

# Lockheed Martin Forges Relationships with Best-Value Suppliers

## Uncle Sam Stands to Reap, Substantial, Auditable Savings

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Between 1985 and 1994, the Department of Defense (DoD) procurement budget fell by almost 65 percent. In response to this dramatic decline, DoD began a thrust toward commercial practices and reduced oversight. Former Secretary of Defense William J. Perry's implementation in December 1995 of the Single Process Initiative (SPI) as a preferred DoD business practice, was one of the major results. Lockheed Martin Aeronautics Sector, in search of ways to take advantage of SPI and reduce costs to remain competitive, undertook an in-depth study of operational costs to determine the best opportunities for cost savings.

### Logical First Step — Consolidate Aeronautics Sector Procurement

A major component of our study was determining the viability of consolidating the procurement functions of the Aero-

nautics Sector. Toward that end, we looked at Lockheed Martin Tactical Aircraft Systems in Fort Worth, Texas; Aeronautical Systems in Marietta, Ga.; and the Skunk Works in Palmdale, Calif.

The results of our study clearly showed that material costs represented approximately 47 percent of total costs, gross inventory constituted 72 percent of total assets (before progress payments), material personnel accounted for 4.5 percent of total headcount expenditures, and 2 percent of suppliers represented 75 percent of total material cost. As a result, material

JOINT STRIKE FIGHTER  
Image courtesy The Boeing Company



F-22 RAPTOR  
Photo courtesy The Boeing Company

FIGURE 1. Key Areas of Opportunity



emerged as a primary opportunity for cost reduction (Figure 1).

In late 1995, Lockheed Martin decided to consolidate the various Procurement organizations within the Sector that procures materials for the F-16, F-22, C-130, Joint Strike Fighter (JSF), F-117, F-2, X-33 Single Stage-to-Orbit (SSTO), Reusable Launch Vehicle (RLV), and the Joint Air-to-Surface Standoff Missile (JASSM). Influencing this decision was the fact that significant merger and -acquisition activity had created many fragmented and overlapping buying organizations in multiple locations (Figures 2 and 3).

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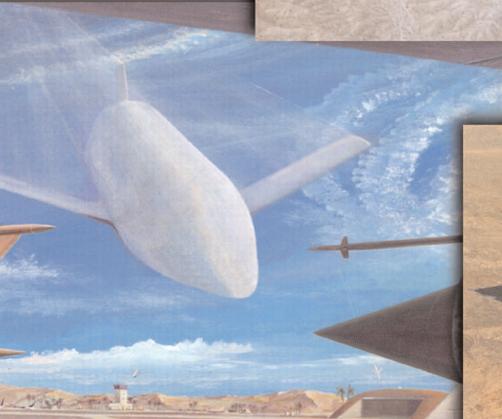
## Strategies

One of AMMC's key strategies is to aggregate requirements from all Aeronautics sites and consolidate those procurements with best-value suppliers who consistently demonstrate high lev-

COMBAT TALON I C-130 HERCULES  
DoD photo



F-16C FALCON  
DoD photo



JOINT AIR-TO-SURFACE STANDOFF MISSILE  
(JASSM)  
Image courtesy Lockheed Martin Electronics & Missiles



LOCKHEED F-117A STEALTH FIGHTER  
Photo courtesy Lockheed Martin Electronics & Missiles

From DoD's perspective, the primary advantage of Lockheed Martin's decision to consolidate is cost savings (Figure 4) derived from aggregating requirements for multiple programs and sites, resulting in volume-based price reductions. Additionally, consolidation significantly reduces administrative duplication, a problem typically inherent to many separate companies individually buying similar material. The resulting organization – the Aeronautics Material Management Center (AMMC) – is implementing a number of innovative procurement practices, some developed in concert with the suppliers.

els of performance. A second major strategy is to forge long-term contractual relationships with these suppliers. The suppliers benefit from a significantly increased business base and from long-term contracts. These two strategies have been used successfully for a wide-range of products, ranging from office supplies to weapon system hardware.

One tangible example of the application of these strategies is AMMC's Integrated Supply concept, which reduces costs by

streamlining the materials management process. Besides allowing AMMC to forge long-term contractual relationships with suppliers, the concept also generates cost reductions in several areas:

- Supplier Base Reduction
- Elimination of Excess Inventories and Inventory Investment
- Standardization of Parts and Products
- Total Administrative Cost Reduction

In effect, AMMC receives the benefit of product cost reductions because the major supplier incorporates requirements into its overall business base for volume pricing.

A prime example of AMMC's success with the Integrated Supply concept, is the recent five-year, multi-million dollar award to W. W. Grainger, Inc. Grainger, a leading provider of operating supplies, specializes in factory support and Maintenance, Repair, and Overhaul (MRO) commodities to various sites within the Aeronautics sector.

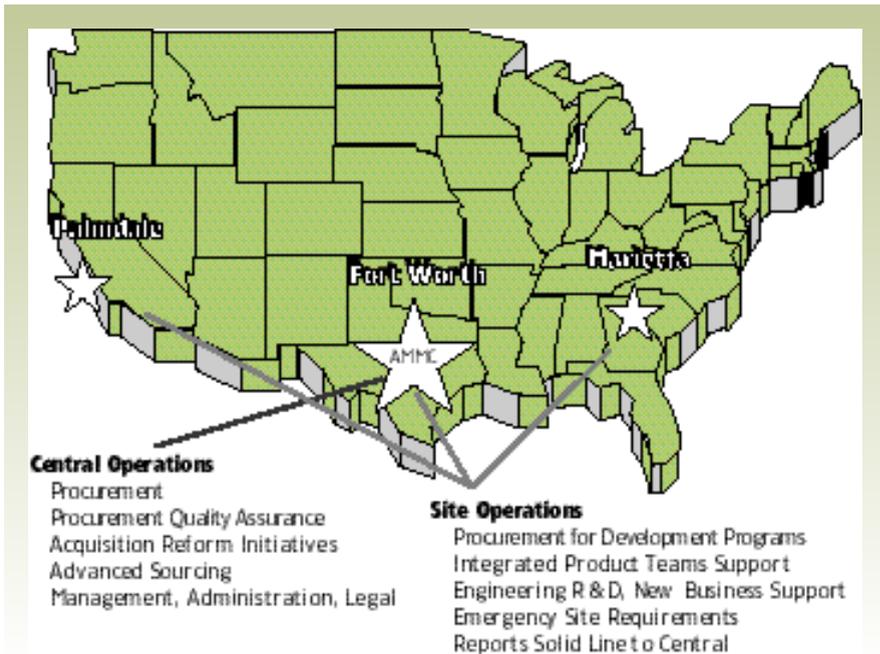
The agreement resulted in a mutually beneficial, long-term partnership, reducing costs, improving quality, and providing a larger business base for the supplier. Total booked and committed savings to date are several million dollars. Because of its success, we expanded the

agreement to include other Lockheed Martin Sectors, and discussions are underway to make it applicable to all Lockheed Martin companies, further enhancing savings opportunities.

## Group Purchasing Agreements

AMMC also participates heavily in the Group Purchasing Agreement (GPA) process, which allows Lockheed Martin companies with disparate product lines to combine purchasing requirements for common commodities into one large negotiation, leveraging our combined dollar volume with fewer suppliers for lower pricing. Enabling the up-front

FIGURE 2. AMMC Locations and Operations



establishment of contract terms and conditions, the GPA process also permits future acquisitions of GPA items as a simplified procurement. This not only achieves lower pricing, but lowers administrative involvement by AMMC personnel, further reducing costs.

These consolidated requirements add significant volume to the GPA commodity negotiations for fasteners, connectors, relays, miscellaneous hardware, and wire/cable. A number of other commodity negotiations in which AMMC anticipates future participation include miscellaneous electronics piece parts and fasteners.

### Corporate Purchasing Agreements

Still another initiative, Corporate Purchasing Agreements, entails gathering requirements from across Lockheed Martin Corporation and aggregating total requirements to leverage favorable pricing. Using this approach, we expect software savings for the Corporation to produce savings in the tens of millions of dollars over the next three years. Through leveraged negotiations by various lead companies throughout Lockheed Martin, we also achieved significant savings on engineering workstations and personal computers.

Other savings projects at Lockheed Martin resulted in aggregated requirements for sealants, paints, and adhesives. In essence, Lockheed Martin consolidates requirements for these commodities for a single competition or negotiation, then achieves savings by leveraging the manufacturer's total business with Lockheed Martin for these commodities.

Almost any commodity lends itself to aggregating requirements. This practice is not only good for Lockheed Martin,

but also for the suppliers. An added benefit – these agreements can also be made available to our suppliers, so they can then procure material for our programs at our corporate discounted rate, ultimately lowering costs for everyone.

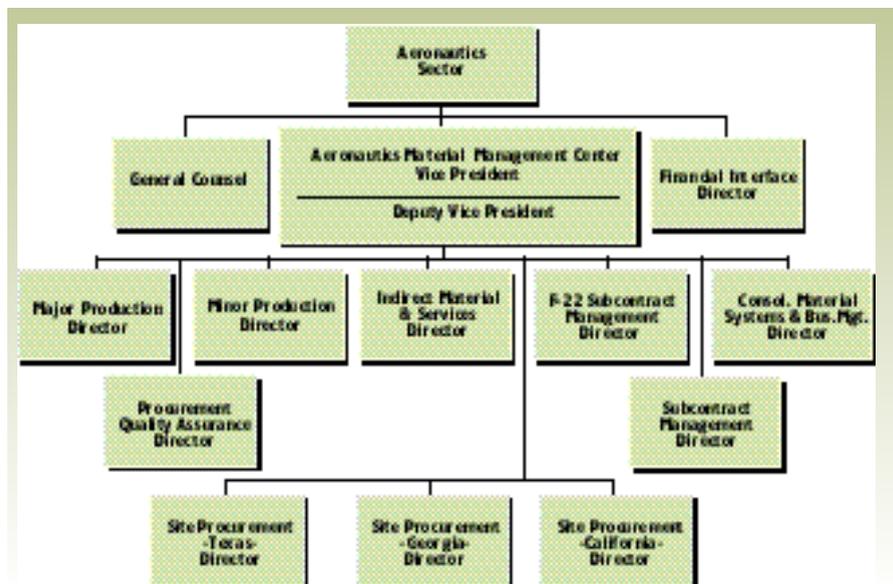
### Process Reviews

To enable suppliers to become more efficient, the government and Lockheed Martin jointly review administrative processes and flow-down requirements that are non-value added. This requirements reduction process highlighted the need for a number of process changes, which yielded efficiencies and savings that benefited our suppliers and customers.

The next step in this process is the Supplier Product and Process Improvement (SPPI) program. A cross-functional team of AMMC, engineering, and manufacturing personnel, the program team works in concert with suppliers to eliminate waste and streamline supplier processes from design through production. And finally, SPPI provides a major opportunity to employ the principles of SPI as AMMC reviews its requirements to determine which ones can be reduced or eliminated.

Seventeen companies are currently participating, with 14 additional companies expected to participate in 1998.

FIGURE 3. AMMC Organization



Estimated, potential savings identified to date total over \$215 million.

## Modified Requirements Contracts

AMMC uses multi-year procurements called Modified Requirements Contracts to form long-term relationships with suppliers. Since contracting can be done once during the contracted period instead of annually or more often, AMMC and the supplier benefit from lower overall pricing and significantly reduced administration.

As part of the partnership, AMMC assures the supplier that if new business is generated, that supplier will receive the business, as long as they continue to meet agreed-to cost, quality, and schedule performance.

These contracts can range up to five years in length, an arrangement that allows for schedule flexibility, minimal estimating and proposal activity, and allows the supplier to do long-term planning, including facilities, manpower, and capital investments. It also allows suppliers to buy material in larger quantities, because they receive a longer horizon of firm business.

Further, Lockheed Martin found that aggregating requirements for other material, such as wiring harnesses, also showed enormous savings, along with high-quality and on-time delivery. As a result, we negotiated contracts that now apply corporate-wide.

## Systems

System improvements such as Electronic Commerce are also producing significant reductions in cycle times, and resulting in manpower and paperwork cost savings by electronically transmitting business information and technical data. The benefits of using Electronic Commerce tools and Internet-based integrated enterprise applications are readily apparent to suppliers as well as Lockheed Martin.

When fully implemented next year, a common purchasing system will help make these electronic applications con-

sistent across the Aeronautics sites. With common processes, procedures and systems, and electronic communication with the supplier base, AMMC is helping Lockheed Martin achieve its goal of operating as a virtual organization.

## Acquisition Reform

DoD and Lockheed Martin have made significant progress in implementing SPI since the inception of AMMC. The AMMC SPI team was first established in 1996. By March 1997, the government approved the Lockheed Martin Tactical Aircraft Systems subcontractor SPI enabling provision, and the Lockheed Martin Aeronautical Systems provision in April 1997. Since that time, 46 suppliers submitted proposals, and 17 have already received disposition. Also, across AMMC all applicable Federal Acquisition Streamlining Act (FASA) provisions allowing commercial-type quality requirements, and contract terms and conditions were flowed down to all suppliers.

## Results

Lockheed Martin Corporation established a cost savings goal for AMMC of \$410 million by 1999. By using the consolidation strategies discussed in this article, they estimate annual recurring savings beyond 1999 of \$100 million. Through 2nd Qtr, CY 1998, total booked and committed savings totaled \$420 million, thus accomplishing the four-year

goal in two and one-half years. Published quarterly, Lockheed Martin Corporate internal auditors and the Finance organization of AMMC audit and validate these savings.

Additional savings projects are in the works or under consideration to achieve the four-year savings goal. AMMC identified an additional 117 savings projects, with an estimated savings value of \$92 million, and effort continues to increase the number of candidate projects.

In addition to savings, since January 1996 AMMC has enjoyed significant improvement in a number of other key metric indicators:

- Material Shortages (reduced by 48 percent)
- Span Times (2-percent reduction in F-16 and C-130 lead times, as industry lead times increased by 16 percent)
- Inventory (increased turns 36 percent)
- Supplier Base (reduced by 36 percent)
- Supplier Quality (product yield increased to 99.9 percent)

The bottom line, as always, is savings. Through mutually beneficial, long-term relationships between AMMC and its best-value suppliers, the government is seeing substantial, auditable savings, and reaping the benefit of significant improvements in quality, inventory, and cycle times.

FIGURE 4. Progress (Savings) to Date

