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Strategic Management System for Navy Acquisition

Gary E. Christle • Donald A. Birchler

CNA

4825 Mark Center Drive • Alexandria, Virginia 22311-1850

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Jino Choi, Director
Cost and Acquisition Team
Resource Analysis Division

CNA

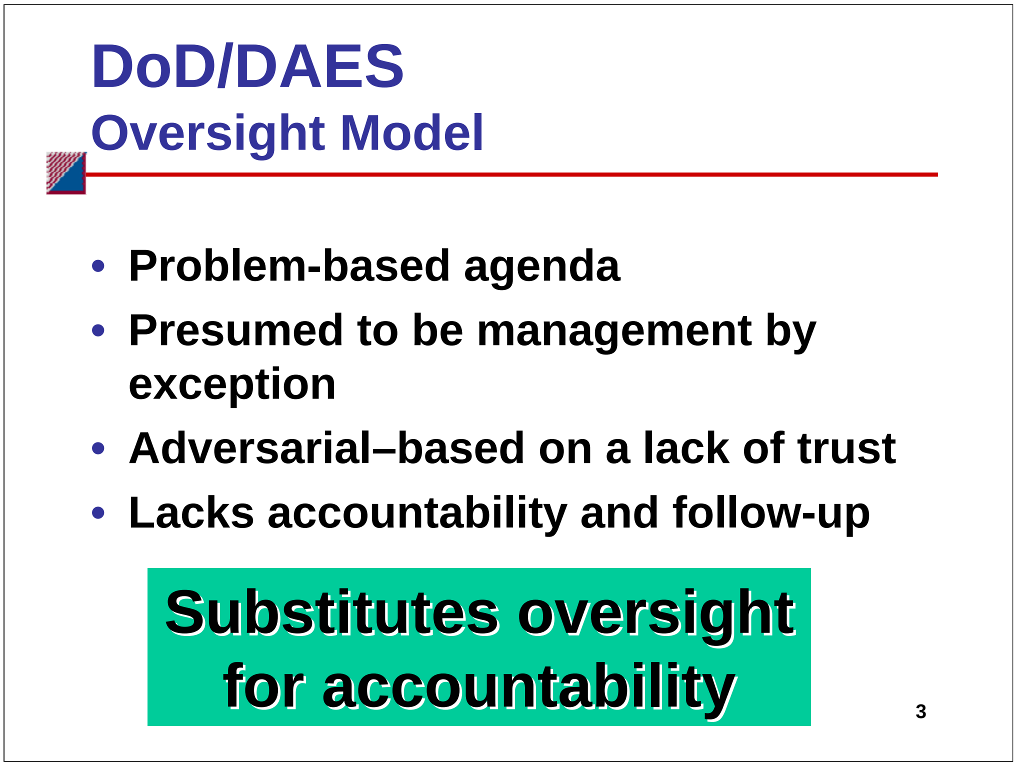
Strategic Management System for Navy Acquisition

The Navy Oversight Model

Where we are and how we got here

2

In the past ten years, the Assistant Secretaries of the Navy for Research, Development and Acquisition (ASN (RDA)), have employed various approaches to program oversight. We will review them in summary to provide a context for our proposed “Strategic Management System for Navy Acquisition.”



The ASN (RDA) oversight processes over the past ten years have occurred within the context of the OSD Defense Acquisition Executive System (DAES) process. The OSD/DAES process is inherently adversarial:

- The OSD functional staff reviews everything on a program by program basis.
- Only programs with perceived problems are put on the agenda; other programs are ignored.
- The process lacks accountability. The OSD staff's objective is to find problems—not to find solutions, and there is limited structure to hold the Component Acquisition Executive (CAE), e.g., ASN (RDA), or the PM accountable, even if that were a stated objective of the process. The APB is presumably the "contract" between the ASN (RDA) and the Undersecretary of Defense for Acquisition, Technology and Logistics (USD (AT&L). As such it should be the central component of the DAES process but it is not. Rarely are DAES issues raised by the AT&L staff couched in any APB context.

DoD/DAES
Oversight Model (Cont’d)

- **Problem-based agenda**
- **Presumed to be management by exception**
- **Adversarial–based on a lack of trust**
- **Lacks accountability and follow-up**

Substitutes oversight for accountability

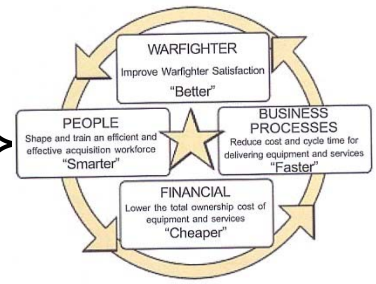
4

- Another problem with the APB is that experience indicates that only KPPs carry any real concern. Cost and schedule can be too easily dismissed if difficulties can be attributed to the vagaries of the PPBES process and Congress. All parties, USD (AT&L) and the ASN (RDA), should guard against the tendency to dismiss real cost and schedule problems.
- Only Earned Value Management (EVM) data evaluation is forward looking.

The process is presumed to be more efficient than reviewing everything whether or not it needs review, and it probably is, given its adversarial nature. This is the OSD version of management by exception. Unfortunately it is simply another example of how DoD substitutes more and more burdensome oversight in an attempt to avoid holding people accountable.

The Navy Oversight Model
Recent Past

- **1995–2001: ASN(RDA) program & portfolio reviews**
  - Biannual
    - Standardized presentation
  - Communicating expectations
    - ASN (RDA) Strategic Plan 1996–2000
    - Implementation = data collection
- **2002–2005: ASN(RDA) program exception reviews**
  - “Blueprint for the Future” 2004
    - No implementation plan



5

From November 1995 through November 2005 the Navy has had three ASN (RDA)s and three different approaches to overseeing and reviewing their program portfolios:

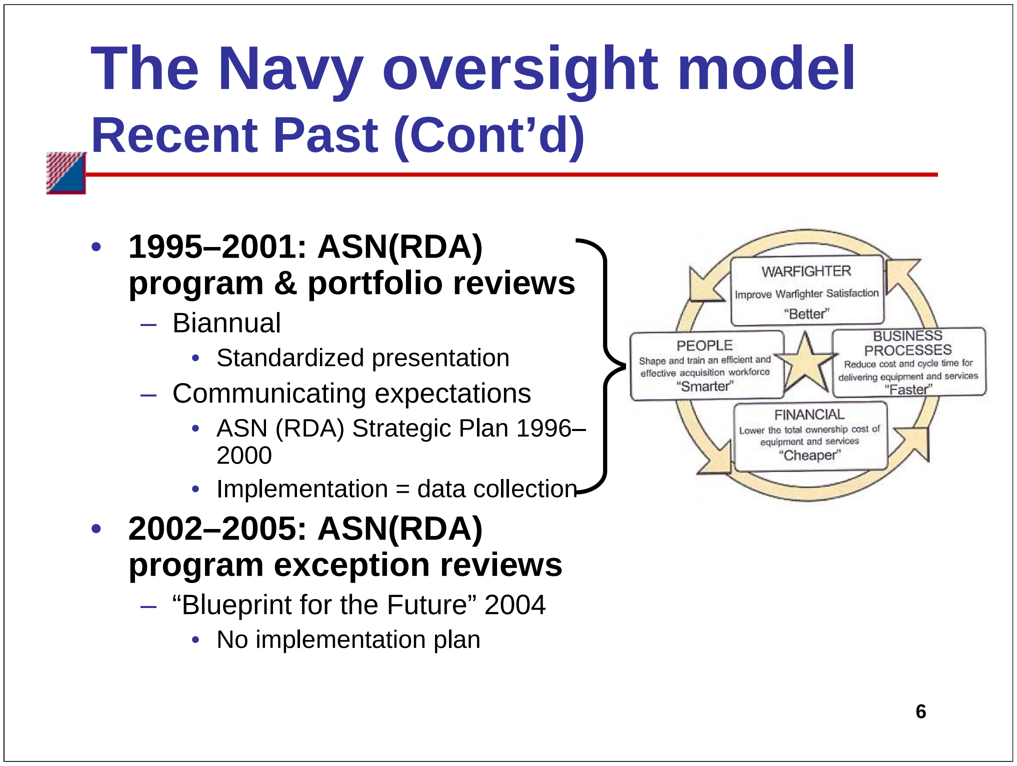
- John W. Douglas Nov 95–Aug 98
- H. Lee Buchanan Nov 98–Dec 00
- John J. Young Jul 01–Nov 05

Secretaries Douglas and Buchanan held biannual Program Executive Officer (PEO) portfolio reviews in a standardized format:

- ACAT I/II—approximately 14 standardized presentation charts for each program
- ACAT III/IV—stop light chart

In addition, Secretary Douglass published a “Strategic Plan in 1996 with a later update by Secretary Buchanan for 1999–2004. The plan represented a very good Balanced Scorecard approach but it was not well implemented. While the plan included specific metrics, those metrics were not assigned to individuals who would be held accountable for their achievement. Consequently, what had begun as a well-structured balanced scorecard approach to driving the ASN (RDA)’s agenda, became a staff driven reporting and data collection effort, largely devoid of “management.”

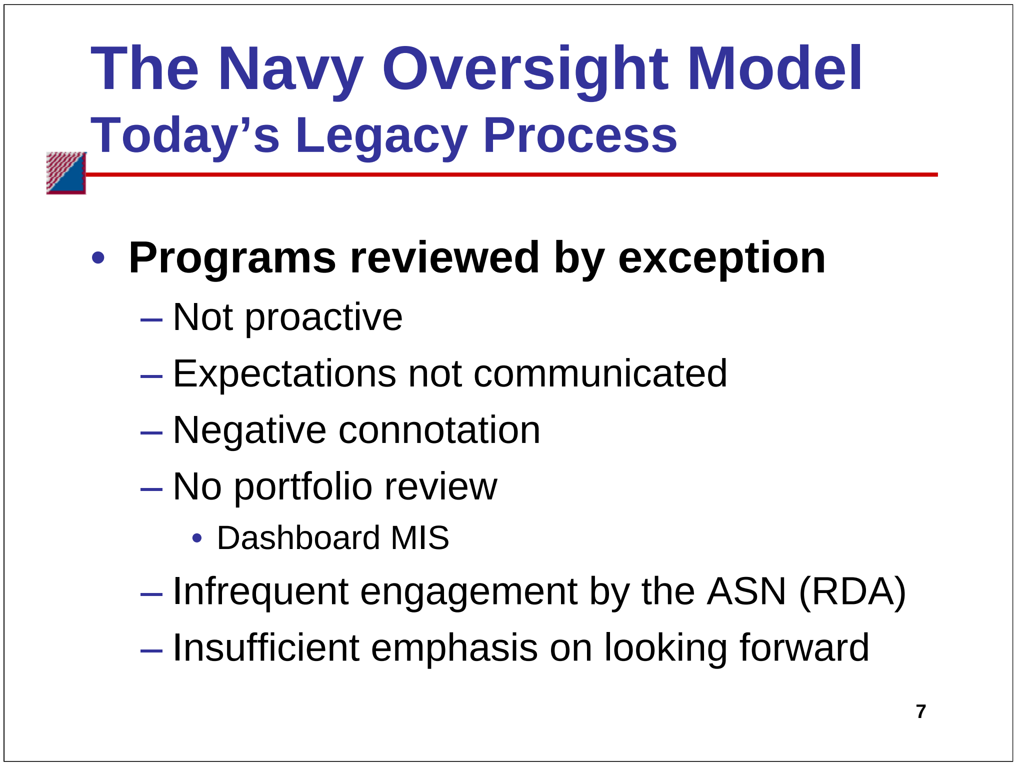
In mid 2001, Secretary Young ended the practice of semi annual PEO portfolio reviews in favor of a management by exception process. While conceptually a reasonable approach, it was not supported by a structure that would communicate status across the portfolio and thus became a crisis management and special interest approach.



In November 2004, Secretary Young published his "Blueprint for the Future." It consisted mostly of broad goals, objectives and guiding principles. For example:

- The Naval Acquisition Team must think like a business and run a tight ship.
- Each DASN, PEO, and PM should seek to reduce the volume of acquisition documents by 50 percent, including only essential, relevant information.
- Deliver LPD-17, SSN-775, and the USS *Eisenhower* to the Fleet.

While the blueprint could have served as a starting point for driving the ASN (RDA)'s agenda, there was no implementation plan that would assign specific supporting goals and objectives to each Deputy Assistant Secretary of the Navy (DASN), PEO or Program Manager (PM).



Until the new ASN (RDA), Dr. Delores M. Etter (November 2005) establishes her own oversight process, the legacy process of Secretary Young remains the default process and should be examined for insight into limitations a new process should address.

Young's model is certainly less adversarial—at least for programs not involved in "by exception' scrutiny—than the DoD model, but its major shortcoming is its lack of a prospective view, and a goal-oriented basis for accountability. Some might claim that goals and objectives are encompassed in the Acquisition Program Baseline (APB), Critical Performance Parameters (KPPs), and contract targets, but, if this is true, the reviews don't focus on progress toward meeting them.

Another major deficiency is a lack of regular involvement by the ASN (RDA) due to the infrequent scheduling of reviews—by exception only. While this minimizes the review preparation burden for the average PM, it comes at a steep price. It is reactive rather than proactive, and limits "face time" to big problems that carry the perception of being "taken to the woodshed." Expectations of the ASN (RDA) are not communicated to PEOs and PMs in a clear and specific manner that addresses specific program circumstances except when there is a major problem. Problem prevention and mitigation is completely missing.

Industry Oversight Model
Packard Redux

- **Clear command channels**
- **<u>Limited reporting requirements</u>**
- **Stability**
- **Small, high-quality staffs**
- **Communications with users**
- **Prototyping and testing**

8

In its simplest terms, Packard recommended that DoD implement an industry model with the six attributes shown above [1]. All of the above industry model attributes are reflected in the current DoD acquisition policy documents but implementation has been poor throughout much of DoD in terms of what Packard intended. For its part, the Navy has probably done the best job of implementation, especially for the first, second and fourth attributes.

It is not our intent to go into the details of what happened to the Packard model but we will pursue an updated industry model for this study. Packard's "Limited Reporting" attribute is central to the theme of this paper and Packard is quoted below for emphasis:

> "A commercial program manager reports only to his CEO. Typically, he does so on a "management-by-exception" basis, focusing on deviations from plan (emphasis added)."

Industry Oversight Model

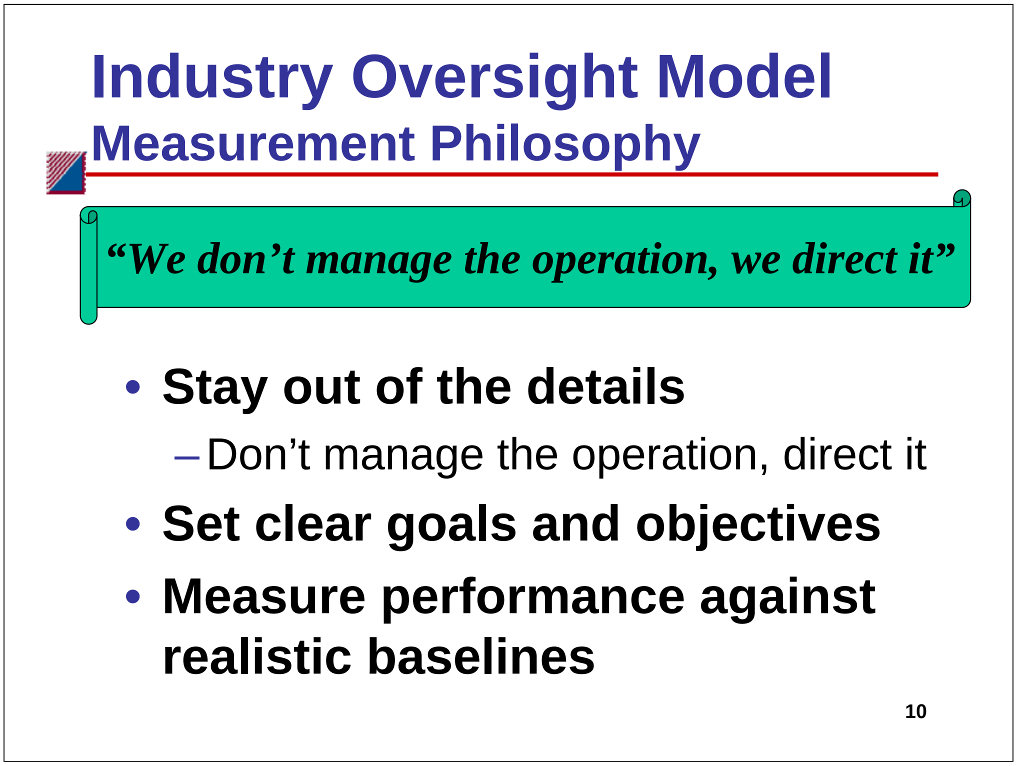
Characteristics

- Review entire portfolio regularly
- Summary output metrics
- Prospective
- Follow-up is inherent in the process
- Collegial and trusting
- Accountability

9

In November 2001 CNA completed a study for ASN (RDA), which included one–on–one interviews with top managers of the top five Navy contractors. Persons interviewed were CEOs and CFOs, and selected counterpart executives at the business unit level [2]. Based on those interviews, we developed the following industry program and portfolio model. When these executives were asked how they would oversee the Navy portfolio if they were selected to be the ASN (RDA) they generally described this model. The industry oversight model has the following characteristics:

- *Everything* reviewed regularly
  - Usually quarterly with *monthly* reporting of financials
- Based on summary output metrics, goals, and objectives.
  - Level of detail based on deviations from the plan/goals/objectives/baseline or other identified problems
- Forward looking in the sense that it regularly assesses progress toward mutually agreed-upon goals and objectives—usually related to an annual operating plan
  - Makes use of trend information that is inherently forward looking.
- .Follow-up is inherent in the process:
  - Recurring reviews
  - Focus on progress toward goals and objectives.
- Collegial and trusting
- Accountability
  - Performance-based compensation



It is clear; both in the companies' approach to their own metrics as well as their recommendations for ASN (RDA), that they believe three principles should be followed:

- Stay out of the details
- Set clear goals and objectives
- Measure "results" and "outputs" as opposed to activities or status.

Above the level of the program manager, metrics should be measuring aggregate performance with details limited only to high-level items for the most important programs. Program details should be limited to those programs that are experiencing problems worthy of attention by the higher-level executives. For example, it is common to use a "stoplight" chart to portray the condition of each program in the portfolio being reviewed, but the details are not addressed except on an exception basis. The following are representative quotes for each of the three principles:

Stay out of the details.

> "We don't manage the operation, we direct it."—CFO
>
> "In 1997, we (CEO & CFO) were tracking reams of data and we were doing poorly. We have been shifting from a product culture to a business culture over the last 3 – 4 years. As a result, for the year 2000 we were the second best performing company in the Dow."—CFO

Set clear goals and objectives

> "What are you really trying to measure?"—CEO
>
> "We measure results, not activity."—CFO
>
> "Need to measure OUTPUTS, not inputs."—VP

Set clear goals and objectives (cont’d)

“Doesn’t matter how hard you try, its the result that counts.”—VP

“Not sure the government really looks at the reporting it receives or sends.”—VP

Measure performance against realistic baselines

Industry tends to measure managers against agreed-to goals and expectations. Government tends to measure program execution in terms of absolutes that ignore the going-in assumptions, understandings, and realities. This is exacerbated and even caused by the frequent turnover of government management, from PMs, to PEOs, to the Acquisition Executive and Milestone Decision Authority. Some representative quotes:

“Why can’t each program be measured in the context of beginning risk assumptions?”—CEO

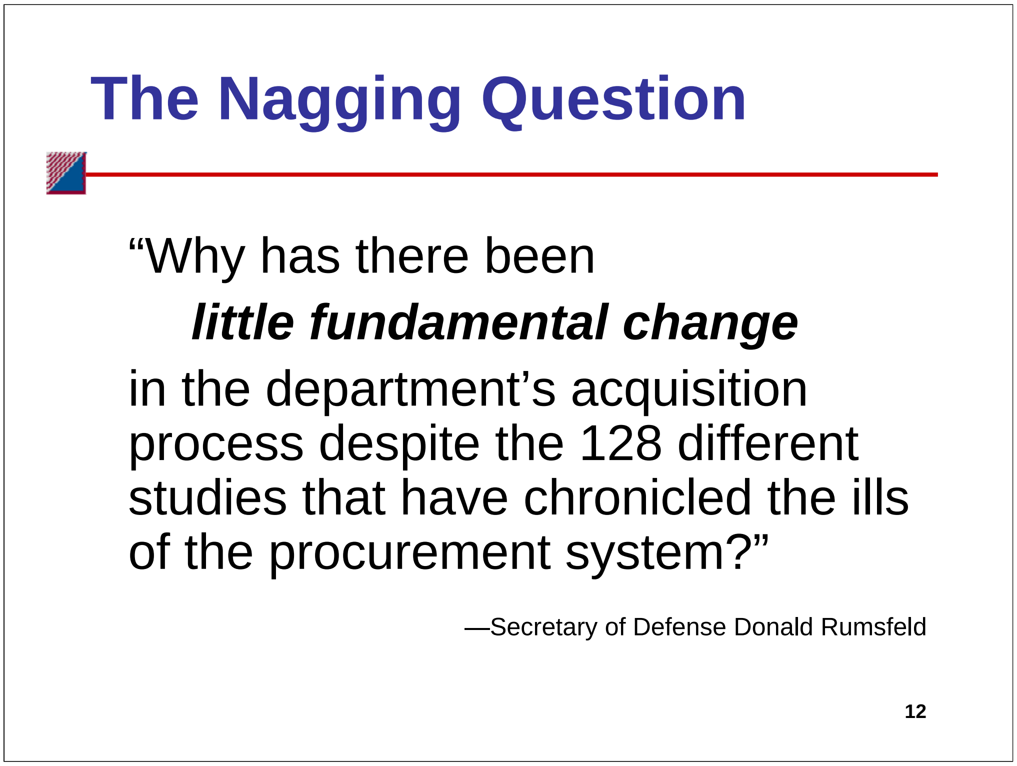
“Measure contract execution against outcomes expected at contract award.”—VP

“For example, if a 5-percent overrun is anticipated at the time of contract award, measure against that CPI goal. Don’t measure the CPI as an absolute.”

“Measures of program performance should be agreed to on a program-by-program basis so that both parties have the same expectations and arrive at the same conclusions based on the same data.”—VP

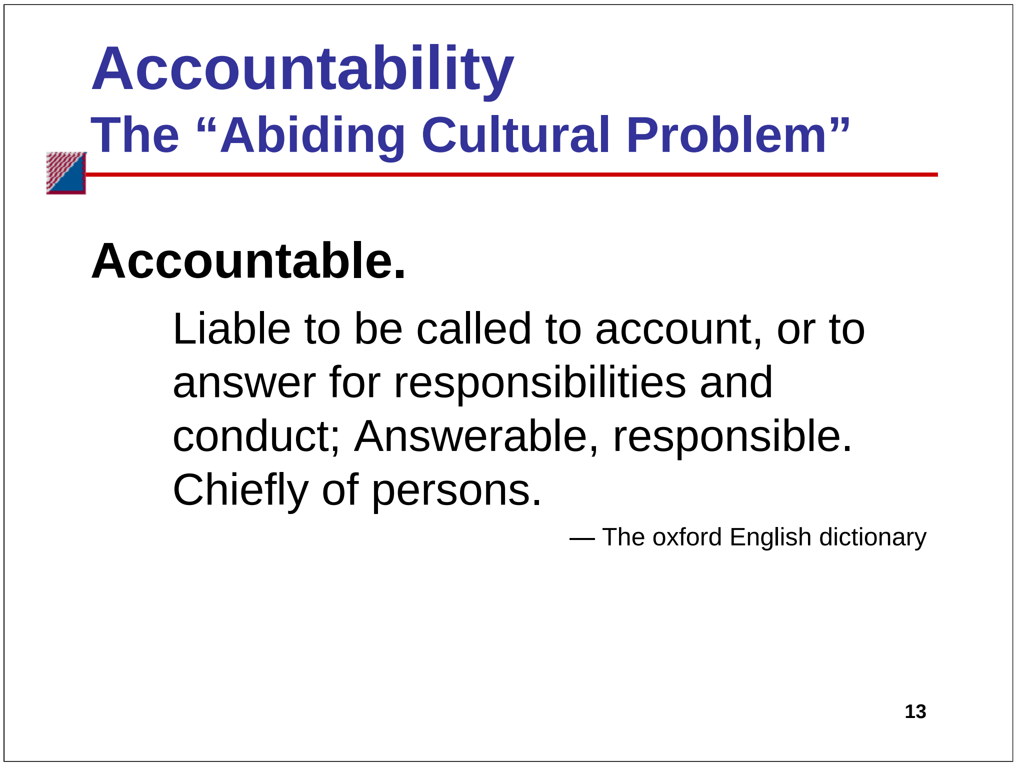
“We need a common core set of metrics across the Navy (across DoD/ would be nice) plus program peculiar metrics as needed.”—VP

“Create a ‘Balanced Scorecard’ that clearly distinguishes between the contractor’s role and that of the government**.”—**CEO



In a May 30, 2001 interview [3] with Defense News, Secretary of Defense Donald Rumsfeld asked the above rhetorical question. Four years later, Secretary of the Navy and acting Deputy Secretary of Defense Gordon England made what was essentially the same point when he said: “Prices are going up, we need to improve performance, acquisition times are getting longer—so it’s not working. We have to understand why and correct the system” [4].

In the opinion of the authors, the lack of accountability and consequence is the single biggest inhibitor to significant improvement in acquisition outcomes. Despite the recurring studies and recommendations on how to improve the “system,” little seems to change beyond the margins.

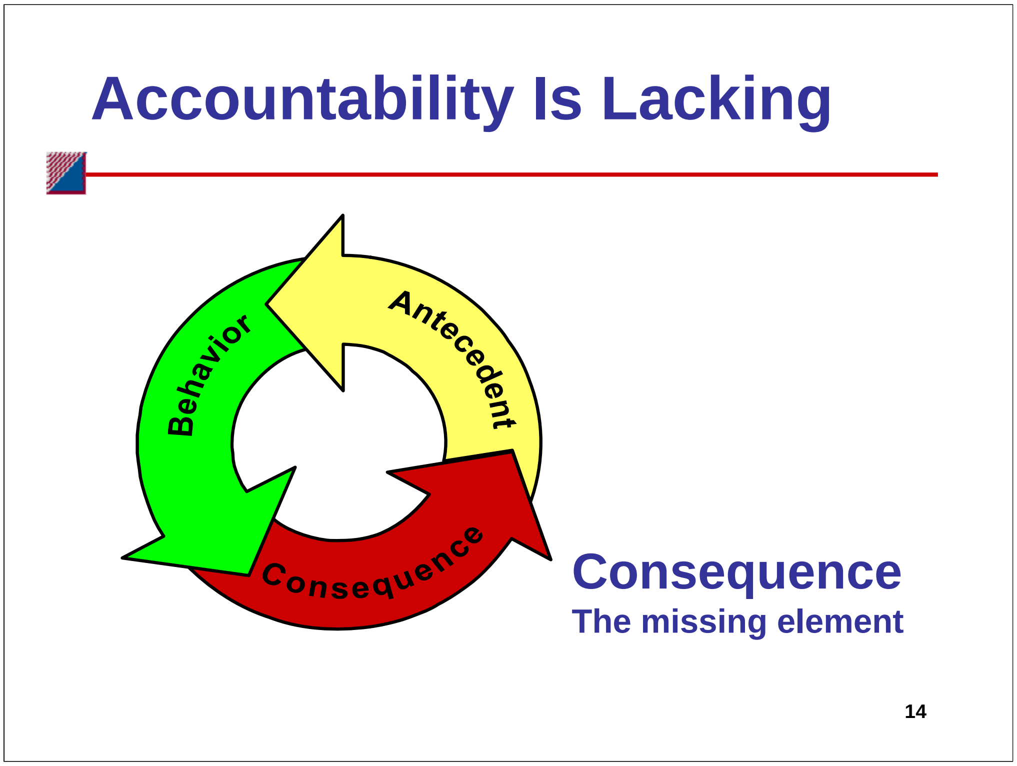


Accountable and accountability are terms that are frequently mentioned whenever the need for reform or improvement in acquisition performance is discussed—we have mentioned the terms several times in this report. Too often we use the terms as if everyone understands, but do they? Do we?

Paul Beach, in his report on how the Navy’s A–12 reached the point where it was cancelled, itself a rare instance of accountability, described the issue perfectly:

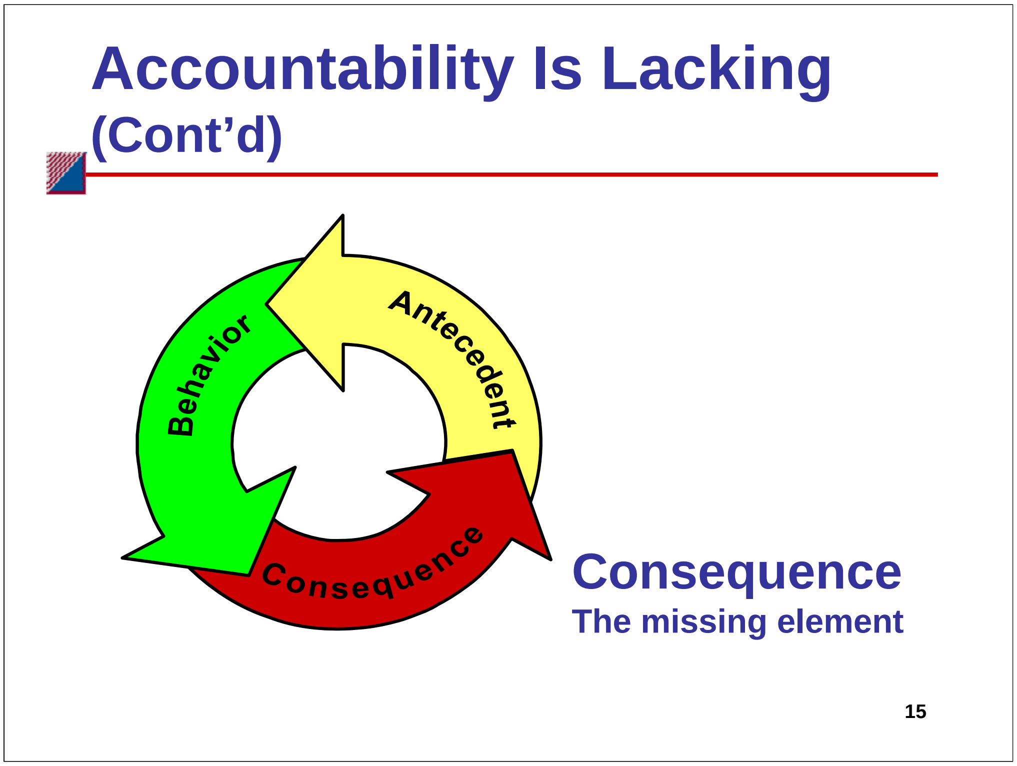
“The fundamental problem . . . is to create appropriate incentives to enable senior leaders to rely upon responsible, *accountable* line managers for realistic perspectives on the cost, schedule and technical status of their programs. Only by doing so can we increase efficiency and *accountability* while reducing the burdens imposed by undue regulation and stifling supervision.”

“Unless means can be found to solve this *abiding cultural problem*, the failures evidenced in this report can be anticipated to occur again in the same or similar form” [5].



When the issue of accountability is raised, a common response is “You’re right, we need to fire more people.” But that’s not it. Firing is not the only way to instill or execute accountability. We are talking about behavior, and there are two ways to alter behavior: Do something before the behavior occurs or do something after it occurs. In the behavioral scientists’ terminology, this is called antecedent and consequence, respectively.

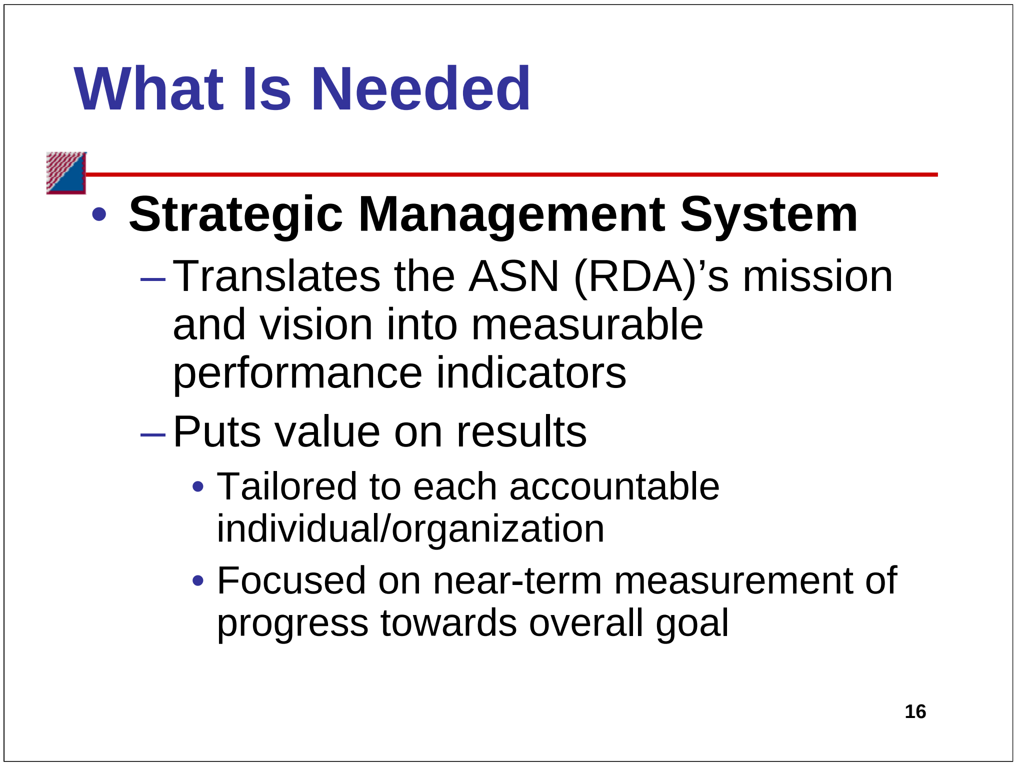
Antecedents come before behavior, but they do not necessarily cause behavior; they set the stage for behavior. Consequences follow behavior and thereby affect the likelihood that the behavior will occur again. Antecedents consist of such things as policies, goals, practices, and other forms of enterprise expectations, and while they are necessary, they will not, by themselves, sustain a desired level of performance or behavior. Only the nature and likelihood of consequences can do that, and too often consequence is missing from the acquisition environment. We substitute more and more policy antecedents to obtain the behavior we want, but we fail to realize that *the lack of consequences becomes an antecedent*. When the workforce perceives there are limited, if any, consequences for following or not following policies and practices, that lack of consequence becomes an antecedent. Note that consequences can be good or bad, as in positive and negative reinforcement.



In the authors' experience, when Navy PMs are asked, "What does the "RDA" expect from you?" the answer is invariably "To bring my program in on time, within cost, and meeting performance goals." We all know the DAU answer, so the question is rephrased and personalized to, "What does RDA Smith expect from you, Captain Joe Jones, for your program, in its unique state of affairs which is different from the state of any other program?" The answer to that question is usually a blank stare, *and that is the issue.* People cannot be held to account if they do not know specifically what is expected.

To establish a basis for accountability, the ASN (RDA) must communicate three things to all levels and elements of the Navy acquisition community:

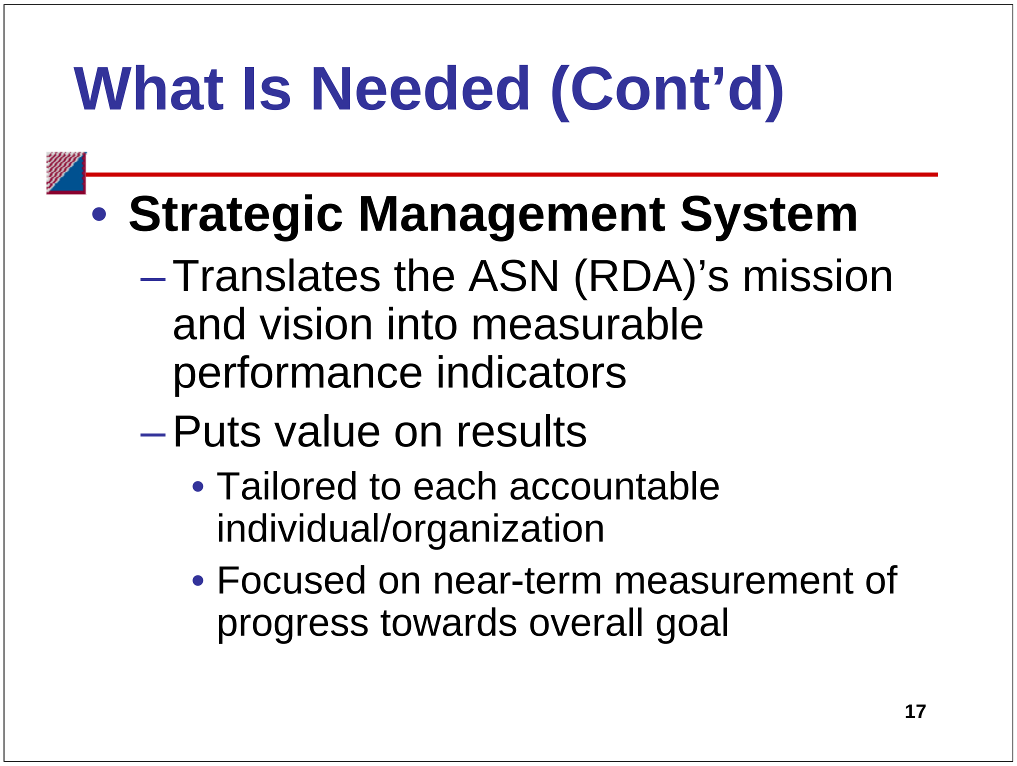
- That they will be called to account;
- What it is that they will be held accountable for; and
- That there will be consequences for not meeting expectations.



ASN (RDA) needs a new Strategic Management System for Acquisition Oversight. The new system should be based on the three DoD Business Management Modernization Program (BMMP) realignment principles [6]:

- DoD business enterprise clarity
- Tiered accountability
- Program management discipline.

Such a strategic management system should be based on an industry model that is centered on an *annual operating plan*.



The Strategic Management System we will propose in this report directly addresses three of the top 8 key issues identified by the Defense Acquisition Performance Assessment (DAPA), and plays a role in virtually all of the remaining 39 [7].

1. Oversight
5. Need for Leadership
8. Process Discipline.

The system will also addresses at least three of seven Business Management Modernization Program (BMMP) principles [8]:

- DoD Business Enterprise Clarity
- Tiered Accountability
- Program Management Discipline.

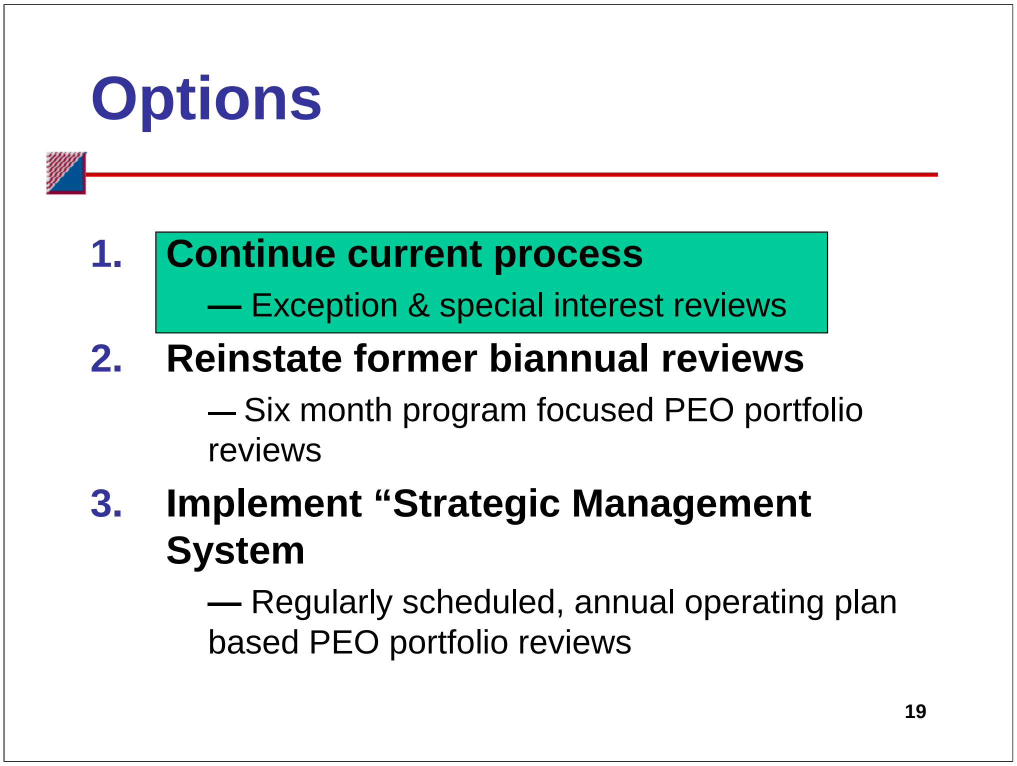
The Need for Alignment

"We measure everything, but by measuring everything and aligning nothing at senior levels, we really measure nothing."

Ken Krieg address to DAU faculty and students as reported in Defense AT&L: January-February 2004

18

Merely inventing new metrics and collecting more data increases the burden on program offices, satisfies the staffs' need for something to do, but changes little if anything. Metrics measure what has happened but we want to know where we are, how did we get here, and are we on a path to where we want to be. Metrics without management is data collection, period. For metrics to be useful, management must set the direction and measure, reward, and correct progress to plan.



There are at least three options.

OPTION 1:

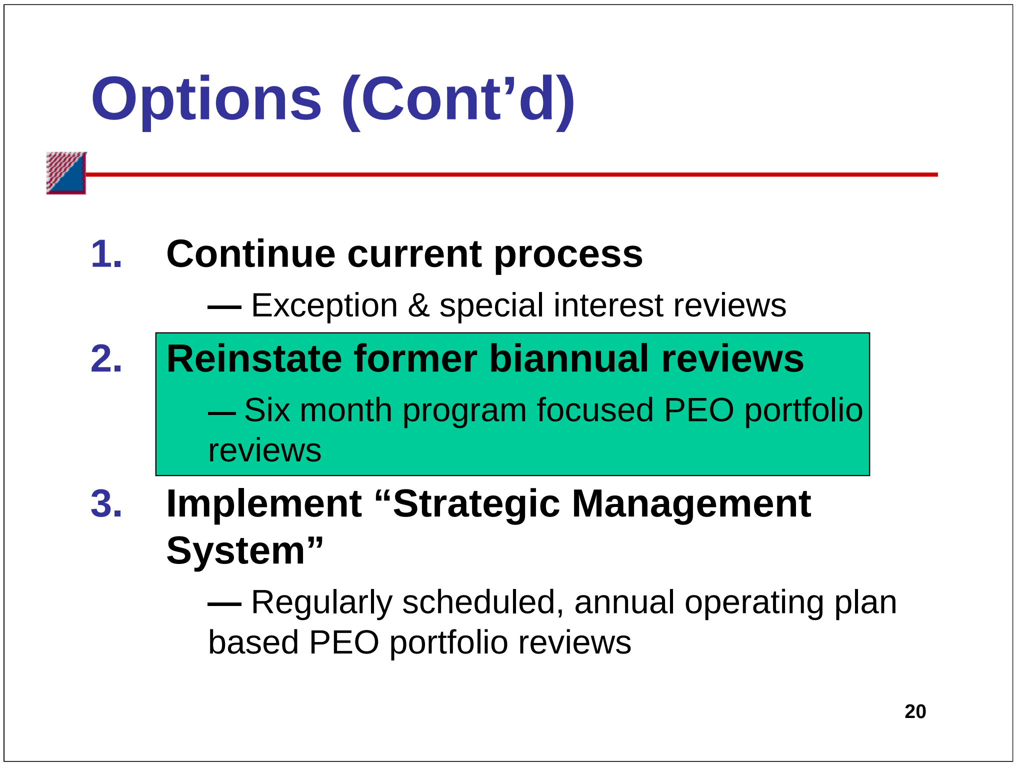
Continue exception and special interest reviews, using “DASHBOARD” for recurring RDA staff analysis of program status.

PROs

- This is a known process which requires no change in PM and PMO preparation effort.
- There is no additional investment as long as the current OSD process continues.

CONs

- This approach is ad hoc & reactive, and provides minimal opportunity to assist programs in moving forward; most effort is focused on finding and fixing broken programs.
- Minimal connection between ASN (RDA) objectives and the Navy acquisition community (PM/PEO/DASN).
- Program focus either minimizes ASN (RDA)’s “Special Focus Areas” or requires a new and separate process.
- Leaves ACAT I portfolio review to OSD, with no one reviewing lower ACAT portfolio. This is a core ASN (RDA) responsibility and abrogating it creates the perception that the Navy is not “on top” of its program.
- OSD is likely to change its current DAES process, which could result in major changes to DASHBOARD, negating one of the few benefits to this status quo option.



OPTION 2:

PEO program focused portfolio reviews every six months, with “DASHBOARD” for recurring ASN (RDA) staff analysis of program status.

PROs

- As with option one, this process is largely known since the review format and data requirements are already included in DASHBOARD.
- Because of DASHBOARD, there is a minimal increase in current PMO preparation effort.
- There is minimal additional investment required as long as the current OSD process continues.
- The face-to-face nature of the reviews provides some opportunity to be proactive.
- Is easily tailored to reflect ASN (RDA)’s “Special Focus Areas.”

CONs

- Provides minimal connection between ASN (RDA) objectives and Navy acquisition community (PM/PEO/DASN)—Limited accountability.
- OSD is likely to change its current process, which could result in major changes to DASHBOARD, negating the minimal investment benefit of this option.

Options (Cont'd)

1. **Continue current process**
   — Exception & special interest reviews
2. **Reinstate former biannual reviews**
   — Six month program focused PEO portfolio reviews
3. **Implement "Strategic Management System"**
   — Regularly scheduled, annual operating plan based PEO portfolio reviews

21

OPTION 3

Implement a "Strategic Management System" using a balanced scorecard approach with goals and objectives based on an annual operating plan that supports Acquisition Program Baselines (APB) and special interests of the ASN (RDA).

PROs

- Provides an opportunity to align ASN (RDA) objectives with the responsibilities and authorities of Deputy Assistant Secretaries of the Navy (DASN), PEOs and PMs. This will provide a basis for individual accountability throughout the Navy acquisition community.
- Clarifies horizontal and vertical organizational relationships and responsibilities.
- Permits integration of program execution and "Special Focus Areas."
- Proactive forward looking.
- May be a better fit with the emerging OSD process.

CONs

- There would likely be startup issues as this is both a new process and a new concept—near term focus rather only a long term APB focus.
- New investment likely to revamp DASHBOARD. However a changed OSD process will have a similar impact.
- Establishing goals and objectives for all direct reports requires ASN(RDA) personal involvement. This is inherently difficult and potentially time consuming under the best of circumstances. With 37 direct reports, the process may become unusually problematic.

Recommendation

- **Implement a new ASN(RDA) oversight model reflecting the essential characteristics of the industry model**
  - Measurement based on *annual operating plan* consistent with the long term Acquisition Program Baseline (APB)
  - Quarterly portfolio reviews
    - Minimal Monthly supplement

22

We recommend the ASN (RDA) implement a new ASN(RDA) oversight model reflecting the essential characteristics of the industry model:

> *Progress measurement based on an annual operating plan that is structured to support achievement of the long term Acquisition Program Baseline (APB).*

As discussed under chart nine, progress against the plan is reviewed quarterly, and supplemented monthly with financial data. The remainder of this report will describe the structure, details, and process of this new *Strategic Management System*.

Annual Operating Plan

Schedule of events and responsibilities detailing the actions to be taken in order to accomplish the goals and objectives laid out in the strategic plan.

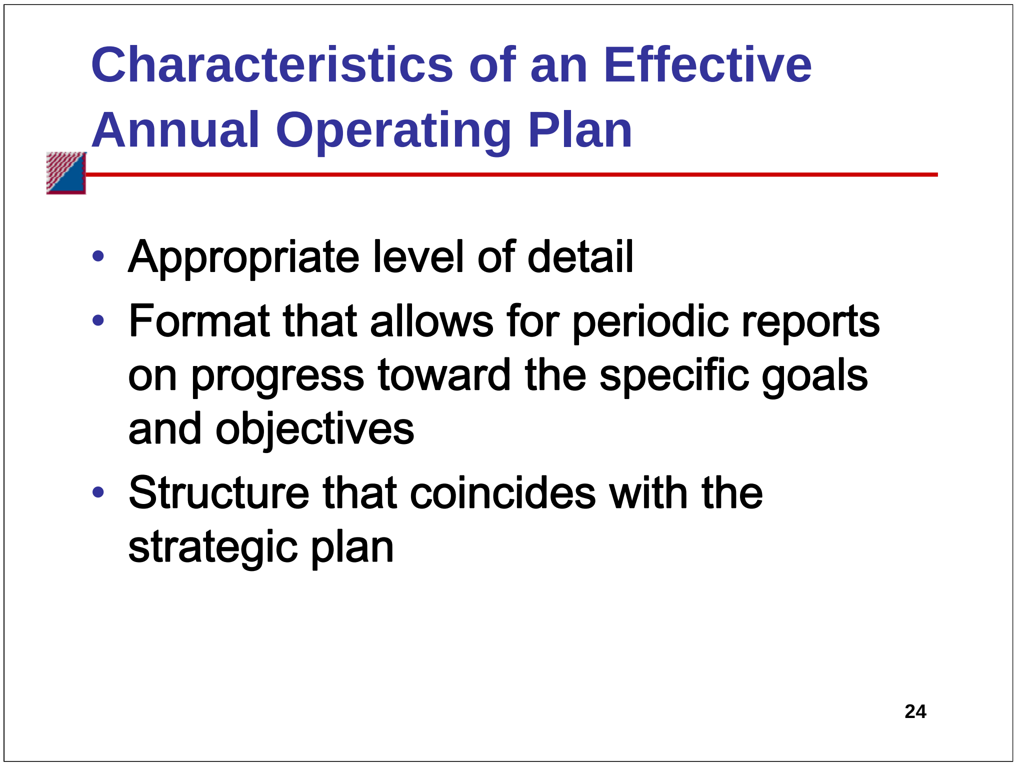
—Alliance for nonprofit management

23

First it is useful to understand what is an “annual operating plan” since it will be the core around which the *Strategic Management System* is built.

As stated above, an annual operating plan (AOP) is a schedule of events and responsibilities, detailing the actions to be taken in order to accomplish the goals and objectives laid out in the strategic plan. The AOP ensures that everyone knows what needs to get done, coordinates efforts when getting it done, and keeps track of whether and how it got done.

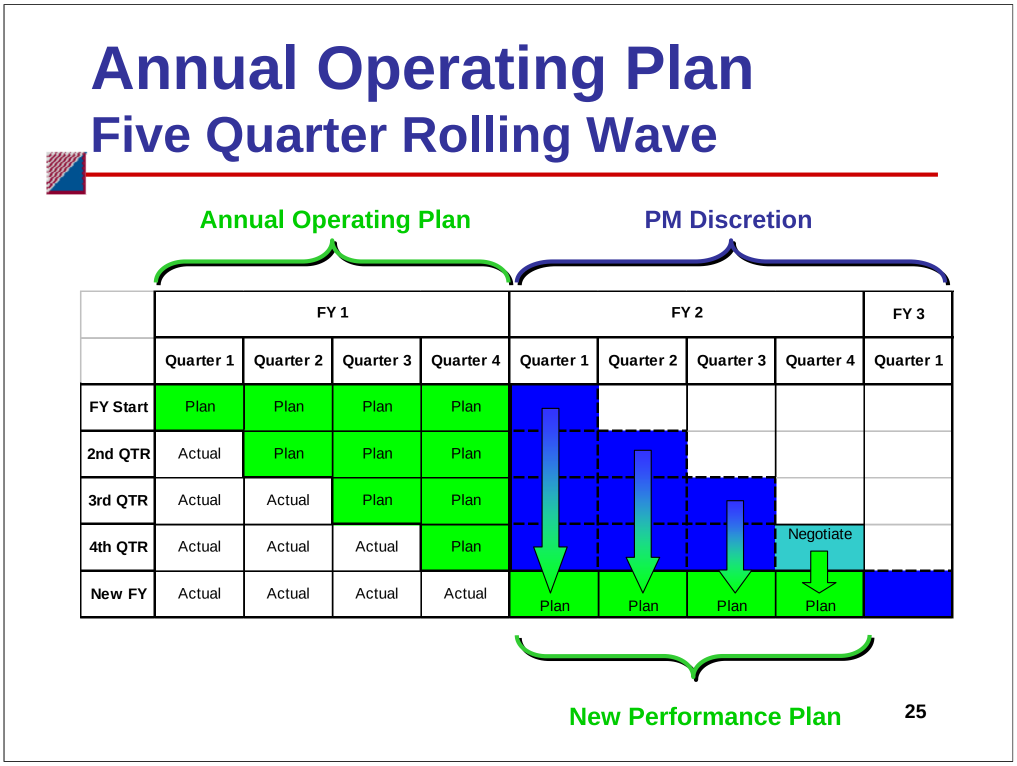
In the Navy acquisition environment, the Acquisition Program Baseline (APB) serves as the strategic plan. The trouble with the APB, and with strategic plans in general, is that they commonly extend so far into the future that it is often impractical to hold anyone accountable for its achievement. For example, how can the PEO or PM be held accountable for achieving Initial Operating Capability (IOC) when it is 10 to 15 years in the future? Obviously they cannot. But, an AOP might establish and measure progress on those events in the next 12 months that are on or near the critical path to IOC. Progress over the upcoming year can easily be measured, and appropriate persons can be held accountable for progress. Failure to achieve the annual goals would be an early indicator of a potential slip in IOC. The AOP also mitigates one of the persistent accountability problems throughout DoD: “You can’t hold me accountable for things I don’t control, and the PPBE and appropriation processes are constantly changing my program.” If the AOP is based on the fiscal year, most funding changes and impacts are known by the August/September time frame, which provides sufficient time to set the next year’s goals in a manner that is almost entirely under the control of the PEO, and PM.



As described by the Alliance for Nonprofit Management, an effective AOP is characterized by:

- Limited level of detail—ensure progress but don't micro–manage
- Guidance that provides direction, but does not overwhelm, confuse, or unnecessarily constrain creativity
- Format that allows for periodic reports on progress toward the specific goals and objectives
- Structure that coincides with the strategic plan.

The goal statements for the strategic plan (APB in our case) and the operating plan are the same, but the objective statements for the strategic plan and the operating plan are likely to be different. The AOP will be a relatively near term level of detail built to measure progress towards the longer term APB goals. Implementing an AOP requires that goals and objectives be set and regularly monitored. Most companies do this with something that resembles a *Balanced Scorecard* (BSC).



The chart above is a notional AOP represented by the the quarterly green blocks. As we progress through the year, the “Plan” is replaced by “Actuals” represented by the white blocks. By the end of the year, the AOP is all actuals and it is time to establish the next year’s AOP. The graphic above implies this is instantaneous but in fact, construction and negotiation of the new AOP would have to be done during the last two months of the completing year (August and September in our Fiscal Year model). To ease this process, we recommend a five quarter rolling wave that builds on what should be an ongoing planning process in any program office.

As shown by the blue blocks, the AOP includes a *tentative* fifth quarter plan which *could* become the corresponding quarter of the next AOP. These beyond the AOP quarters are not measurable for accountability purposes, but should reflect future plans including the impact of missed objectives during execution of the current AOP. The beyond the AOP plans are totally at the PM’s discretion. As the chart shows, the new quarters are added every quarter until the last quarter of the AOP is reached. At that time, if the planning has kept up with execution, negotiating the new AOP should be relatively easy. There should be no need for a “fire drill” to develop the new AOP. As the blue to green down arrows show, the plan has been continually updating during the year.

For a program that lacks a robust planning and scheduling process, this could be burdensome, but it is our opinion that any program that is not already doing *at least* this much planning, will be prone to surprises, which is the antithesis of the *Strategic Management System* we are recommending.

Essential Characteristics
Based on the Industry Model

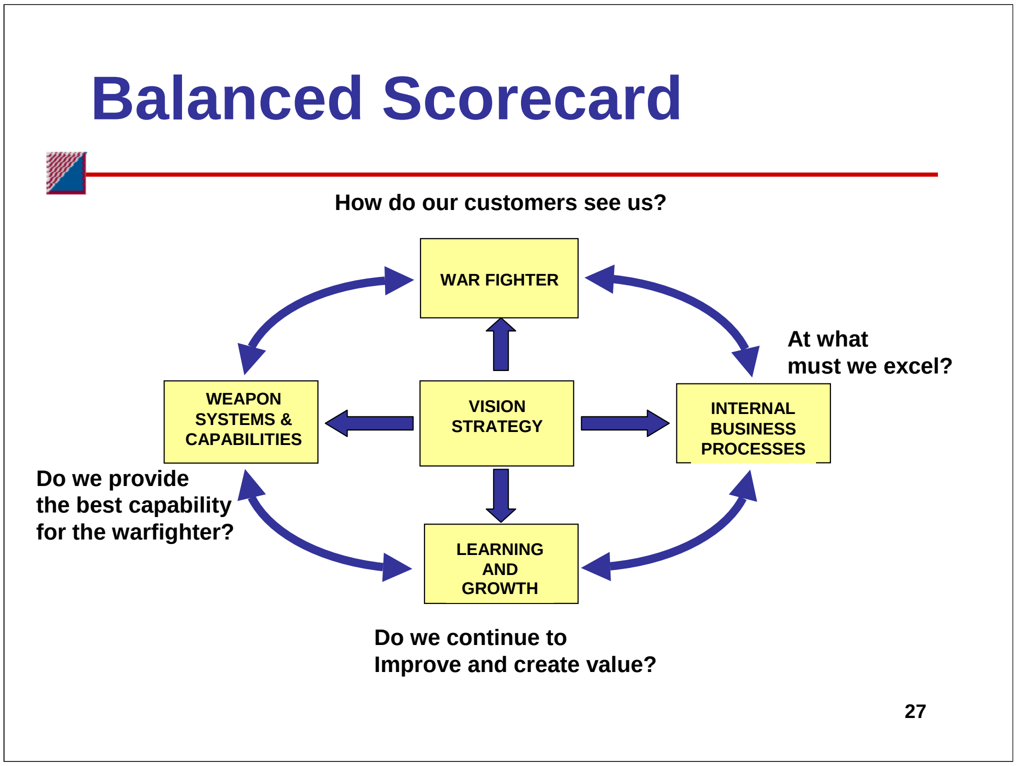
- **Establish a balanced scorecard for each PEO and DASN**
- **Flow down from PEOs to PMs to workforce**

26

While the AOP will be the core around which the Strategic Management System is built, we need a means to assign and monitor progress against our goals. As previously mentioned, most companies do this with something that resembles a *Balanced Scorecard* (BSC). We recommend ASN (RDA) implement the AOP through the establishment of a balanced scorecard (BSC).

- *Balanced scorecards* should be established for each PEO and for each Deputy Assistant Secretary (DASN) or other ASN (RDA) direct report. This ensures all parts of the organization are committed to the ASN (RDA)'s vision, goals and objectives in a mutually supporting way.
- PEO scorecards should be flowed down to Program Managers (PMs)
- PEOs, DASNs and PMs should flow scorecard metrics into the performance plans of individual employees. The BSC concept is *totally consistent with* performance requirements of the National Security Personnel System (NSPS).

Note: All references to "DASN" in this report should be construed as including any other OASN (RDA) direct report unless otherwise noted. Also, the term "PEO" is inclusive of Direct Reporting PMs (DRPM) in this report. Finally, the reference to NSPS is used generically. While the NSPS performance requirements are likely to be stronger than in the current system, the principles in this report are applicable to any performance appraisal system.



The balanced scorecard is a conceptual framework that will enable the ASN(RDA) to translate strategic objectives into a set of performance indicators distributed among several (usually four) perspectives [9]. Because the Navy is not a profit-making enterprise, we suggest that the traditional "financial" perspective be replaced with a "systems" perspective. The typical company exists to enhance shareholder value, or more simply, to make money for the owners, and that is its overarching perspective. The Navy's acquisition organization exists to develop, acquire, and support "*systems*" for Navy, Marine Corps, Joint, and Allied forces. That is the Navy acquisition organization's overarching perspective, and we believe this variation will provide more flexibility to use financial measures under both the "systems" perspective as well as the "customer" perspective as appropriate.

With regard to the "customer" perspective, the chart identifies the acquisition organization's customer as the "warfighter." This is clearly the case, but the ASN(RDA) must also satisfy many other "stakeholders" in the process of acquiring systems. These include, but are not necessarily limited to, the Navy and Marine Corps headquarters (e.g., the Secretary, Secretariat, CNO, CMC, OPNAV, and HQMC), the Office of the Secretary of Defense, and the Congress. For the remainder of this report, we will refer to these many customers as "warfighter and stakeholders," but it should be clearly understood that the warfighter is the primary customer.

Balanced Scorecard

Four Perspectives

- **Systems & Capabilities**
  - Key areas
    - Metrics
    - Initiatives
- **Warfighter & Stakeholders**
  - Key areas
    - Metrics
    - Initiatives
- **Internal Business Processes**
  - Key areas
    - Metrics
    - Initiatives
- **Learning & Growth**
  - Key areas
    - Metrics
    - Initiatives

28

This chart portrays the basic structure for RDA balanced scorecards. The scorecards are usually structured to reflect the four strategic perspectives (this number is not absolute; more than four are sometimes used).

Each of the four perspectives is divided into “key areas” such as cost, schedule, risk, etc. Each key area is then subdivided into related performance measures or metrics. These “metrics” may include measures of the progress of management “initiatives” related to the subject key area. An example would be the ASN(RDA) “Special focus areas.”

Balanced Scorecard

Notional PEO Scorecard

Common to all

Common w/some negotiation

Weighting negotiated

Measures and values negotiated

Number coded for Special Focus Areas

PEO PERFORMANCE MATRIX

Perspective	Key Area	Measure *	Special Focus Area	Weight (%)	4	3 Goal	2 Prior Year	1	YTD	YE
SYSTEMS & CAPABILITIES (40%)	Contract Perf	CPI		6	>0.95	>0.93	0.92	<.91	0.91	0.96
	Prog Cost	% Annual growth		7	<0.4	<0.6	0.8	>1	0	0.6
		# APB breaches		2	1	2	3	>3	0	0
	Affordability	% Progs w/goals		4	>80	>70	60	<60	65	100
		% Progs exceeding goals		6	>10	>5	5	<5	5	21
	Schedule	# APB breaches		3	1	2	3	>3	0	0
	Performance	# APB breaches		6	<3	<4	4	>4 or KPP	2/KPP	3/1 KPP
	Risk	Risk Index		6	>.9	>.8	0.8	<.75	0.81	0.91
PROCESSES (25%)	Contracts	Current CPAR to total applicable contracts (>$5M)		5	>90	>75	50	<50	65	100
		Current IPAR to total applicable contracts		2	>75	>50	25	<25	30	80
		Ave PALT days past 12 mos		5	<180	<200	270	>270	230	165
	EVM	% applicable contracts		5	>85	>60	50	<50	65	100
		%Replan IBRs to replans		2	>75	>50	25	<25	60	80
		% Current EVMS MOAs		2	>80	>70	10	<10	75	85
	Requirements	% ORDs w/non- CAIV changes		1	<10	<15	18	>20	4	14
		Ave days pending ORD app		1	<180	<210	285	>285	200	200
		Ave days pending APB app		1	<100	<120	150	>150	160	115
	PPBS	% programs changed (excludes execution & taxes)		1	<25	<40	50	>50	0	20
STAKEHOLDERS (20%)	Fleet	Miss Cap Rate		5	>90	90	85	<85	90	92
		Fleet visit frequency		4	>1.5	1	0.8	<.8	0.3	2.1
	OPNAV/SECNAV	Establish Infrastructure plans/targets (%programs)		4	>75	>50	25	<25	35	80
		Actual Infrastructure savings/target (%)		4	>90	>80	70	<70	90	95
		Establish Human Sys Int plans/targets (% programs)		3	>75	>50	25	<25	35	80
LEARNING & GROWTH (15%)	Quality workforce	% DAWIA qualified		4	>80	>70	60	<60	65	85
		% meeting cont learning objective		4	>75	>50	20	<20	40	80
	Motivated workforce	% current performance plans & scheduled reviews		4	>95	>85	75	<75	75	100
		Award-reward rate (%)		3	>15	>10	10	<10	12	20

Trend	QTR 1	QTR 2	QTR 3	QTR 4	SUMMARY	
YTD					#REF!	#REF!
YE						

* Portfolio weighted average unless otherwise specified

This chart portrays a notional PEO balanced scorecard as it might appear at the end of the second quarter, based on the perspectives and key areas in the preceding pages.

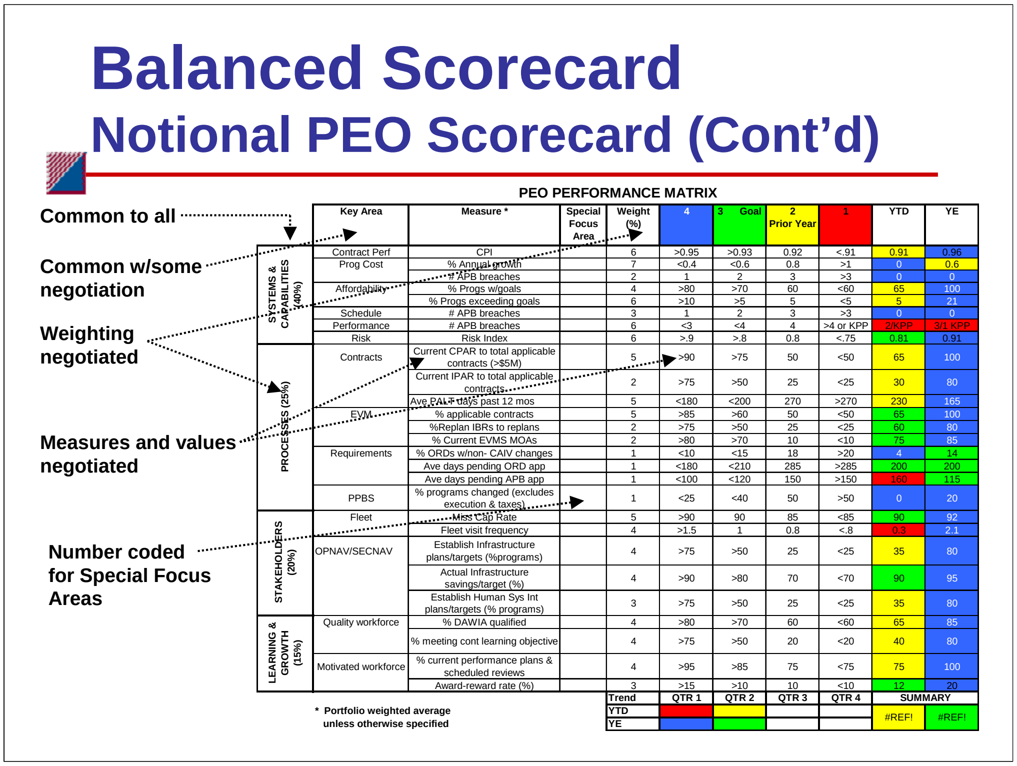
The first column lists the four “perspectives” and is common to all scorecards for the RDA team. Each perspective is weighted to reflect the importance attached by the next higher level, in this case the ASN(RDA). These weightings can vary from one PEO to another depending on the ASN(RDA)’s assessment of what areas he or she wishes to emphasize with a particular PEO.

The second, third and fifth columns list the “key areas,” “metrics,” and metric “weighting.”

Key areas would tend to be the same for all PEOs, or all DASNs or other groupings of like organizations within the Naval Research, Development and Acquisition Team, but they may be subject to negotiation between the PEO and the ASN(RDA).

The metrics and their values would be drawn from the AOP with score values determined through a process of proposal and negotiation between the parties. Although the AOP metrics may be quite similar for all PEOs, this is where the ASN(RDA) can address specific concerns with a given PEO. This is expressed both in the specific metrics values assigned and in the weighting assigned.

The goals and objectives are listed in the sixth trough ninth columns are the baselines for the current year’s goals. Under the presumption of continuous improvement, the prior year’s value, if appropriate, is shown as “yellow” for



PEO PERFORMANCE MATRIX

	Key Area	Measure *	Special Focus Area	Weight (%)	4	3 Goal	2 Prior Year	1	YTD	YE
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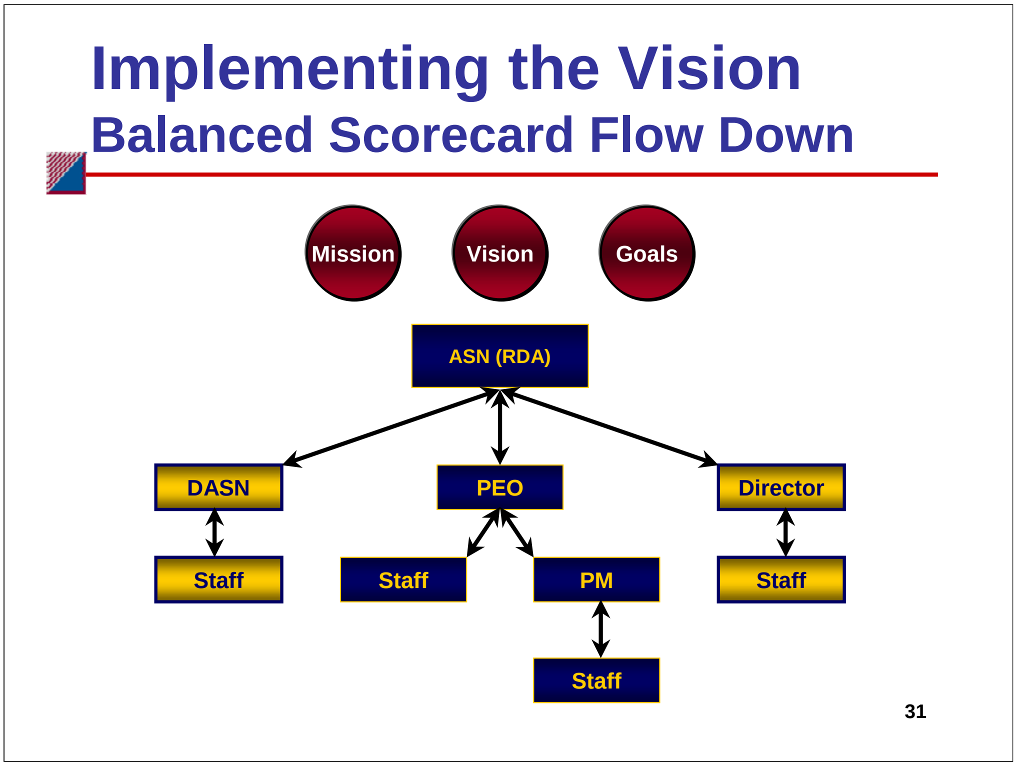
				Trend	QTR 1	QTR 2	QTR 3	QTR 4	SUMMARY	
				YTD					#REF!	#REF!
				YE						

* Portfolio weighted average unless otherwise specified

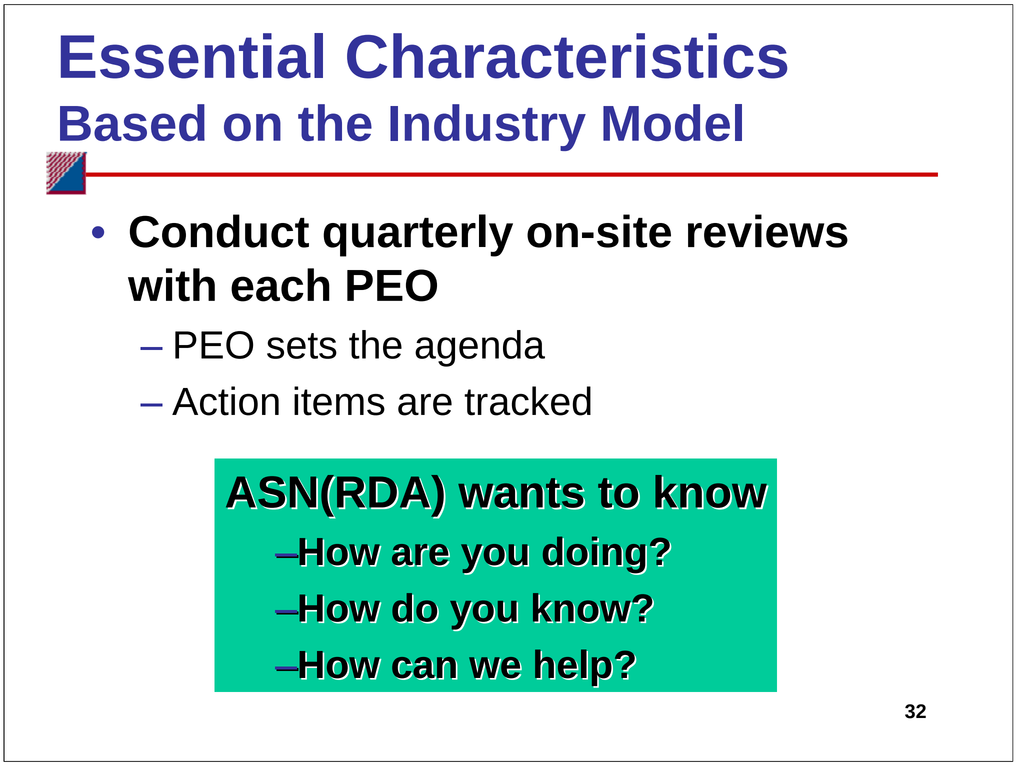
scoring purposes. The "red" scored ninth Column reflects an outcome less favorable than in the preceding year. The "green" or "goal" column is the goal for the current year, and the "blue" or "stretch" column reflects exceptional performance relative to the goal.

In the last two columns, the PEO reports the "actual" value to date for each metric, and his or her current estimate of the metric's expected value at the end of the performance year. An overall "score" is reflected at the bottom of these two columns and copied in the appropriate quarterly record of progress at the bottom of the chart.

The fourth column, "Special Focus Areas," is blank in the above chart but could be given a number (1–8) to represent any of the ASN (RDA) Special Focus Areas that might apply to the listed third column metric. This coding permits sorting of the status of the Special Focus Areas without requiring a potentially confusing reconfiguration of the basic scorecard structure. Note that any special sorting requirement can be accommodated by adding appropriate columns.



The chart above reflects the flow (see chart 26) down necessary to get the entire Naval Research, Development and Acquisition Team focused on its mission of developing, acquiring, and supporting technologically superior and affordable systems for Navy, Marine Corps, Joint, and Allied Forces. Ultimately, the scorecard metrics should be reflected in the individual fitness reports of officers and the performance plans of civilian staff. Note that this flow down is especially appropriate for those staff members covered by the Acquisition Workforce Demonstration and NSPS.



We recommend quarterly ASN (RDA) reviews. These reviews should be focused on *summary-level metrics* for each PEO's *program portfolio*. Detailed discussion of individual programs should be limited to high interest and "problem" programs.

In order to facilitate proper alignment of responsibility, authority and accountability, it is our opinion that it is critically important that these reviews be held on–site with agendas largely left to the PEOs.

The ASN (RDA) should come to listen to the answers to three questions:

1. How are you doing?
2. How do you know?
2. How can I help?

In the beginning at least, the second question "How do you Know" will be the most important.

With three SYSCOMS, the PEOs from one SYSCOM could be reviewed each month to meet the quarterly schedule. If the focus is on *aggregate PEO portfolio metrics* and program "stoplight" summaries, three PEOs could be reviewed in a one-day session. In a similar fashion, the major Navy contractors we previously studied cover entire first-tier business units in single day on–site reviews. This approach might require that the six NAVSEA PEOs be allotted two days, but they all are local which should ease the burden. Programs that require the in-depth attention of the ASN (RDA) can be reviewed whenever and wherever required, but quarterly reviews are an efficient means of affording the ASN (RDA) the opportunity to identify troubled programs, and the need for a detailed discussion, before they reach the crisis stage.

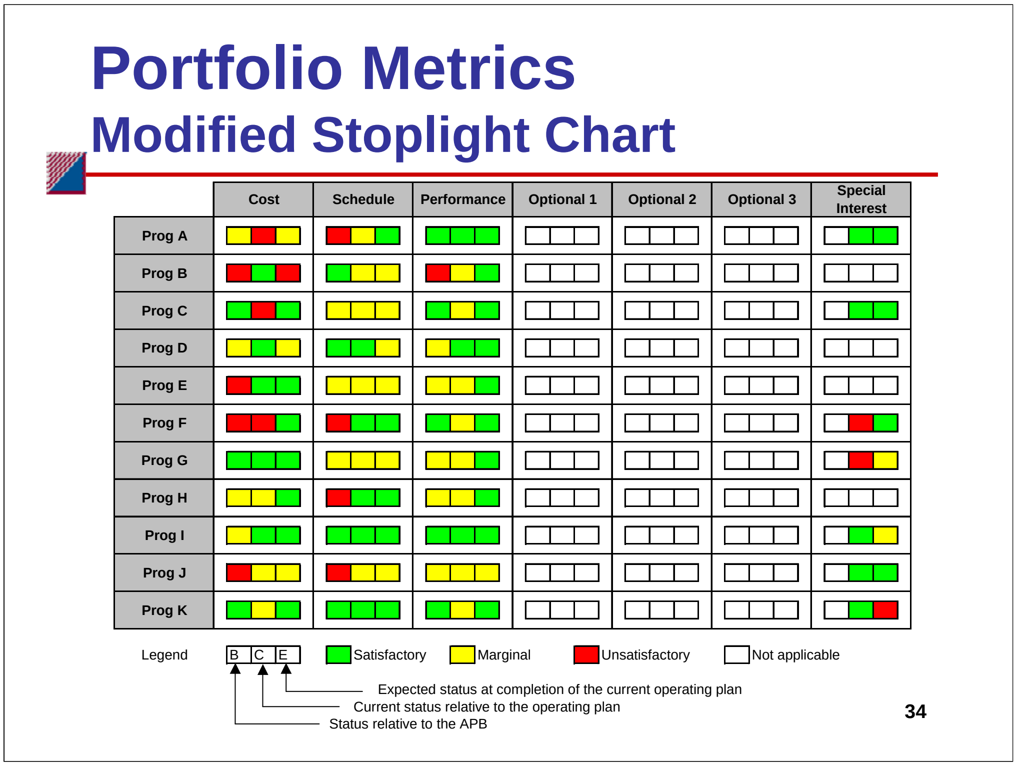
Portfolio Metrics

- **Quarterly review format**
  - Focus on status of the overall portfolio
  - Individual programs on an exception basis
    - Depth appropriate to the issue at hand.
- **Aggregate displays of common program metrics**
  - From annual operating plan and BSC

33

The format of quarterly reviews should reflect an overall focus on the status of the portfolio of programs, with individual programs reviewed on an exception basis. Individual programs should be reviewed at the depth appropriate to the issue at hand.

In general, portfolio displays should reflect aggregate displays of the most important metrics that would be common to most programs. These metrics would typically be found in the annual operating plan and BSC of a typical program. The next few charts are examples of some of the more interesting portfolio display approaches we have seen in our recent studies.



Perhaps the most common way to portray status of a portfolio of programs is with a red–yellow–green stoplight chart. The chart above is an adaptation of the stop chart light chart used by one company to begin their quarterly on–site business unit reviews. The company in question had columns for:

- Sales
- Cost
- Schedule
- Technical
- Quality
- Supplier performance
- Customer satisfaction

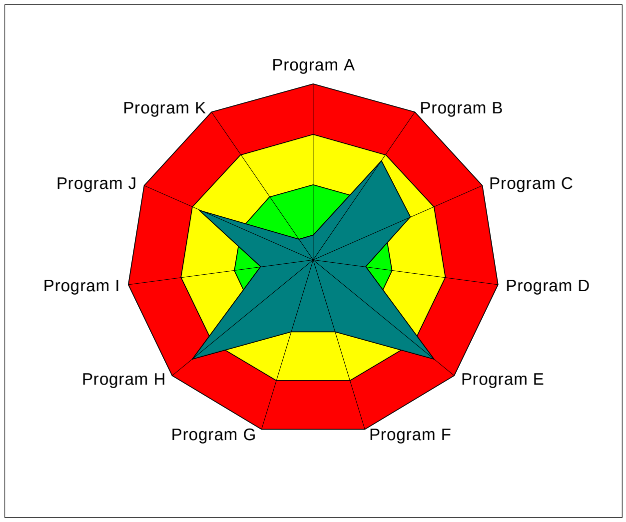
Within each cell of the company chart (e.g., "Program A/Cost" in the chart above) the three blocks represented how the program was doing (a) against the contract, (b) against the current plan, and (c) the outlook at completion.

We have adapted the above chart so that the blocks within each cell represent:

- Status relative to the APB
- Current status relative to the operating plan
- Expected status at completion of the current operating plan

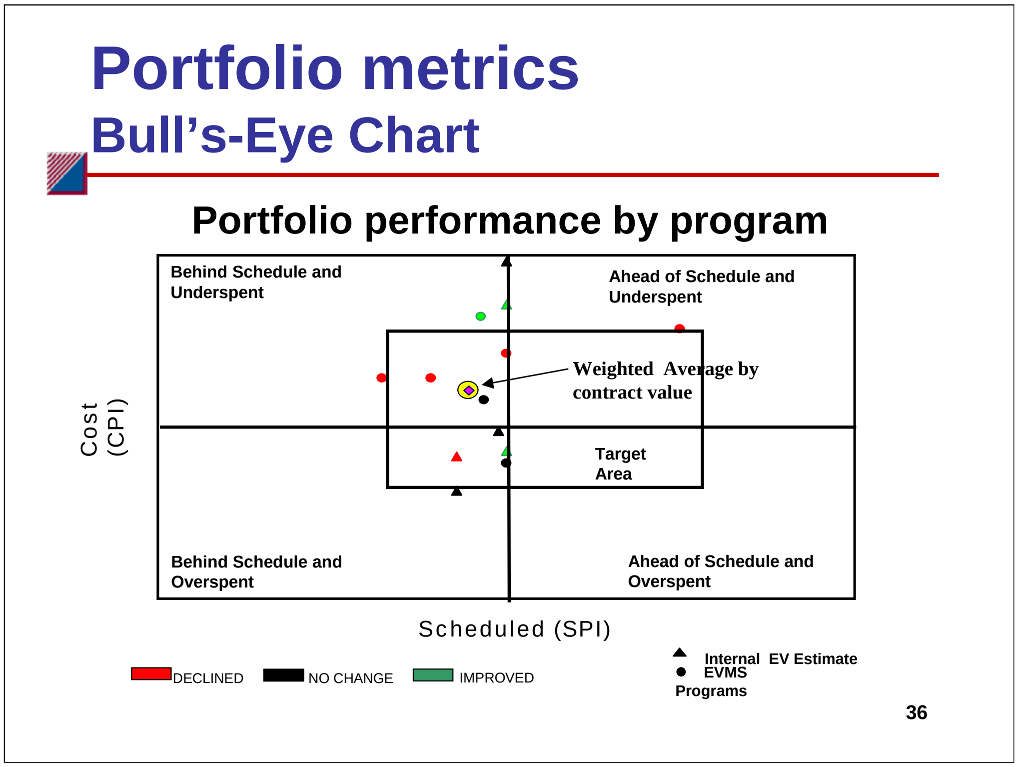
These status definitions, and any other aspects of the chart are adaptable. Some, as in the "Special Interest" column above, may not be applicable. Most people who have seen this chart prefer it to the simple stop light chart. Other options include ordering the chart by ACAT or by agenda and non–agenda programs.

Portfolio Metrics
Radar Chart



35

The “radar” or “spider web” chart above can be used to display any metric that is common across a portfolio or other grouping of programs. As the gray area expands and contracts towards “red” or “green,” the overall status of the portfolio for the particular measure can be readily seen. One significant benefit of this display is that the outlier or “problem” programs are immediately obvious.



This actual industry chart is typical of the Earned Value Management (EVM), Cost Performance and Schedule Performance Index (CPI/SPI) “bull’s-eye” charts used by most companies. This chart shows all contacts within a business unit.

This general format was used early in the history of EVM but it has seen a renaissance in recent years, especially since former ASN (RDA) Lee Buchannan used a color coded version of the chart as a cornerstone of his metrics set. Unfortunately, the Navy charts were typically used to show the changing status of a single contract over time. There are numerous problems with single contract bull’s eye charts and we do not recommend them [10, 11]. However, as shown above, the bull’s eye is a very good way to display the EVM *cost* status of a portfolio. Note in the above example that the overall portfolio status is reflected by the “Weighted Average” value in the upper left quadrant towards the cross hair. As in the radar chart, this display makes it easy to observe the aggregate portfolio status while clearly identifying the “problem” programs.

Monthly Reporting

- **Monthly financials universal in industry model**
  - EVM metrics a consensus choice of company executives
- **Monthly EVM recommended for ASN (RDA)**
  - Minimum reporting burden
  - Maximum insight
  - Objective indicator of status
- **Oversight**
  - Role of the ASN (RDA) staff
  - Need for “independent” staff analyses
  - EVM data supports minimum staff involvement in programs

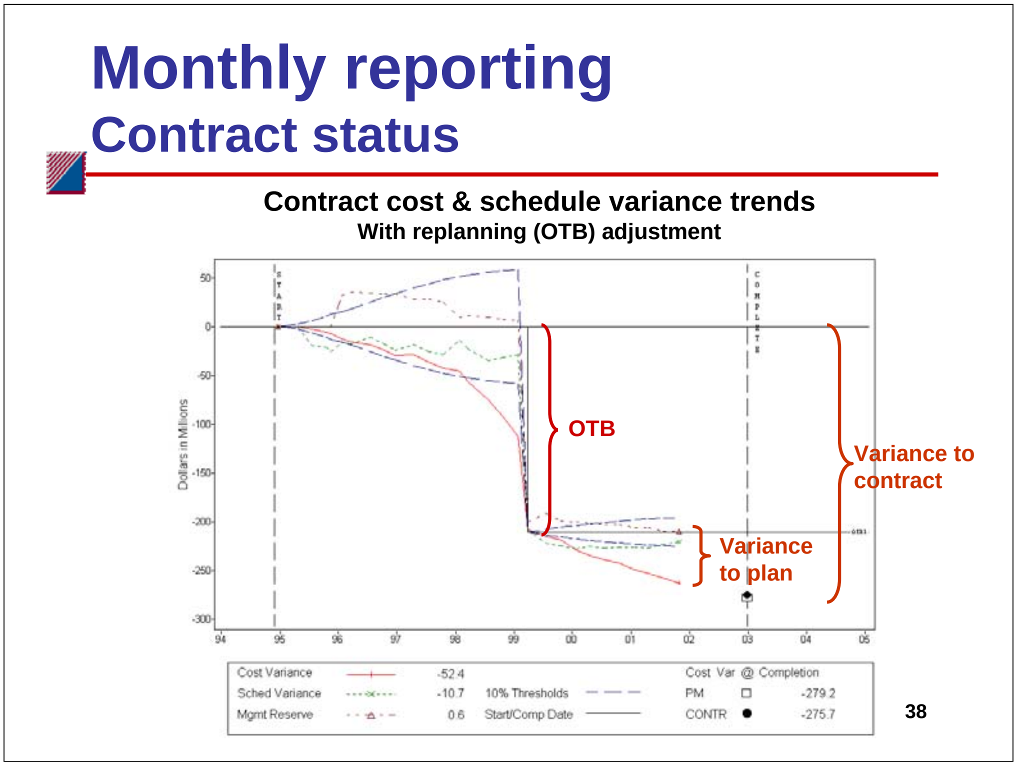
37

As previously mentioned in the discussion of chart nine, and as recommended in chart 22, monthly reporting of financials is virtually universal in the industry model. Also, EVM metrics were a consensus choice of all company executives interviewed [12].

To minimize reporting burden while maximizing insight, we recommend that EVM data be used as the only recurring reporting requirement between quarterly reviews. If reported as data only, no variance explanations, there is virtually no reporting burden on the program office, which simply forwards the contractor provided raw data. Explanations, if necessary, can wait for the quarterly review.

The reason we make this recommendation is that EVM, properly implemented, is an objective indicator of contract status, and the major contracts are a good surrogate for the program, especially prior to rate production. In those situations where EVM data is considered “bad,” it is still very useful to a *knowledgeable* user. Also, “bad” EVM data is in and of it self an indicator of cost or schedule problems, or both. In an AOP and BSC environment, an EVM problem is a “process” issue and should be immediately assigned for corrective action.

At this point a key oversight issue arises. What is the role of the ASN (RDA) staff, and what is the need for “independent” staff analyses? It is our opinion that recurring and independent staff analysis undercuts alignment of responsibility, authority and accountability because the staff is put in the position of second guessing the PMs. As a minimum, such activity contributes to a lack of trust. EVM data provides for a minimum of staff involvement in the programs.



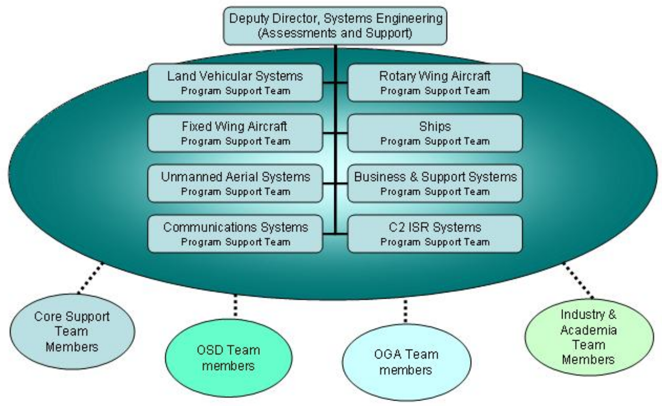
We recommend the above variation of the common cost and schedule variance chart for any program that has had one or more formal reprogrammings, often called an Over-Target-Baseline (OTB). Note that the example above is based on an actual program.

The advantage of this chart is that it portrays how well the contract is performing to the current plan while retaining the context of the actual, negotiated contract. This chart overcomes a major limitation of the bull's eye chart, which plots the CPI and SPI but presents a misleading picture when rebaselining resets the index values to unity [13].

There is wide-spread reluctance to implement OTBs and their informal cousin, the "replan" or "rebaseline." The concern seems to be that "rebaselining" will cost more money and frequently the needed funds have not been programmed. The concern is illogical because the funding required for a program is strictly dependent on the estimate at completion (EAC) regardless of whether the program is rebaselined. Management should be concerned to the extent that this reluctance is related to an unwillingness to report realistic EACs. Programs will cost what they will, and any delay in reestablishing control over cost only exacerbates the problem. Because the purpose of an OTB is to reassert control, we recommend that program reviews include the requirement to discuss the possible need for an OTB for any program with a cumulative-to-date or projected overrun of 10 percent or more.

Problem Follow–up

Independent Expert Program Review (IEPR)



Tri-Service Assessment Initiative

39

Continue and reinvigorate, the Independent Expert Program Review (IEPR) as a follow-up tool for problem programs identified through the quarterly review process.

The IEPR is based on the OSD Tri-Service Assessment Initiative and has the following objectives:

- Provide Assistance to Program Managers;
- Identify Program Strengths, Risks, and Problems;
- Utilize Total Navy and DoD Capability;
- Provide PMs, PEOs and the ASN (RDA) with Actionable Recommendations.

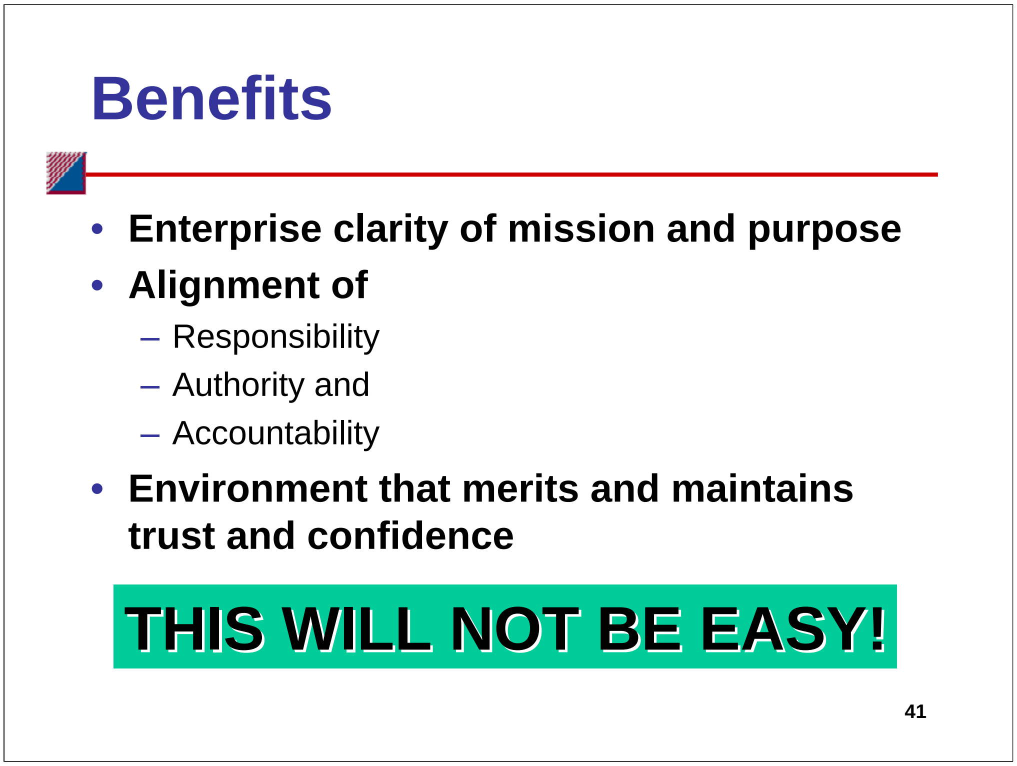
Assessments are conducted by assessment teams consisting primarily of PM and PEO members and Navy experts and practitioners. The process is consistently applied using an existing framework of materials, issue-driven, and tailored for each assessment.

Action Plan

- Develop plan & process to implement "draft" operating plans and scorecards for all PEOs/DASNs by 30 June 2006
- Finalize based on first rolling quarter update
- Fully integrated with FITREP/NSPS FY07

40

We recommend putting the initial drafts in place by the end of June 2006 so that the last quarter of FY 2006 can be used for a practice update of the rolling quarter and establishment of all five quarters of the FY 2007 annual operating plans and balanced scorecards.



The industry executives we interviewed in adapting the industry oversight model for the Navy, stressed the need to “stay out of the details” and made numerous comments such as:

- “We don’t manage the operation; we direct it.”
- “It doesn’t matter how hard you try; it’s the result that counts.”

The benefits of the proposed Strategic Management System will be improved clarity of mission, purpose and expectations, and alignment of

- Responsibility
- Authority and
- Accountability.

This alignment should help foster an environment that merits and maintains trust and confidence.

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