

S U P P L Y I N G T H E G I A N T



BY LARRY LAWSON

When I was program manager for Lockheed Martin on the Joint Air Surface Standoff Missile (JASSM), the government-stated objective for this stealthy high-performance cruise missile was a unit price of \$400,000. The predecessor program, which was cancelled, had cost four times more.

IT WAS CRITICAL FOR OUR TEAM TO FIND A RADICALLY different way of doing business. Deciding to build the airframe out of composites was the first step, refining processes from the boat building industry was second, and the final step was choosing a supplier.

Lockheed Martin built the first prototypes at our Skunk Works facility in Palmdale, California. These units were hand-built and used early prototypical tooling. They looked great but were not affordable.

Along these same lines, my favorite JASSM story is the supplier we chose for the wings of the missile. One really creative individual in our organization knew about a company that built surfboards and had ventured into building the blades for windmills. We went down to their factory in a disadvantaged part of Los Angeles, saw what we liked and gave them a chance. Today, this technique is used not only on JASSM but on another missile in our portfolio, as well.



WE BROUGHT THIS SMALL HOUSE FROM BEING A BASEBALL BAT PROVIDER TO AN AEROSPACE HOUSE, AND IT HAS BEEN A REMARKABLE TRANSFORMATION.

We had to focus on minimizing touch labor and cycle time and reducing material costs. We needed a company to produce the composite quilts we would use to avoid hand lay-ups.

The company we found surprised a lot of people. We partnered with a small company outside of Boston whose primary business was making baseball bats and golf club shafts. They had never built a military product but they knew how to weave carbon fiber and build basic composite parts. Their experience in the commercial market had forced them to learn to build these parts to final shapes with little labor, and they could control material price because they bought fiber as a commodity.

We began our efforts with them by building prototypes and eventually came up with fuselages that were usable with some rework. We began testing these bodies for material and structural properties and then using them in flight test articles. Once we qualified the integrity of processes we could focus solely on first-pass quality. Lockheed Martin, the Air Force Mantech office, and the vendor continued to refine the process to meet or exceed all our objectives. We brought this small house from being a baseball bat provider to an aerospace house, and it has been a remarkable transformation.

We had no choice but to operate this way. Our customer, DoD, told us point blank: "We want a missile in half the time for half the cost of what we used to be willing to pay." We had entered the era of acquisition reform. Acquisition reform gave us the freedom to become highly creative in developing solutions that best met the customer objectives. "Faster, Better, Cheaper" wasn't just a NASA concept. The government charter of quick turnaround at low cost forced us to demonstrate we could build this thing right and do it for what we said it would cost. Prototyping was a key component of our strategy. •

LESSON

- To achieve remarkable results from a contractor, you must demand it unequivocally. However, you must also release the contractor from bureaucratic constraints. Most important of all, you must select a contractor who is willing to take on such risk.

QUESTION

Have you ever considered creating an environment where you required your contractor or subcontractor to be more innovative?



"Before acquisition reform, the government said to its contractors, 'Follow these military standards and everything will be okay,'" remarks **LARRY LAWSON**, Vice President of Systems Integration and Business Development for Lockheed Martin Corporation. "From a contractor's point of view, that was a comfortable place to be. You knew that if you followed the handbook you were in good shape. Suddenly, we found ourselves in a position where our customer was saying, 'Throw out all the standards. You don't have to follow them. I don't want you to reference a single military standard.'" At the time, Lawson served Lockheed Martin as Vice President of Strike Weapons, which included the Joint Air-to-Surface Standoff Missile (JASSM). The Office of the Secretary of Defense honored JASSM with the David Packard Award for acquisition excellence. Mr. Lawson has received the Inventor and Manager of the Year awards from Lockheed Martin and holds patents in Advanced Discrimination Technology.