



73rd MORSS CD Cover Page

UNCLASSIFIED DISCLOSURE FORM CD Presentation

UNCLASSIFIED

712CD

For office use only 41205



U.S. AIR FORCE

21-23 June 2005, at US Military Academy, West Point, NY

Please complete this form 712CD as your cover page to your electronic briefing submission to the MORSS CD. Do not fax to the MORS office.

Author Request (To be completed by applicant) - The following author(s) request authority to disclose the following presentation in the MORSS Final Report, for inclusion on the MORSS CD and/or posting on the MORS web site.

Name of Principal Author and all other author(s): Maj. KiraBeth Jeffery, Mr. Ray Chapman

Principal Author's Organization and address:

AFSAA/SAPC
1777 N. Kent St.
Rosslyn, VA 22209

Phone: (703) 588-6926 _____

Fax: (703) 588-0232 _____

Email: kirabeth.jeffery@pentagon.af.mil;
raymond.chapman@pentagon.af.mil _____

Original title on 712 A/B: Linking Performance Metrics to Capabilities_Based Planning Metrics _____

Revised title: _____

Presented in (input and Bold one): (WG_24_X_, CG_E_, Special Session ___, Poster, Demo, or Tutorial):

This presentation is believed to be:

UNCLASSIFIED AND APPROVED FOR PUBLIC RELEASE

Integrity - Service - Excellence

UNCLASSIFIED

Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 22 JUN 2005	2. REPORT TYPE N/A	3. DATES COVERED -	
4. TITLE AND SUBTITLE Linking Performance Metrics to Capabilities-Based Planning Metrics		5a. CONTRACT NUMBER	
		5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)		5d. PROJECT NUMBER	
		5e. TASK NUMBER	
		5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AFSAA/SAPC 1777 N. Kent St. Rosslyn, VA 22209		8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)		10. SPONSOR/MONITOR'S ACRONYM(S)	
		11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release, distribution unlimited			
13. SUPPLEMENTARY NOTES See also ADM201946, Military Operations Research Society Symposium (73rd) Held in West Point, NY on 21-23 June 2005. , The original document contains color images.			
14. ABSTRACT			
15. SUBJECT TERMS			
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified	UU
			18. NUMBER OF PAGES 23
			19a. NAME OF RESPONSIBLE PERSON

Headquarters U.S. Air Force

Linking Performance Metrics to Capabilities-Based Planning Metrics

73rd MORSS



U.S. AIR FORCE

**Maj Kira Jeffery
Air Force Studies and Analyses Agency
Resource Analysis Directorate**

22 Jun 05

Integrity - Service - Excellence



U.S. AIR FORCE

Outline



- **Background**
- **Analysis Needs**
- **Government Performance and Results Act (GPRA) of 1993**
- **Metrics Linkages**
- **Conclusions**



U.S. AIR FORCE

Background



“Looking ahead, the Department must further intensify the transformation of its support structure and management practices. We must continue to upgrade performance and accountability, streamline and strengthen management, and ensure that every defense dollar is expended as wisely as possible.”

- Donald Rumsfeld, Secretary of Defense
DoD Performance and Accountability Report
Working Draft 11-26-03



U.S. AIR FORCE

Background Guidance



SecDef Testimony to Senate Armed Services Committee, 3 Feb 04

We have moved from a "threat-based" to a "capabilities- based" approach to defense planning...

... focusing not only on who might threaten us, or where, or when – but more on *how* we might be threatened, and what portfolio of capabilities we will need to deter and defend against those new threats.

Prepared Testimony Of U.S. Secretary Of Defense
Donald H. Rumsfeld
Senate Armed Services Committee
The President's 2005 Budget Request
For The Department Of Defense
February 3, 2004

INTRODUCTION

Mr. Chairman, members of the Committee, I am pleased to be here today to discuss the progress in the global war on terrorism, our transformation efforts, and to discuss the President's 2005 budget request for the Department of Defense.

First, I want to commend the courageous men and women in uniform and the Department civilians who support them. They are remarkable – and what they have accomplished since our country was attacked 28 months ago is truly impressive. In less than 2½ years, they have:

- Overthrown two terrorist regimes, rescued two nations, and liberated some 50 million people;
- Captured or killed 45 of the 55 most wanted in Iraq– including Iraq's deposed dictator, Saddam Hussein;
- Hunted down thousands of terrorists and regime remnants in Iraq and Afghanistan;
- Captured or killed close to two-thirds of known senior al-Qaeda operatives;
- Disrupted terrorist cells on most continents; and
- Likely prevented a number of planned terrorist attacks.

Our forces are steadfast and determined. We value their service and sacrifice, and the sacrifice of their families, who also serve.

And we thank the members of this Committee for the support you have shown for the troops during the global war on terror. With your support, we have the finest Armed Forces on the face of the Earth.

We have a common challenge: to support the troops and to make sure they have what they will need to defend the nation in the years ahead.

We are working to do that in a number of ways:



One thing we have learned in the global war on terror is that, in the 21st century, what is critical to success in military conflict is not necessarily mass as much as it is capability. ... overmatching the enemy with superior speed, power, precision and agility.



U.S. AIR FORCE

Background



- **GPRA of 1993 requires federal agencies to provide annual performance plans**
 - To cover program activities set in budgets, starting FY99
 - To reflect how well an agency is progressing toward achieving its goals
 - Includes metrics on performance
- **SecDef initiated Capability-Based planning concept in 2002**
 - Need robust set of metrics to measure capabilities
 - AF capabilities-based analytic methodology examines proficiency, sufficiency & severity using capability metrics
 - Identifies AF capability shortfalls, gaps and potential tradespace
- **Purpose of brief is to explore potential linkage(s) between performance metrics and capability metrics**
 - Could identify common taxonomy between defined set of metrics
 - Provides an approach to monitor health of capabilities & comply with GPRA



U.S. AIR FORCE



Analysis Needs

- Effects driven *management* measures how well we are doing with the assets we have
- Effects driven capability-based *operations* measures how well our capabilities are balanced to a broad spectrum of threats

WHICH DEFINED SET OF METRICS COMES FIRST??

- Statement of capability is first required, then a report card on how well we are doing
 - Need to ask first “how much capability do I need”
 - Then ask “how well are we doing with the capabilities we have”
- Combining these relationships will define how the “end-to-end” analysis is shaped and shed light on where capability investment decisions should be made



U.S. AIR FORCE

Effects Driven Capabilities Goal



- **Define desired effects to support NSS, NDS, NMS, JOpsC, JOCs, JFCs, and JICs**
 - **Should overlay Capabilities-Based Planning, Programming, Budgeting & Execution (PPBE) Process**
 - **Yields prioritized joint capability shortfalls, gaps and tradespace**
 - **Should measure proficiency, sufficiency, and severity (impact)**
 - **Influences requirements, programming, S&T, acquisition decisions**



U.S. AIR FORCE

GPRA Goal



“The Government Performance and Results Act of 1993 seeks to shift the focus of government decision making and accountability away from a preoccupation with the activities that are undertaken - such as grants dispensed or inspections made - to a focus on the results of those activities, such as real gains in employability, safety, responsiveness, or program quality. Under the Act, agencies are to develop multiyear strategic plans, annual performance plans, and annual performance reports.”



U.S. AIR FORCE

GPRA



■ Required performance plans must:

1. Establish performance goals to define levels of performance to be achieved
2. Express those goals in an objective, quantifiable, and measurable form
3. Briefly describe the operational processes, skills and technology, and the human, capital, information, or other resources required to meet the goals
4. Establish performance measures for assessing the progress toward or achievement of the goals
5. Provide a basis for providing actual program results with the established goals
6. Describe the means to be used to verify and validate measured values



U.S. AIR FORCE

Example Metrics Linkages



- **MID 901/910/913 Performance Measure Development**
 - **Combines Secretary's Annual Defense Report (ADR) with GPRA required performance plan**
 - **MID 901 - Assigns performance metrics to Component level**
 - **MID 910 – Provides instructions to Components to reflect performance metrics with President's Management Agenda (PMA)**
 - **MID 913 - Implementation of PPBE**

Drawback – they do not address capabilities



U.S. AIR FORCE

Example Metrics Linkages



■ GPRA

- Ties strategies and performance to budget
- Establishes critical performance measures to determine if effects achieved

Drawback – does not address capabilities



U.S. AIR FORCE

Example Metrics Linkages



- **AF Performance Measures Reporting System (AFPMRS)**
 - **Approved (SecAF/CSAF) system for data input and measures reporting**
 - **Single, integrated effects-based performance management program**
 - **Drawback – effects based management, not effects based ops**

Drawback – does not address capabilities



Example Metrics (& Inconsistencies)



- **Master Capability Library (MCL)**
 - **Sub-capability – “Generate the Mission”**
 - **Sub-capability – “Prepare and Generate the Mission Element”**
 - **Measure – “Bomber (or other aircraft type) Mission Capability (MC) Rate” with no specific definition of MC rate**
- **AFPMRS**
 - **AF Goal – “Define AF Requirements for AEF”**
 - **Task – “Execute Force Module”**
 - **Measure – “Aircraft Mission Capable Rate” defined as the percentage of possessed aircraft that are capable of performing at least one of their assigned peacetime or wartime missions**



U.S. AIR FORCE

Conclusions



- **Capability-based metrics and GPRA required metrics should be inexorably linked to provide a clear picture of capability and performance across DoD**
- **For analysis to be repeatable, defensible, traceable, and transparent there should be a common taxonomy to the metrics**



U.S. AIR FORCE



Back Up



U.S. AIR FORCE

Involving Air Force Metrics



AFPMRS II

Home

Briefing

Tools

Search

Logout

Plan Selector

USAF

User Profile

Customize Homepage

Reports

Display Legend

Develop, Sustain, and Renew the Force

Shape the Force

- ⊘ 1.A.1 AFSCs Manned in Critical Skills (DP) *Monthly*
- ⬆ 1.A.2 Air Force Progress Towards PMA Competitive Sourcing Targets (DP) *Monthly*
- ? 1.B.2 Enlisted Numeric Retention Goal (DP) *Monthly*

Optimize Total Force

- ⬆ 1.B.1 Total Force Endstrength within 3% (DP) *Monthly*

Ensure Sustainable Military Tempo

- ? 1.C.1 Air Force PERSTEMPO (XO) *Monthly*

Assess Infrastructure, Budget, and Acquisition

Achieve Acquisition Excellence

- ⊘ 2.A.1 Assess Acquisition Programs (AQ) *Monthly*
- ⊘ 2.A.2 Budget Execution Efficiency (FM) *Monthly*
- ⬆ 2.A.3 Customer Wait Time (IL) *Monthly*

Improve Sustainment, Restoration, Modernization of Facilities

- ⊘ 2.B.1 Readiness of Facilities (IL) *Annually*
- ⊘ 2.B.2 Budget Spent on Infrastructure *Monthly*

Implement Performance-Based Budgeting

- ⊘ 2.C.1 Budget Tied to Performance *Monthly*

Define AF Requirements for AEF

Implement Capabilities-based CONOPS

- ⊘ 3.A.1 Percentage of UTCs in AEF Assessing Ability to Execute MISCAP (AEF Reporting tool (SIPRNET)) (XO) *Monthly*
- ⊘ 3.A.2 Current Capabilities Review and Risk Assessment (CRR A) *Monthly*

Execute Force Module

- ⬆ 3.B.1 Aircraft Mission Capable Rate (IL) *Monthly*
- ⬆ 3.B.2 PHA and Individual Medical Readiness (PIMR) (SG) *Monthly*

Increase Interoperability & Define Future Total Force

Define Future Total Force

- ? 4.A.1 Total Force Defined by CBMD Baseline Process (DP) *Quarterly*

Implement New Joint Concepts

- ⊘ 4.B.1 Joint Expeditionary Force Experiment (JEFX) *Monthly*
- ⊘ 4.B.2 Percentage of IT systems interoperable *Monthly*



DoD Framework

(Performance/Capabilities based POM/Budget)



Management Initiative Decision (MID) 901

Establishing Performance Outcomes and Tracking Performance Results for the Department of Defense

December 20, 2002

- Aligns the DoD's performance management activities with the PMA and DoD Risk Management Framework

Management Initiative Decision (MID) 910

Budget and Performance Integration Initiative

December 24, 2002

- Requires, for the FY05 President's Budget, that DoD Components associate 60% of the resources requested with performance metrics

Management Initiative Decision (MID) 913

Implementation of 2-year Planning, Programming, Budgeting & Execution process

May 22, 2003

- States that performance metrics (existing or TBD) will be the analytical underpinning to determine whether an appropriate allocation of resources exists in current budgets

BMMP (Business Management Modernization Program)

- Transform & modernize business process across the DoD/AF
- Standardize & integrate processes enabled by technology & systems
- Capitalize on DoD/AF strengths and infuse best practices into operations



U.S. AIR FORCE

Philosophy (TOA Alignment to Capabilities)

Program/Budget
Framework
(MID 913)

Force Mgmt	Opnal
Inst	Future Chalg

Congress

MID 901
BSC

Capabilities

MID 910
PBB

External
Reporting
Databases

Satisfies MID 913

Engine
Room
Capabilities
Focused & MCL/
CRRAs alignment

9 MCL Top-level
Capabilities aligned to
the 7 Capabilities in
the DoD P/B
Framework

Provides means to
create Rules Package
in ABIDES for
Capability Support
Indicators

MAJCOM's
Portfolios Aligned
to
MCL, RATs & CRRAs

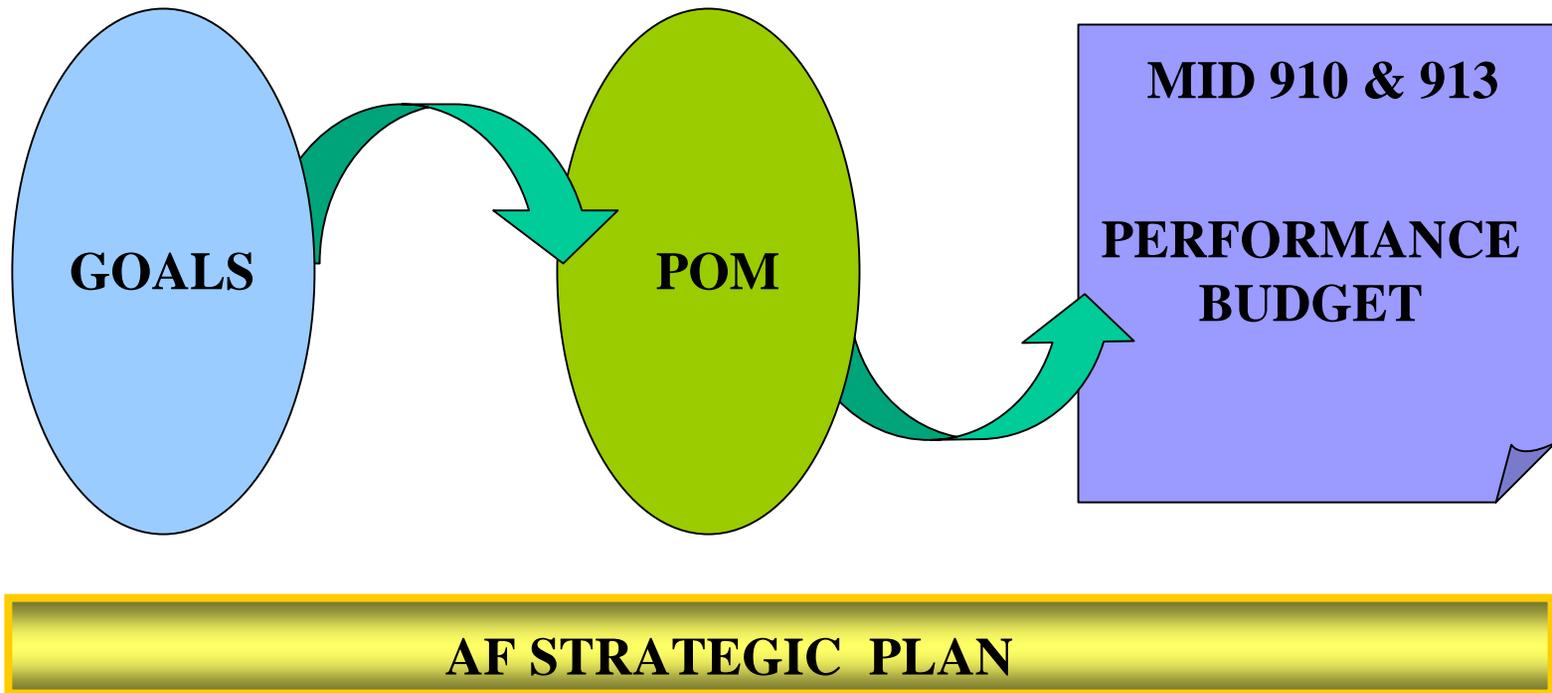
Panel's Portfolios
Aligned
To MCL &
CRRAs



Performance Budget or “Appropriate Allocation”



- A performance budget and incidentally the definition of “appropriate allocation” consists of a performance-oriented framework, in which strategic goals are paired with related long-term performance goals



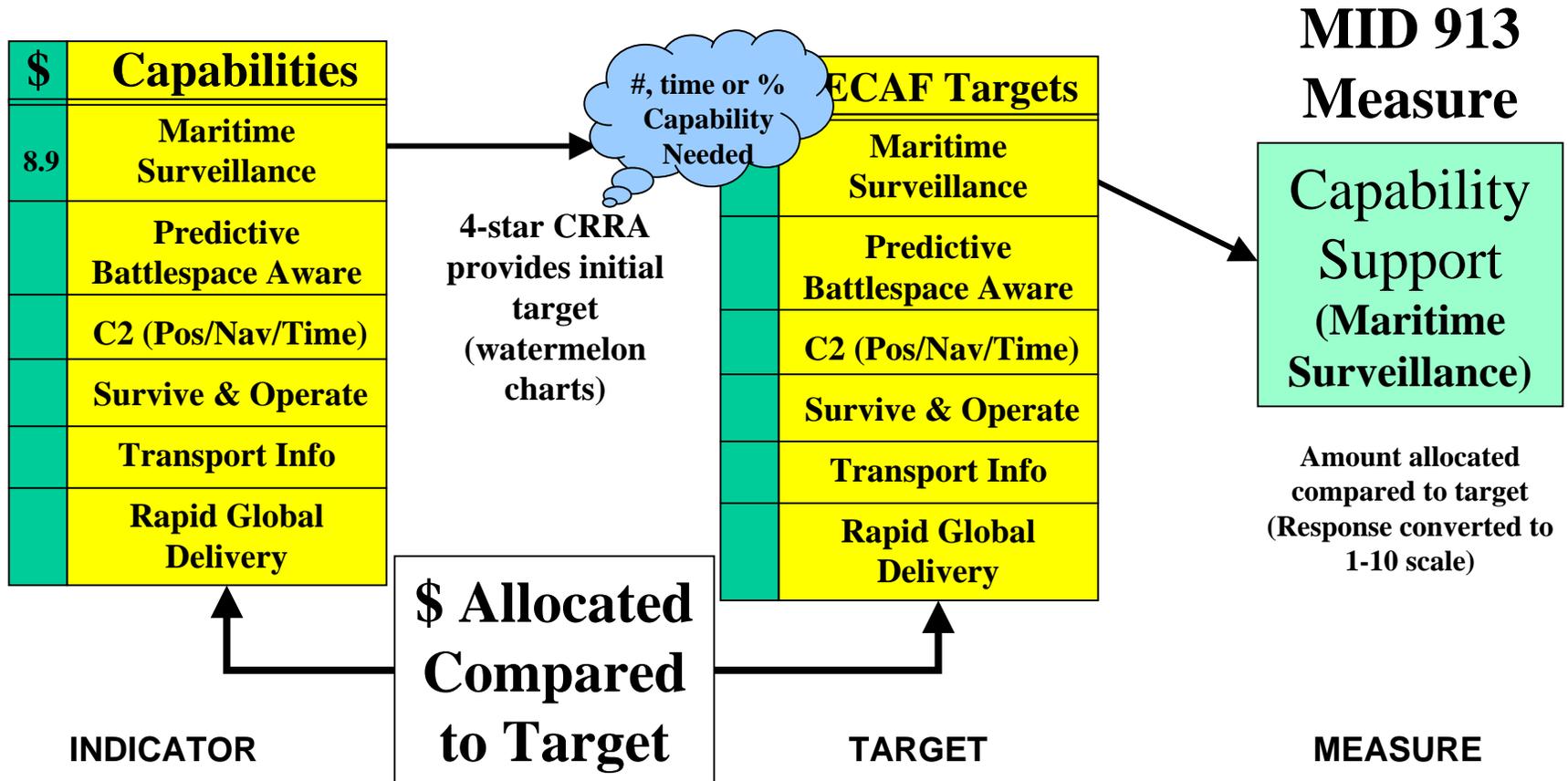
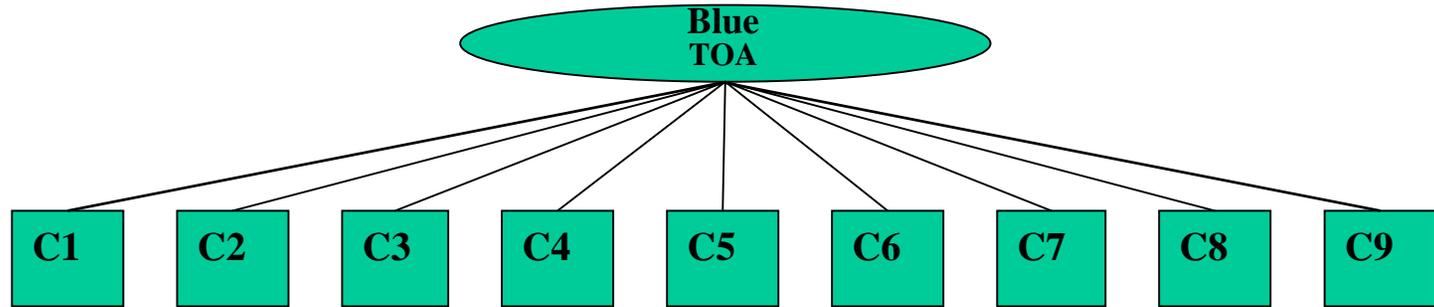


Capabilities Support Performance Measures



- **AF/XPPE is developing Capability Support Performance Measures**
 - Tied to a series of programs
 - Show percent of Blue TOA that supports the goals for each capability in the Master Capability Library
 - Blue TOA capability indicator will be available through ABIDES with a rules package
 - Goals established through the Integration CRRRA process
- **Will build a Rules Package in ABIDES to guarantee consistent, accurate reports of Blue TOA allocated to capabilities in the Master Capabilities Library**
 - Requires Panels, and PEMs to fill out data call
- **Provides AFCS Senior Leadership the opportunity to see the effect their decisions have on Capability Support Performance Measures**
 - Allows risk determination and compliance with Joint requirements prior to POM submission
 - Satisfies MID 913's requirement to prove "appropriate allocation of resources exists in current budgets"

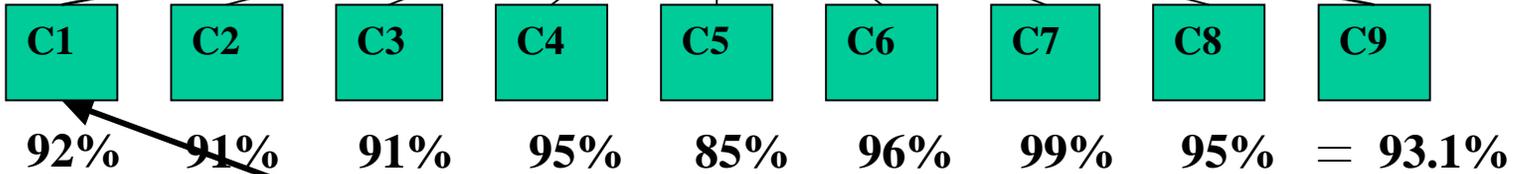
Notional Process to Achieve Capability Support Measures



Notional Process to Achieve Capability Support Measures

Blue TOA

Potential Roll-up Measures
AFPMRS II (1 to 9)



“Appropriate Allocation”

MID 913
Measure

Capability Support
(Maritime Surveillance)

Response converted to
1-10 scale

C1	Capability Support Measures
9.5	Maritime Surveillance
9.3	Air & Space Surveillance
8.0	Environmental & Information Surveillance
10.0	Maritime Reconnaissance
9.0	Air/Space Reconnaissance
9.2	Enviro/Information Reconnaissance

Measures success toward target and can be rolled up to a composite measure for each Top-level Capability

Repeat for each Top-level Capability

- 1 to 9 Measures for AFPMRS II
- Capabilities roll-up to an over-all support measure