

ACQUISITION REFORM TODAY

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GPRA Spurs Efforts To Measure Results

It was Thomas Edison who cut to the chase.

“Results!” he said. “I have gotten a lot of results. I know several thousand things that won’t work.”

That’s the risk in measuring results — you may find out what you’re doing isn’t working. Still, you have to know. Besides, everybody’s doing it.

The Environmental Protection Agency says it has reduced the time businesses spend complying with rules by 16 million hours in two years. U.S. Customs says all its phone calls are answered in 60 seconds or less. The Social Security Administration says 97% of its callers get through in five minutes or less.

As federal agencies rush to measure

their results to meet the Sept. 30 deadline for submitting strategic plans to Congress under the Government Performance & Results Act (GPRA), it’s numbers, numbers, numbers.



Some agencies have been measuring results for a relatively long time or were designated as one of 70 GPRA pilot projects.

An example is the National Highway Traffic Safety Administration (NHTSA), whose methods were already heavily statistical because of the nature of its mission. It also collects its own data.

But many departments and agencies, including DoD, are finding it very tough

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to express results in terms that will satisfy GPRA. To help the process along, Congress and the Office of Management and Budget are holding consultations with agencies to discuss their progress as the deadline approaches.

Here are some pointers from veterans of performance metrics:

- Look at the consultations as an opportunity to sharpen the focus of fuzzy parts of your plan. (Congressional aides say, for example, that many agencies are confusing tools with goals.) Try not to assume that Congress sees GPRA mostly as a means to cut back programs.
- Select the appropriate metrics; otherwise, change goes unnoticed or the outcomes of change remain undetected.
- Update accounting practices and management style along with measurement techniques. Accounting practices like activity-based costing are needed to implement functional changes. Hierarchical management styles deny organizations the flexibility they need to take advantage of new tools and respond quickly to opportunities.

NAVAIR and SPI, the Dynamic Duo

By Michael Friedman

Single process initiatives (SPI) is the name. Simplifying acquisition processes is the game. And nobody plays it better than the Naval Air Systems Team (NAVAIR).

NAVAIR has been a leader in reforming specifications and standards through SPI. Its SPI team’s goals are to consolidate or eliminate multiple manufacturing and management

processes and to rely on world-class commercial practices as much as possible.

The SPI team is a diverse group of competency experts and dedicated component team leaders from across the NAVAIR acquisition workforce. Under the leadership of NAVAIR’s Acquisition Operations Council, they have implemented 365 initiatives resulting in 199 contract modifications involving at least 23 major defense

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'Early Warning' on Vertical Integration

Budget cuts led to reduced business for defense contractors, so companies had to merge to survive. The result was "vertical integration," and now companies that build the major weapons systems also make the subsystems and components.

DoD has taken steps to ensure that defense contracting continues to be competitive. One of the last actions of Dr. Paul G. Kaminski before he stepped down as Under Secretary for Acquisition and Technology was to implement the recommendations of a Defense Science Board task force.

Kaminski said the task force had "found very little evidence that firms are using their newly acquired internal vertical capabilities to harm defense products or other defense firms." But he said the "potentially static business climate might in the future encourage firms to leverage their vertical business units for competitive advantage." Thus, acquisition professionals must be prepared to identify potential vertical integration problems.

Calling for an "early warning system," Kaminski directed managers to:

- Increase DoD visibility by monitoring selected key subtier suppliers. This includes DoD-wide monitoring by Deputy Under Secretary for Industrial Affairs and Installations John B. Goodman, as well as scrutiny by individual program managers of their contractors' choices of suppliers and teams.
- Foster competition at prime contractor levels "where it's economically viable" and at subtier supplier levels. Consider alternatives like open systems architecture, leader/ follower productions, funding a program risk reduction period to encourage more entrants, and elevating critical subtier product areas in source selection reviews.
- Improve DoD managers' knowledge of industry so they can be smart, effective arms-length buyers. The curricula at de-

fense schools and the credentials of DoD's acquisition managers will be expanded to emphasize industrial and business knowledge.

Kaminski offered three broad indicators to help acquisition professionals identify areas "where further investigation into vertical supply relationships may be warranted."

First, he said, is a scoring system in which "competitors declining below three for systems and critical subsystems" should be watched more carefully.

Second is notable increases in a prime contractor's make-value, as opposed to buy.

Third is sizable DoD investment in technology that could provide a performance edge and that results in limited competition.

"I consider these actions to be an important addition to our ability to be smart, well informed buyers for the long term," Kaminski said. "We are doing this, I believe, without adding excessive bureaucracy or onerous oversight or new reporting demands on the industry."

"I think this keeps us on a course to ensure our continued access to competitive, innovative subsystems and also to components that help provide us the leading edge in our future weapon systems."

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Phone: 1-800-811-4869
Fax: 703-558-7501
E-mail: ar_today@sra.com
Mail: P.O. Box 17872
 Arlington, VA 22216-7872

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Letter

Dear AR Today:

Industry has been asked to reduce costs in all areas of programs, but government still holds quarterly reviews. They come to a plant with 25 to 30 DoD, military and service contractors every three months.

If this happened only three times a year, imagine the savings! And it would enable the contractor to not be totally interrupted for a two-week period (agenda, VGs, dry runs, corrections, presentations, minutes).

Here is a challenge for DoD!

Ken Logi

O-S-C-A-R Spells Affordable Upgrade

The beauty of the OSCAR is that it looks to the future. But before you break into a chorus of "Hooray for Hollywood," *this* OSCAR refers to the Open System Core Avionics Requirements developed by the AV-8B Harrier Team.

Led by two Marine Corps officers — Col. Judson Mason, the program manager, and Lt. Col. Glenn Hoppe, AV-8B Class Desk — the team aims to achieve operational enhancements and cost reduction through the year 2015 by upgrading current hardware and software in the AV-8B onboard mission systems computers.

It all started when the Class Desk recognized the need for a system that could achieve full operating capability and keep pace with technological advances. It formed a team with members from McDonnell Douglas, the AV-8B Joint Systems Support Activity at China Lake, CA, and Computing Devices International.

In March 1996, the team won a Department of the Navy Certificate of Excellence for Acquisition Reform for helping develop this innovative, affordable approach to upgrading the avionics systems of the AV-8B Harrier. Now government and industry team members at several locations are pursuing the development, testing, evaluation, acquisition, and initial support of OSCAR.

OSCAR builds on the concept of a system that can be economically expanded for future upgrades while serving the needs of the fleet today. It will take advantage of commercial products and practices as it incorporates commercial hardware and commercial system and software development practices to produce object-oriented software. Be-

sides providing a vehicle to give the fleet the best technology to process data on short notice, OSCAR also represents a life-cycle cost savings of \$159 million for the Navy.

Technically, OSCAR is intended as a replacement for the AV-8B Mission Computer and Stores Management Computer with a Mission System Computer (MSC) and Warfare Management Computer (WMC), respectively. The main thrust is toward a layered software architecture built on the Motorola PowerPC processor using off-the-shelf development tools and interfaces.

The Harrier's new onboard flight computers will support the integration of the Advanced Medium Air-to-Air Missile (AMRAAM), MIL-STD-1760B weapons capability, and all currently known operational requirements, including Joint Direct Attack Munitions (JDAM) and Common Missile Warning System (CMWS).

Phase 1 will support the operational assessment required to evaluate a production decision for MSC and the WMC.

Phase 2 will be the OC1.1 operational flight program fleet release consisting of current C1 fleet functionality (night attack/radar), 1760 capabilities (night attack/radar), AMRAAM integration (radar), Avionics/Weapon System Enhancements (night attack/radar) and ALE-47/Advanced Strategic Tactical Expendables integration (night attack/radar).

Phase 3 will be integration of JDAM and CMWS upgrades.

Final hardware design and fabrication was scheduled for completion in July, with the software development and conversion program scheduled through

January 1999.

An operational assessment to test the suitability of OSCAR hardware and preliminary software will support a Program Executive Officer hardware production decision in late 1998 as the first part of a two-part system purchase.

Upon satisfactory completion of an operational test, the second phase of production and purchase will begin. Planned initial operational capability should be in November 1999, when the MSC, WMC, and OC1.1 Operational Flight Program will be released to the fleet.

The AV-8B Harrier II+ is also operated by the Spanish and Italian navies, and those governments are taking part in the OSCAR initiative. OSCAR is funded by the Department of the Navy, DoD's Commercial Technology Insertion Program, the Marine Corps, and the governments of Spain and Italy.

Several of the Harrier's new avionics modules can also function in the Navy's F/A-18 Hornet and the Air Forces's F-15 Eagle, as demonstrated during evaluations throughout 1996.

OSCAR has been designated an Open Systems Demonstration Project by Noel Longuemare, Principal Deputy Under Secretary of Defense. The open systems approach is the foundation for all DoD weapon systems acquisitions.

'Quote'

During my eighty-seven years I have witnessed a whole succession of technological revolutions. But none of them has done away with the need for character in the individual or the ability to think.

Bernard Baruch

Performance-Based Contracting

Savings Average 15%



Performance-based service contracting (PBSC) is exactly what it sounds like. It focuses on getting the work done, not on the way it's done, as in the old days. In fact, a key element is to write work statements so that contractors are free to decide for themselves how they'll meet the government's objective. That way, they can use their ingenuity.

Why implement PBSC? That's easy — it's a proven tool for improved contractor performance, and it has already demonstrated cost savings of 15% or more. And good contractors like it, because if they perform well, they have the edge in solicitations where *past* performance is a selection factor. (See story below.)

PBSC is also as brief and as specific as possible about the objective. This makes it easier to objectively assess contractor performance and pay only for satisfactory performance.

Here are the five essential elements of PBSC, straight from the Office of Federal Procurement Policy (OFPP):

- **Performance Work Statement.** What exactly is needed? Requirements should be stated in clear, concise, commonly used, easily understood, measurable terms.
- **Performance Standards.** What performance level does the government require? The minimum acceptable performance standard should rarely be 100 percent (since the standard directly affects the cost of the service), but too low a standard may discourage good contract performance. Standards may be accepted industry standards, or may be developed by the agency based on past workloads or best practices. Either way, they should have industry input.
- **Measurement Techniques.** How will the contractor's performance be

judged? Include a surveillance schedule and methods.

- **Incentives.** How will the government reward outstanding performance and discourage poor performance? Set positive incentives at challenging but attainable levels. Define standard performance, maximum positive and negative performance incentives, and units of measurement in the solicitation. Negative incentives, if used, should represent the value of the service lost. Create a balance between cost, performance, and schedule incentives.
- **Evaluation Criteria.** How will the government assess the contractor's proposal

and select the contractor? Select the best combination of price, technical, and past performance. Keep it simple to ensure that selection is based on significant factors.

PBSC requires discipline, teamwork, and fundamental knowledge of the process. Answering the necessary questions requires the involvement and commitment of the entire organization, (which fosters internal communication, a nice fringe benefit).

For more information on performance-based contracting, visit the OFPP website at <http://www.far.npr.gov/OFPP.html>. A Best Practices guide is available at <http://www.arnet.gov/BestP/BestPPBSC.html>.

Role of Past Performance

You're a program manager. You want to award a service contract to a vendor who performed well in the past. He offers a good price, but it isn't the lowest offer. Your contracting officer insists on going with the lowest price. The winner lets you down, and six months later everyone is sorry.

Thanks to the growing emphasis on past performance information (PPI), that kind of story may soon be found only in history books. Today, the FAR requires that PPI *must* be considered in awarding contracts worth more than \$1 million.

"When we meet with [government] end users to assess their needs, there is a much greater focus on the value of a solution as opposed to finding the cheapest product," Phil McGovern, marketing staff manager of Lucent Technologies, told *Government Executive*.

Naturally, this means more work for program managers and contracting officers. The added value of this process, however, is that the contractor receives timely feed-

back on ongoing as well as completed performance.

PPI can include the contractor's record of timeliness of performance, technical quality, cost control, program management, resources, integrity and ethics, and recognition of best practices. The assessment is done by the contracting office.

Some warnings:

- PPI must be reliable, unbiased and relevant.
- An offeror with no history cannot be penalized for that, but in a tie-breaker situation, a manager may award to a vendor with a good record over one with no record.

In addition to source selection, PPI may be used to establish competitive ranges, discuss progress with contractors, decide whether to exercise contract options, and choose among vendors on multiple award contracts. It is useful in market research and the development of acquisition strategies.

Commanders' Group Offers 7 Guides

By Dennis L. Drayer

The military and several federal agencies involved in aviation have moved to share what they have learned about performance-based business with the rest of the acquisition community.

Their vehicle is the Performance-Based Business Environment (PBBE), which was recently endorsed by the Joint Aeronautical Commanders' Group (JACG), with principals from the Air Force, Navy, Army, Marine Corps, Defense Logistics Agency, Coast Guard, Federal Aviation Administration and National Aeronautics & Space Administration.

PBBE has ambitious objectives:

- Convey product definition and key process expectations to industry in performance terms.
- Promote life cycle systems engineering and management practices, including integrated product and process development and support.
- Increase emphasis on past performance.
- Motivate process efficiency and effectiveness up and down the entire supplier base.
- Simplify acquisition and support operating methods.

A performance-based environment capitalizes on efficiencies in the commercial sector to improve military acquisition and life-cycle sustainment. Solicitations and contracts describe system performance requirements in a way that allows contractors to use their design and manufacturing ingenuity. Selection of suppliers is based on their proposed approaches, process effectiveness, and prior performance. Performance-based life-cycle man-

agement emphasizes risk management rather than risk avoidance, and it applies equally to new acquisitions, modifications and sustainment activities.

To that end, the JACG principals endorsed these PBBE products, which are intended as guidance and are not to be cited as a contractual requirement:

- **Integrated PBBE Guide**, top-level guidance to integrate overall business and technical strategy formulation through every life-cycle management phase from initial concept development to system deactivation.
- **Risk Management Pamphlet**, a framework to plan, assess, handle and monitor risks for all system, subsystem, hardware, and software acquisition programs during all life-cycle phases.
- **Performance Based Product Definition Guide**, top-level guidance for the complete technical information set necessary to support performance-based life-cycle management strategies. It discusses systems engineering information, the relationship between the product technical definition and business/contracting alternatives, product requirements definition, and management, control, and ownership-of-the-product technical definition.
- **Flexible Sustainment Guide**, description of a logical, decision-point-driven process to maximize long term operational capability and optimize investment support strategies. Two major sub-processes are described; "Reliability Based Logistics" suggests that if the system reliability exceeds the system life or technology cycle, the maintenance concept should not be an expensive organic infrastructure. "Trigger Based Item Manage-

ment" requires a logistics plan/maintenance concept re-examination when "triggers" (such as changes in reliability, technology, and/or vanishing resources) are encountered.

- **Key Supplier Processes Handbook**, an outline of top-level generic management processes used by aeronautical business sector suppliers, including program/data management, engineering, manufacturing, quality, procurement/subcontract management, and logistics. This information allows program managers to encourage the use of contractor defined and controlled processes, practices, and procedures, industry standards, national and international standards, and commercial standards and practices.
- **Contractor Performance Assessment Reporting System Form and Instruction**, a guide to systematically assess contractor performance on current aeronautical system acquisitions over \$5 million and provide critical past performance inputs to source selections.
- **Performance Risk Assessment Group Desk Guide**, an aid in assessing relevant past performance to assist the source selection authority.

These guides are available on the DoD Deskbook or through the JACG / Web Site (<http://www.wpafb.af.mil/az/jacg>). In addition, PBBE was written up in the June issue of *Contract Management* magazine.

Lt. Col. Dennis L. Drayer is chief of training integration for Performance Business and Process Re-Engineering at the Aeronautical Systems Center, Wright Patterson AFB, OH.

NAVAIR and SPI, the Dynamic Duo

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corporations. Active participants include General Electric, McDonnell Douglas, Hughes Aircraft, Lockheed Martin, Raytheon, United Technologies and Texas Instruments.

SPI is designed to reduce the number of specifications and standards that the military departments, the National Aeronautics and Space Administration, and the Federal Aviation Administration impose on the defense and aerospace industry. This reduction is accomplished through the use of a single process — government or commercial — that all agencies and departments agree to use instead of their own unique processes.

Perhaps the most significant of SPI's many advantages is that it helps contractors keep their costs down and quality up by reducing the number of

processes they must adhere to within their plant. NAVAIR's defense business base of up to \$12 billion a year offers great opportunity for future contract cost savings. Many of the single processes that NAVAIR's SPI team has implemented include commercially accepted standards such as ISO 9000, manufacturing and management processes for functions like quality assurance, inspections, property management, packaging and calibration requirements.

For example, McDonnell Douglas' implementation of its Advanced Quality System in lieu of quality standards MIL-Q-9858 and MIL-STD-1520 has already led to lower prices for the first 12 F/A-18E/F aircraft. In addition, McDonnell Douglas' current initiative to consolidate wire harness manufacturing facilities and implement its commercially developed

procedures in place of MIL-W-5088 will reduce 900 types of wire to fewer than 150, and 200 fabrication processes to 33. After full implementation and \$5 million in startup costs, McDonnell Douglas projects estimated savings of \$5 million a year across all its programs.

The team continues to foster SPI through active participation in the Aerospace Industry Association, the Electronics Industry Association, and direct liaison with defense and aerospace companies. It has an ongoing program to reach out and touch the top 100 defense contractors to promote continued participation in SPI.

More information on using SPI is available from Jackie Mercer at 301-757-6635.

Michael Friedman is the NAVAIR Reinvention Lab Manager in Patuxent River, MD.

UPCOMING EVENTS

We would like to post all events of interest to the AR community. See the box on Page 2 to find out how to notify us of your event.

- **Project Management Institute's 1997 symposium**, Sept. 26-Oct. 2, in Chicago, IL, offers a first-hand look at project management for the next century. For more information, visit <http://www.pmi.org/sympo/pmi97/pmi-97.html-ssi> or call 301-694-5243.
- **21st Century Commerce & CALS Expo USA 1997** (formerly CALS Expo) Oct. 13-16 in Orlando, FL. For more information, visit <http://www.adpansia.org/21stcentury/> or contact Shirley A. Goodman, 202-775-1440, e:mail sgoodman@apdancia.org
- **The Technology Management Symposium & Expo for Commercial and Military Products & Components Used in DoD Systems**, sponsored by the International Society of Logistics, Nov. 17-19 in Hilton Head, SC. Topics include COTS/NDI, JITS and acquisition changes in component technology. For more information, visit <http://www.sole.org/calendar/techman.html>
- **The Defense Manufacturing Conference '97** Dec. 1-4 in Palm Springs, CA. Hosted by the Joint Defense Manufacturing Technology Panel, the conference will provide a forum for presenting and discussing defense manufacturing and sustainment thrusts. For more information, visit <http://mantech.iitri.com/dmc97/index.shtml> or call 937-426-2808, e:mail utc-mmg@utcd Dayton.com

Satellite Broadcasts Will Offer Training Info

Acquisition reform is a big, hungry machine that runs on information.

In a continuing effort to provide up-to-date AR training information to the acquisition workforce, the Office of the Under Secretary of Defense for Acquisition Reform will conduct several satellite broadcasts on AR training issues over the next several months.

The scheduled broadcast topics and dates are:

- FAR Part 15** - Oct. 15
 - Market Research** - Oct. 23
 - Performance Based Service Contracting (PBSC)** - Oct. 29
 - Cost As An Independent Variable (CAIV)** - Nov. 15
 - Earned Value Management (EVM)** - Nov. 20
- Look for more information on the AR Web Site at <http://www.acq.osd.mil/ar> and in future issues of AR Today.

Measuring Results

Continued from page 1

- Remember that your results are only as good as the quality and accuracy of your data. The Coast Guard, which uses data collected by other agencies, told *Government Executive* it had "tons of information you can't make any sense of."
- Remember that collecting data isn't the same as evaluating it. One area where NHTSA is widely regarded as having done the right thing is its periodic revisiting of rules to make sure they're still performing as expected.
- Involve all stakeholders in the planning and results-measurement process.
- Try to link a specific budget figure with the outcome that was achieved or can be expected.

In keeping with the measurement trend, the defense acquisition community is trying to measure the re-

sults of acquisition reform. Scattered through this issue of *AR Today* are articles on Performance-Based Contracting, Single Process Initiatives and other AR efforts, all quoting measurement attempts.

The Navy has taken specific steps to measure its progress in acquisition reform. It picked two of the so-called Enterprise Metrics established by the AR Benchmarking Group and is monitoring them through an annual data call:

- **Product Realization Time**, the number of months needed for the average system to progress through its milestones to initial operational capability. This metric is an average of all active ACAT II, ACAT III, and ACAT IV programs and has a goal of 50% reduction from the current 76 months.
- **Acquisition Program Baseline breaches**, the number of breaches reported in one fiscal year. The goal is to have fewer than 10% of programs reporting a breach.

AR ON-LINE

Visit These Hot *Reference Sites*
On the Internet!

DAWIA, COTS, JIT, MDAP...

What? Ever wonder where you can find the definitions for Defense Acquisition acronyms? The Defense Systems Management College (DSMC) offers an extensive reference glossary at <http://www.dsmc.dsm.mil/pubs/glossary/preface.htm> Bookmark it!

"Blair House Papers." If you haven't read the reinvention rules that President Clinton and Vice President Gore gave the Cabinet in January, here's your opportunity. The famous "little red book" can be viewed at <http://www.npr.gov/library/papers/bkgrd/blair.html>

The DSMC Program Manager's Notebook at <http://www.dsmc.dsm.mil/pubs/pmnotebook/pmntoc.htm> is a handy PM tool providing fact sheets with guidance in Quality Management, Milestones in Defense Systems Acquisition, Strategy, Planning & Budgeting, and other topics.

The Handbook on Writing Performance Specifications at http://www.acq.osd.mil/es/std/sd15/sd_15.html addresses procurement, TDPs, sustainment (among other topics) and includes examples.

The DoD Guide to Integrated Product/Process Development (IPPD) (at <http://www.acq.osd.mil/te/survey/table-of-contents.html>) is the cornerstone of DoD acquisition reform. This document helps set the stage for implementing IPPD.



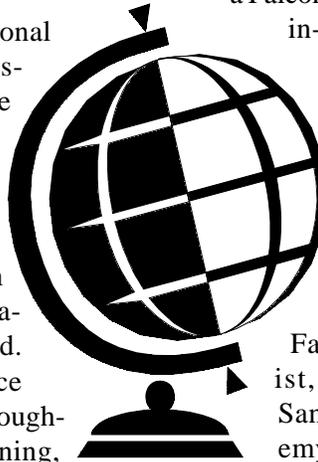
FalconView a Finalist in Global Contest

Air Force News Service

A software program designed by the Air National Guard and Air Force Reserve to plan flying missions was one of five finalists in a worldwide competition.

The program, FalconView, uses off-the-shelf technology to let aircrew members view elevation data, satellite imagery, airport data and navigational aid and hazard information on their PCs. They previously had to refer to paper maps and charts, which were often outdated.

Falcon View's easy-to-use Windows interface has led to its use by more than 13,000 people throughout the Air Force. In addition to its aid in planning,



a FalconView-Global Positioning Satellite link provides in-flight precision location displays in the cockpit of many military aircraft.

It was a finalist in the "core business" category of the 1997 World Windows Open, which recognizes developers and their companies for innovative custom application work solving business problems using Microsoft Windows.

"Spirits have been very high here at the FalconView team since being named as a finalist," said Air National Guard Maj. Bobby Sandford. "It's like being nominated for an Academy Award."