AVIATION WEEK
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## AVIATION WEEK EXECUTIVE ROUNDTABLE

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# FLEET READINESS AND PERFORMANCE-BASED LOGISTICS SUMMIT

**Hosted By:**
Gen. Gregory S. "Speedy" Martin
Commander, U.S. Air Force Materiel Command
and David Pauling
Asst. Dep. Under Sec. of Defense, Materiel Readiness/Maintenance Policy

**Written By:**
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Military and industry leaders met April 18 in Texas for the third Aviation Week Executive Roundtable: Fleet Readiness and Performance-Based Logistics Summit. The summit, sponsored by UGS, a product life-cycle management company, was hosted by U.S. Air Force Gen. Gregory S. "Speedy" Martin and David Pauling, assistant deputy under secretary of defense for materiel readiness and maintenance policy.

Although Air Force Gen. Martin was one of the official hosts, the roundtable participants included representatives of the U.S. Navy, Marines and Army, as well as their suppliers. The participants reflected joint military cooperation and collaboration among industry companies to achieve common goals.

The summit was the third in a series of Aviation Week Executive Roundtables. Tim Nichols of UGS said the convergence of technology and the military's need to operate in a joint and collaborative fashion in terms of fielding, operating and maintaining systems makes the summit a critical part of strategic planning. "There is a need to share information, not just data, and to apply that information in a way that drives down costs, increases the speed with which systems are put into use, and to drive savings into top-tier technology development rather than reinvention on a continuous basis," Nichol said. "This group focused on this need."

Pauling outlined the challenge: create a defense capability that achieves "SEMRS." His reference was to Sustained Effective Material Readiness, defined as increasing the availability of weapons systems and reducing time required to return a system to availability.

In real terms, Pauling wants to drive the materiel readiness/maintenance spend level from the current $60 billion to $48-50 billion annually and to improve the turnaround time on system upgrade/maintenance by 30 percent. "We need you, as an industry, to come to us with a plan to achieve this," he said.

The common belief that reducing spending will kill the industry was a major discussion point. Pauling noted that some type of return—a percentage of savings allocated as investment in technology "stretch" or innovation and insertion—must be identified to make performance improvements a reality. Results, not repair, become the imperative.

Gen. Martin, commander of Air Force Materiel Command (AFMC) at Wright-Patterson AFB, took Pauling's challenge to an operational level in his discussion of performance-based logistics (PBL). "Everyone uses the term, but they all have a different view," Martin said. "Using the term allows them to be a part of the conversation."

**"There must be a clear articulation of performance goals, of metrics, of the organizational structure, of the chain involved in making changes … and clear identification of the incentives for suppliers to work with us."**

**—Gen. Gregory S. "Speedy" Martin, Commander, U.S. Air Force Materiel Command**

Gen. Martin noted that while the expectation is results-based performance, those negotiating the contracts—on the part of the military and from industry—had not been made fully aware of how to implement the new contracting models. "There must be a clear articulation of performance goals, of metrics, of the organizational structure, of the chain involved in making changes … and clear identification of the incentives for suppliers to work with us."

Gen. Martin's presentation also underscored the importance of accurate data and metrics in taking quick action—"knowing which lever" to pull to make decisions and achieve the needed result. The digital thread of a weapons system—from its contract initiation through its utilization in the field—must provide analysis, not merely data.

## DEFINING PBL

PBL defines performance requirements in terms of readiness and cycle time for maintenance/upgrades. It also

defines who the owner is, who the user is, includes metrics, identifies the organization achieving the logistical goals, and describes oversight methods.

## PBL GOALS

- Increase Operational Availability
- Decrease Cost Per Unit Usage
- Decrease Logistics Response Time
- Increase Operational Reliability
- Decrease Logistics Footprint
- Avoid Obsolescence

The goal of PBL is a 10-percent reduction in annual operating support cost by FY2011, and a 20-percent increase in equipment/system availability.

For the U.S. Air Force, the goals have been developed at the next operational level. In terms of Air Force Materiel Command initiatives, based on the work of AFMC under Gen. Lester Lyles and by Gen. Martin, the goals are:

| Depot Maintenance Transformation | Purchasing and Supply Chain Management | Product Support Campaign (draft) |
|---|---|---|
| • 25% decrease in flow days | • 50% drop in sourcing cycle time | • 10% decrease in life-cycle costs |
| • 100% on-time delivery | • 20% increase in supply materiel availability | • Projected actual life-cycle costs within 10% of bid |
| • 10% decrease in costs | • 20% decrease in purchase and repair dollars | • 20% increase in weapon system availability |
| • 20% increase in aircraft availability | | |

Aviation Week Executive Roundtable participants were challenged to develop a contract template for performance-based logistics that defines:

- The appropriate level of system/subsystem/item to be included in a performance-based contract.
- Establishes collaboration between end-user and supplier with regard to systems engineering and performance-based logistics.
- Creates incentives for the insertion of new technology, particularly on older aircraft.
- Ensures a role for small business, where much innovation and creativity takes place.
- Identifies the barriers to technology transfer that enables the system approach—between companies, military branches, agencies and countries.

Among the concerns for lead system integrators or OEMs is original intent for global participation and the reality of technology-transfer decision-making. Global partners want a meaningful role on major systems, beyond bending metal. However, the reality of technology-transfer decision-making creates a breach in the contracting process. Participants noted that licensing agreements need to be clarified as part of the process of defining PBL. Gen. Martin mentioned that Congressional committees are reviewing technology-transfer issues as part of trade considerations. This links directly to previous roundtable action items to identify the cost to the U.S.—in speed, in dollars, in affectivity and in credibility—of seeking global collaboration and then backing off due to conflicts between U.S. diplomacy and U.S. trade strategies.

## THE OUTCOMES

Six tables of participants addressed the components of establishing a meaningful PBL approach. Table leaders included David Pauling; Russ Sparks, vice president of military engine programs for GE Aircraft Engines; John Phillips, vice president of military support programs, The Home Depot; Tom Burbage, vice president and general manager of Joint Strike Fighter integration, Lockheed Martin Aeronautics; David Nagy, vice president and IPT leader, Northrop Grumman; Charles T. "Tony" Robertson, vice president of Air Force systems support, Boeing Integrated Defense Systems; and Tim Nichols, UGS.

One function of the discussion groups was to establish shared concern for common goals: participants quickly arrived at a common understanding and shared views:

- PBL implies wider consideration than that of product/system alone—partnering, international collaboration, ability to change mission, ability to insert new technology, etc.—during the contract phase.
- The military or agency "owner" of a contract needs to determine its level—system, sub-system or item.
- Metrics must influence results vs. repairs to include modeling to determine the cause-and-effect impact to metrics.
- A new method of assuring small business develop-

ment/share of work is needed—instead of percentage, perhaps flow-through of actual dollars.

- Industry needs to move to managing a weapons system as a business vs. selling parts.
- Technology refresh/upgrades need to be included in long-term planning as part of the incentive to move toward managing systems instead of merely providing parts.
- There is a need to recognize that some items do not fit the PBL model in a cost-effective manner, and those instances need to be identified.

As part of the Aviation Week Executive Roundtable process, participants also identified action items to enable these changes. These include:

- JSF lessons learned on PBL contract model formulated and shared (Tom Burbage).
- The U.S. Army will do a reverse scenario to determine PBL impact to legacy aviation systems such as M-TADS/PNVS on the AH-64 helicopter (Kevin Rees, John Lund).
- Northrop Grumman Integrated Systems will identify a program for the reverse scenario (David Nagy).
- Boeing is to evaluate a reverse scenario for the C-17 legacy system (Tony Robertson).
- Need to reach out to small business to determine whether PBL fits at the piece-part level (to be assigned).
- Build the PBL concept into Defense Acquisition policy/education and parallel programs in industry (John Phillips).
- Establish a knowledge management system to track meaningful data on PBL contracts to enable decision-making, risk management and improve readiness capability (Tim Nichols).

## UGS

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## AVIATION WEEK EXECUTIVE ROUNDTABLES

The Aviation Week Executive Roundtables are an invitation-only forum in which hands-on program executives meet to address issues common to technology development and industry effectiveness as it applies to space exploration, defense, security and commercial air transport.

The roundtables are an outgrowth of the Aviation Week Advisory Panels. The executives on these panels initially called for action planning surrounding several critical issues:

- Industry interoperability.
- Technology transfer/sharing.
- System lifecycle management.
- Development of future program leaders.
- Redefining engineering performance to fit new engineering task models.

From the work of these individuals, Aviation Week has held three Executive Roundtables. The first two were held to gain shared understanding of issues and held in conjunction with the Aerospace & Defense Programs Conference. The Toulouse World Aerospace Symposium site was used to develop action plans to address the critical issues.

The third roundtable was developed from these meetings, to define and move forward the definition of performance-based logistics in support of weapons systems readiness.