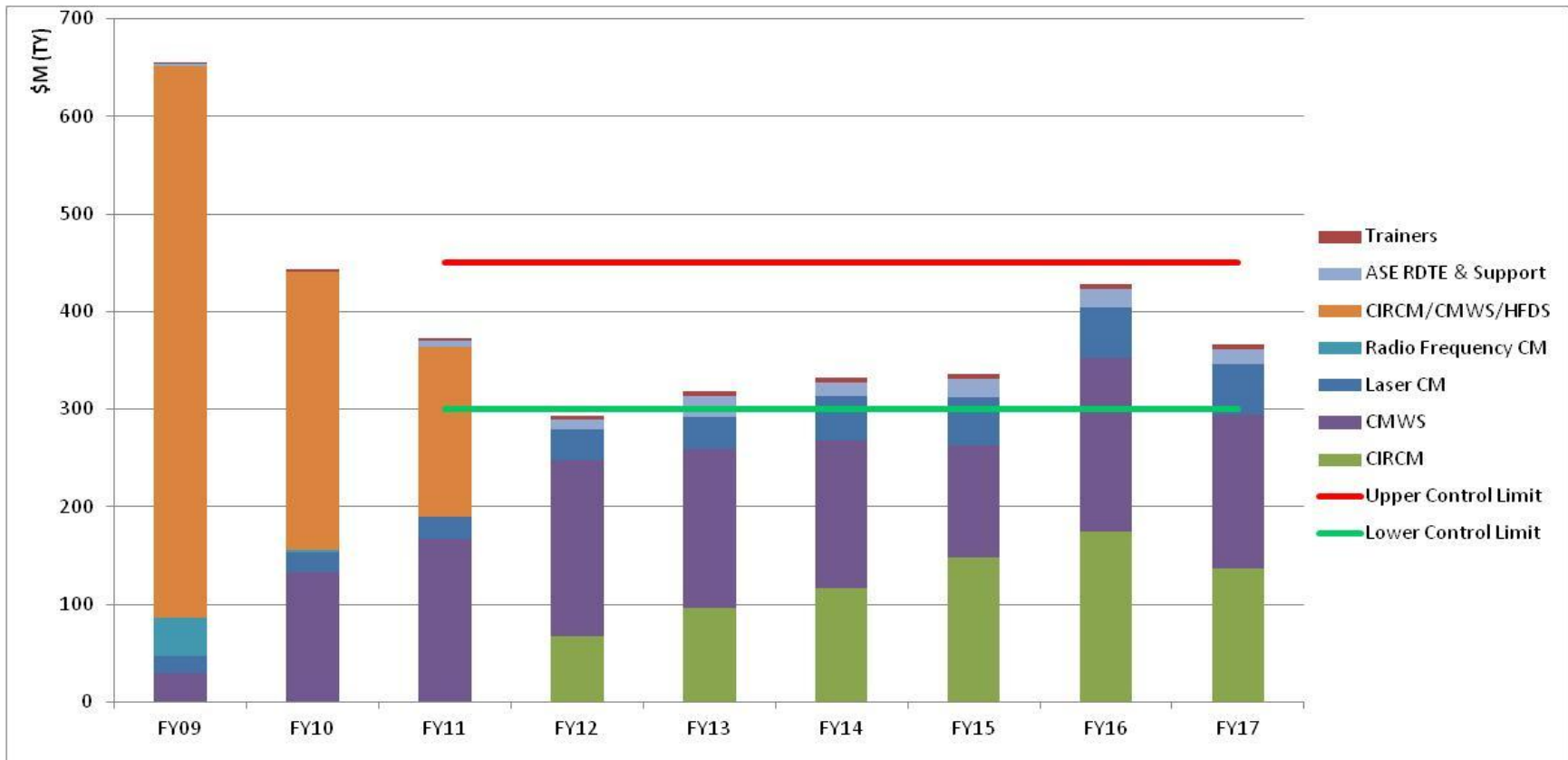
Aviation Battlefield Operating Systems (BOS) Funding Through POM 13-17



- Portfolio upper and lower controls account for reduced availability of resources in out years
- The portfolio has means to accommodate changes in cost thru mechanisms such as rate of production adjustments within the various programs of the portfolio



Aircraft Survivability Equipment (ASE) Portfolio Funding



- CIRCM comprises 37% of the ASE portfolio in POM 13-17
- CIRCM must remain under \$225m/yr to remain affordable



Affordability Assessment - CIRCM

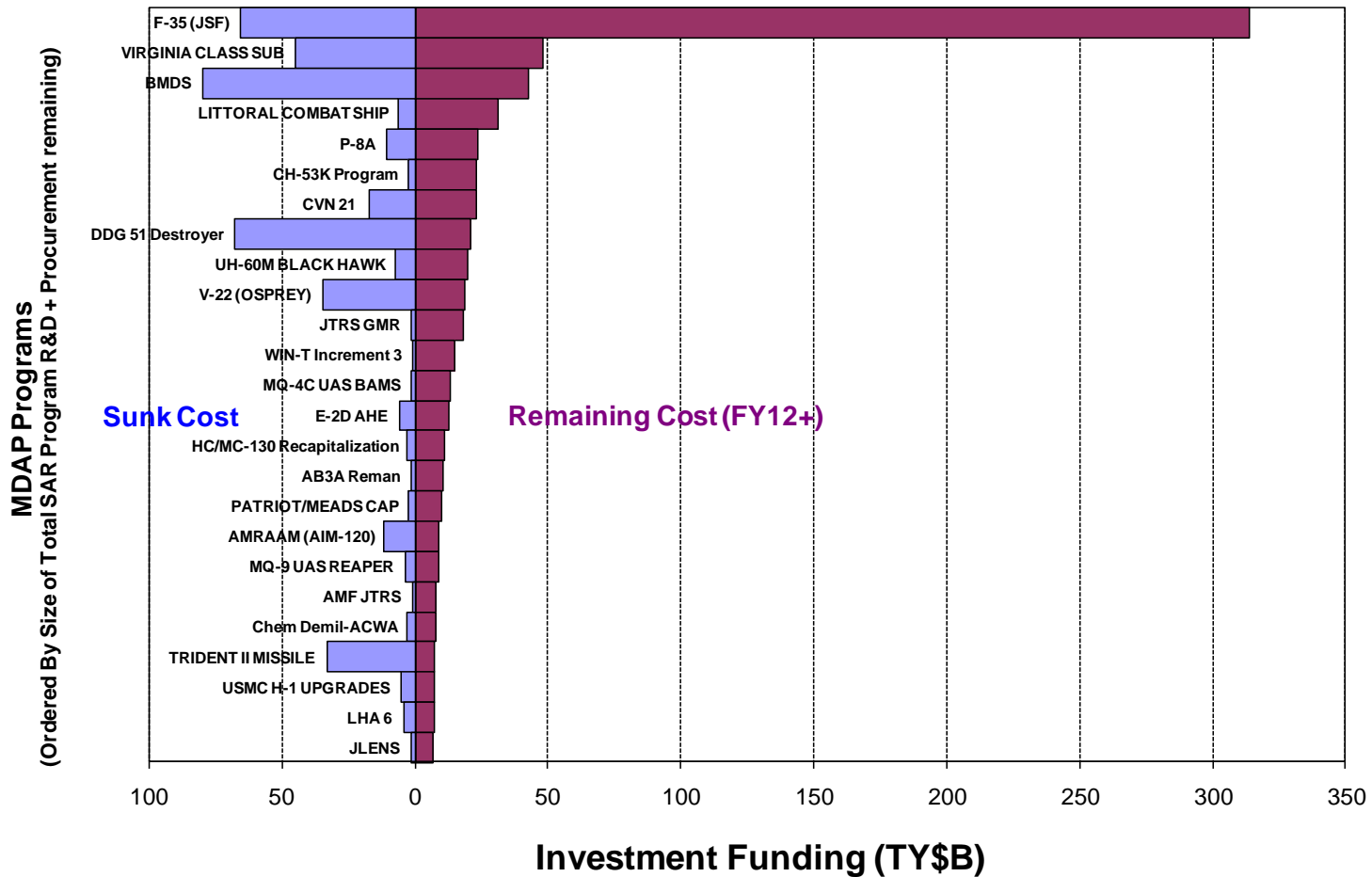
“The Army shall manage the program to remain within an affordability target (maximum unit cost) of Base Year 2011 (BY11) \$3.75M based on Army Aviation Aircraft Survivability Equipment portfolio budget estimated limit of \$225M per year and an assumed minimum average procurement rate of 60 B-Kits (mission equipment) per year and an average annual Operating and Support Cost (O&S) target of \$72.4k per unit, with the target to be validated at MS B. The CAPE ICE anticipated Average Procurement Unit Cost (APUC) of \$2.5M shall be used as the basis for pre-MS B decision making and systems engineering tradeoff analysis to reduce costs.”

--Common Infrared Countermeasure (CIRCM) Program Milestone (MS) A Acquisition Decision Memorandum (ADM), 28 December 2011

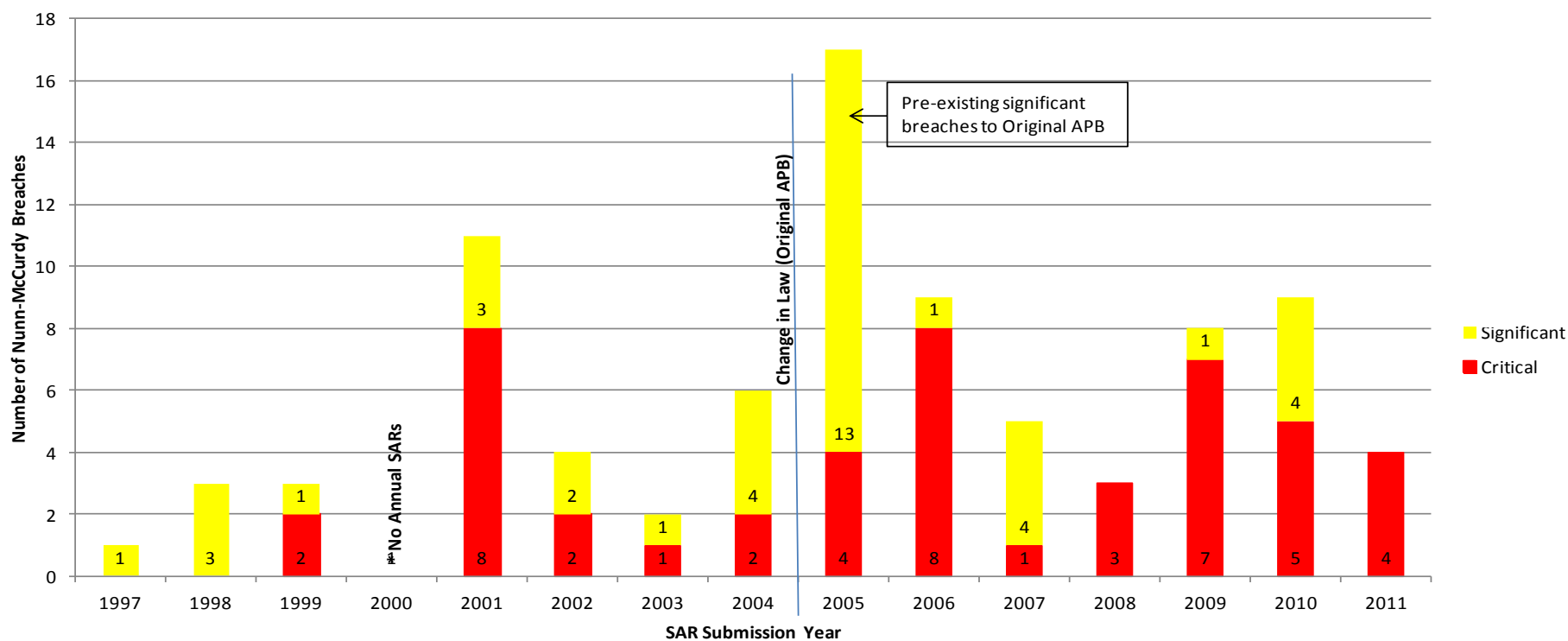


DoD Top 25 Acquisition Programs

MDAP "Sunk" vs "To Complete" Funding



Critical & Significant Nunn-McCurdy Breaches Since 1997



2011: AIM-9X Block I (program cancelled), C-130 AMP (program cancelled), JLENS (review in progress), JTRS GMR (program cancelled during review)

2012 (Projected): EELV (streamlined certification in progress), CVN 78 Class/EMALS (potential)



Critical Breaches Since 2006

- DoD reported 28 critical Nunn-McCurdy breaches since 2006:
 - Army: AB3, ARH*, ATIRCM/CMWS, Excalibur, GMLRS, **JLENS**, Land Warrior**, WIN-T
 - Navy: **AIM-9X**, DDG 1000, E-2D AHE, EFV(2)** , RMS, VH-71*
 - Air Force: AEHF, C-5 RERP, **C-130 AMP**, **EELV(2)**, Global Hawk, JASSM, JPATS, WGS
 - DoD: Chem Demil-ACWA(2), F-35, JTRS GMR*

* Program cancelled during critical Nunn-McCurdy review

** Cancellation of the program resulted in a critical Nunn-McCurdy breach.



Significant Breaches Since 2006

- DoD reported 12 significant Nunn-McCurdy breaches since 2006:
 - Army: ARH, FBCB2, Inc1 E-IBCT*, Javelin, JLENS
 - Navy: H-1 Upgrades
 - Air Force: AEHF, C-27J, NPOESS, C-130 AMP
 - DoD: Chem Demil-ACWA, JTRS GMR
- * This program reported a significant Nunn-McCurdy breach in December 2010 and was cancelled in February 2011.



MDAP Cost Growth

- **There are numerous methods we can use to classify cost growth**
- **Nunn-McCurdy (Congress) – measures only unit cost growth**
- **AT&L and GAO developed methodology to eliminate cost growth due to quantity changes, and also accounts for program age**



AT&L / GAO Method

- **AT&L had previously disagreed with GAO on cost growth methodology in two key areas:**
 - Old programs (many back to early 1980's) continued to carry cost growth that had long since been corrected
 - Quantity changes should not be considered in cost growth calculations
- **More than two years of discussion and negotiation has resulted in a shared cost growth methodology both organizations respect**
- **New Methodology: Cost growth will be reported, for the current portfolio only, over a one year period AND funding adjustments due to quantity changes will be accounted for in the final calculation**



1 Year Total Acquisition Cost (TAC) Growth, Adjusted for Quantity

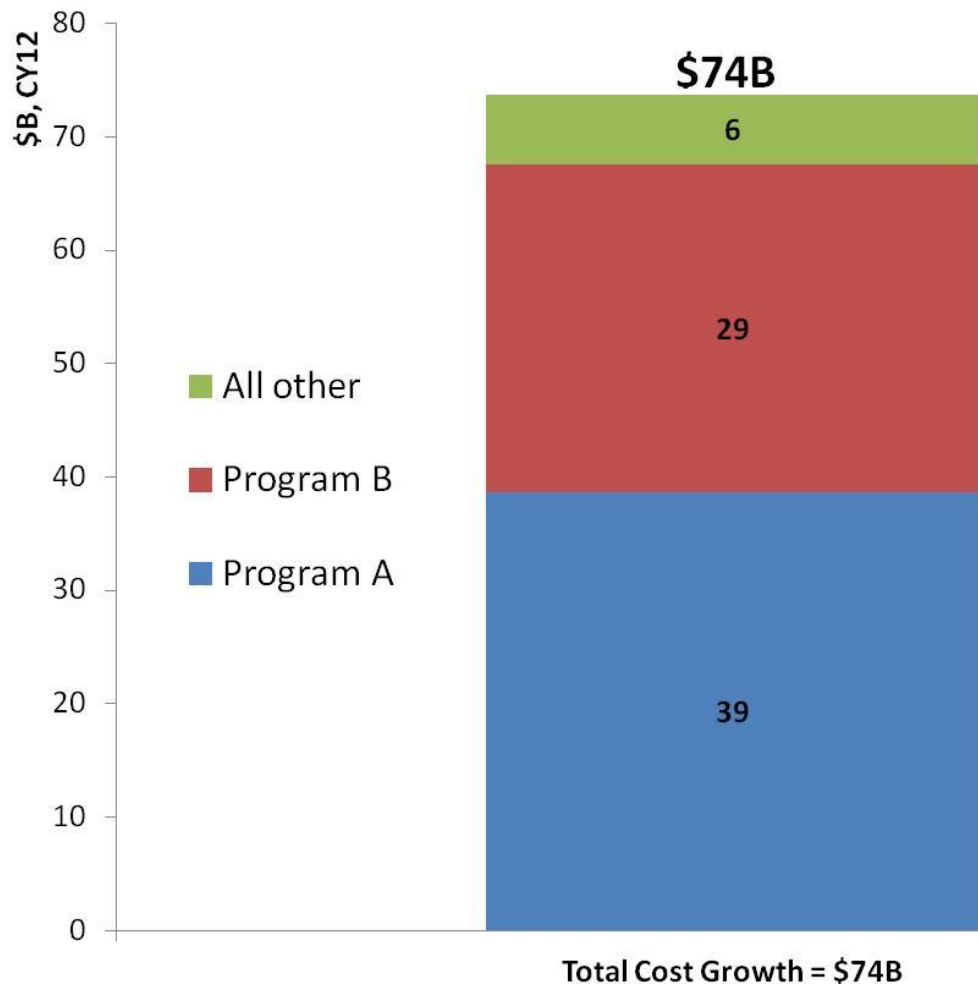
Top 10

Program	Dec 2009 TAC	Dec 2010 TAC	TAC Growth (1 yr)	\$ Change due to Quantity	Quantity Adjusted TAC Growth (1 yr)
F-35	287.9	326.5	38.6	0.0	38.6
DDG 51	95.8	101.8	6.0	3.0	3.0
SBIRS HIGH	16.2	18.3	2.1	0.0	2.1
CHEM DEMIL-ACWA	8.1	10.2	2.1	0.0	2.1
STRYKER	16.4	18.2	1.8	0.7	1.1
TRIDENT II MISSILE	52.2	53.2	1.0	0.0	1.0
AEHF	13.1	14.1	1.0	0.0	1.0
DDG 1000	20.1	21.0	0.9	0.0	0.9
NPOESS	6.4	7.3	0.9	0.0	0.9
LHA 6 AMERICA CLASS	6.5	10.1	3.6	2.8	0.8
		Sub-Total	58.1	6.5	51.6
Grand Total (all MDAPs)			73.7	26.6	47.1

For the 2011 MDAP portfolio, we had \$73.7B in total cost growth from Dec09 SARs to Dec10 SARs . About \$26.6B of that is due to changes in quantity, and about \$47.1B is true “cost growth,” with Procurement growth about \$37B and RDT&E growth about \$10B.



Total Acquisition Cost Growth

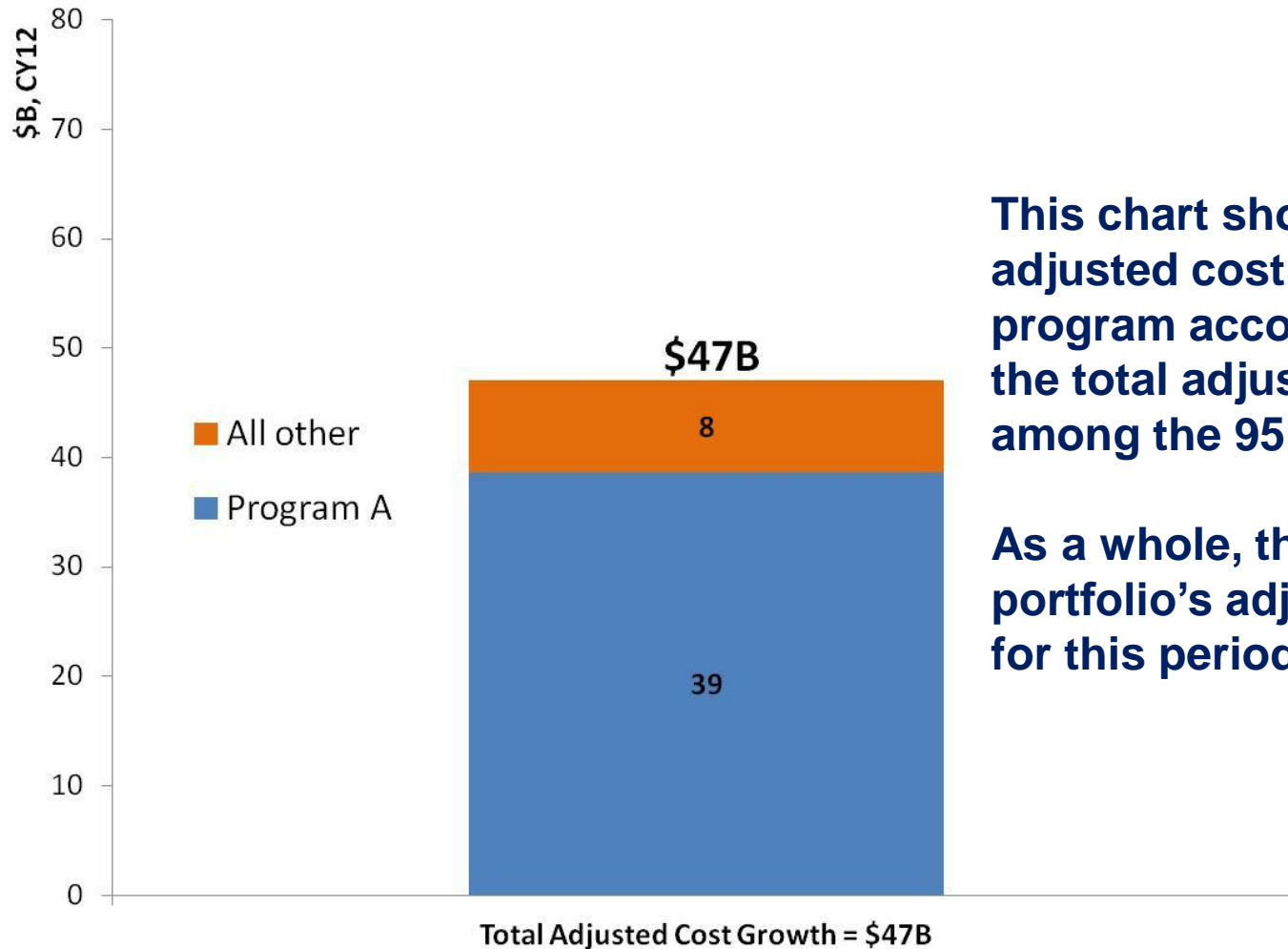


This chart shows cost growth before quantity is considered. Total acquisition cost growth is extremely concentrated between these 2 programs, accounting for almost 92% of all acquisition cost growth for this year (95 MDAPs).

Program A cost growth was real, but Program B was entirely due to a quantity increase from the RDTE SAR to the production SAR. Previously, this would all have been lumped together as “cost growth.”



Quantity Adjusted Cost Growth



This chart shows quantity adjusted cost growth. A single program accounts for over 85% of the total adjusted cost growth among the 95 MDAPs

As a whole, the rest of the portfolio's adjusted cost growth for this period is low.



Cost Growth Summary

- Actual cost growth in the current portfolio, when adjusted for quantity, is almost totally concentrated in one program
- Cost growth is not confined to one type of program or Service
- Not all cost growth is bad, even after controlling for quantity; there are smart and necessary capability increases to platforms that result from deliberate & intelligent decision making for the benefit of the warfighter and National Security
- Changes in program quantities used as a tool to allow affordability – is there a better way?



Should Cost Presentation Template

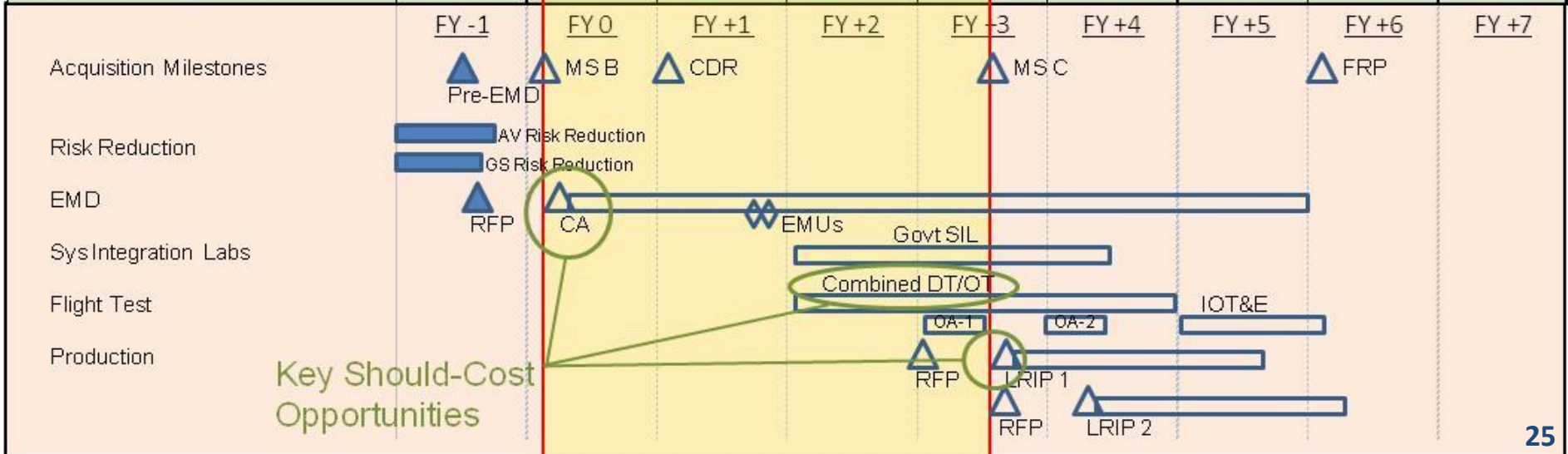
- The Program’s “should cost” is the set of program’s initiatives or opportunities to reduce costs below the Independent Cost Estimate (ICE) level. It is primarily the basis for a negotiating position and result for pending contracts that will be below the ICE, but it also includes measures taken to reduce cost beyond near term contract actions.
- See AT&L guidance memos on developing should-cost positions (<https://portal.acq.osd.mil/portal/server.pt?open=17&objID=106417&mode=2&cached=true>):
 - “Better Buying Power: Guidance for Obtaining Greater Efficiency and Productivity in Defense Spending,” September 14, 2010
 - “Implementation Directive for Better Buying Power – Obtaining Greater Efficiency and Productivity in Defense Spending,” November 3, 2010
 - “Implementation of Will-Cost and Should-Cost Management,” April 22, 2011
 - “Should-Cost and Affordability,” August 24, 2011



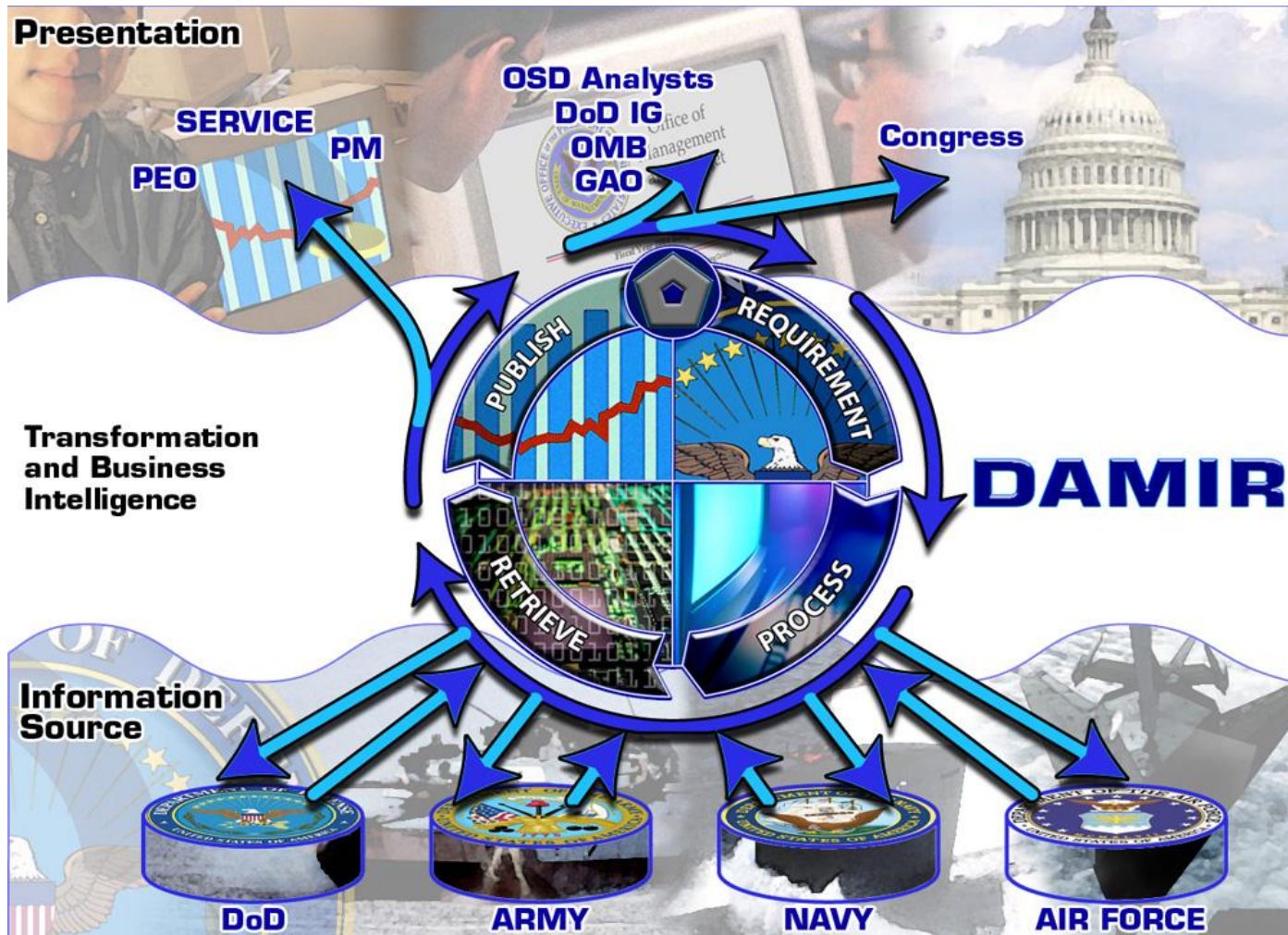
PROGRAM SHOULD-COST SUMMARY EXAMPLE

Highlight phase being entered

\$M	Prior	FY 0	FY +1	FY +2	FY +3	FY +4	FY +5	To Comp	Total
Total Acq Will Cost (ICE)	200.0	45.0	50.0	62.0	85.0	70.0	57.0	110.0	679.0
EMD Costs (ICE)		40.0	25.0	15.0	15.0	10.0			105.0
EMD Should-Cost Estimates		32.0	20.0	12.8	13.0	9.0			86.8
Production Costs (ICE)			20.0	32.0	55.0	55.0	42.0	70.0	274.0
Production Should-Cost Est.			20.0	30.0	50.0	45.0	32.0	50.0	227.0
Ops & Support Costs (ICE)				10.0	10.0	10.0	10.0	30.0	70.0
Ops & Support Should-Cost Est.				10.0	10.0	5.0	5.0	15.0	45.0
Other Costs (ICE)	200.0	5.0	5.0	5.0	5.0	5.0	5.0	10.0	240.0
Other Should Cost Estimates		4.0	4.0	4.0	4.0	4.0	4.0	8.0	32.0
Total Should Cost Estimate	200.0	36.0	44.0	56.8	77.0	63.0	41.0	73.0	590.8
Net Should Cost Savings		9.0	6.0	5.2	8.0	17.0	16.0	37.0	98.2
Actuals/New Estimate	200.0	36.0	44.0	56.8	77.0	63.0	41.0	73.0	590.8



Acquisition Visibility Today



Why We Do It

- ▶ The authority to provide on-demand acquisition information
- ▶ We are the capability that meets leadership's requirements by providing complete, instant access to authoritative and accurate data

Vision



Seamless, transparent management of DoD's acquisition portfolio

Mission



Empower leadership to deliver effective and efficient Warfighter and business-decision capabilities

Sign Outside My Boss's Door...Measure Everything With Data!

**“IN GOD WE TRUST, ALL OTHERS
MUST BRING DATA”**

W. EDWARDS DEMING