

AEROSPACE & DEFENSE GLOBAL LEADERS SERIES

A CONVERSATION WITH ROBERT STEVENS
EXECUTIVE CHAIRMAN, LOCKHEED MARTIN

By Anthony Velocci

As the world's largest aerospace/defense contractor and the parent of the famed Skunk Works, Lockheed Martin has been responsible for many of the most innovative, futuristic platforms the world has ever seen, starting with the SR-71. In the company's long evolution, however, the enterprise also has experienced difficulties serious enough to threaten its viability. In the late 1990s, after completing multiple mergers in a short period, the company seemed to lack focus and was seen in some circles as too big to manage. That is when Bob Stevens was promoted to Chief Financial Officer and led one of the industry's most dramatic turnarounds in the post-Cold War era.

From 2004 through 2013, Stevens served as Chairman and CEO, and is now Executive Chairman. In the following interview with former Aviation Week & Space Technology Editor-in-Chief Tony Velocci—the second in Dassault Systemes' Leadership series—Stevens shares his thoughts on the customer experience, the challenge of balancing short and long term goals, and how he defines leadership.



Robert Stevens, CEO

Everyone has at least one profound lesson in their careers that helps guide them in making better decisions on the road to success. Is there one that stands out in your mind?

I've had a handful. One foundational experience was enlisting in the Marine Corps at 18 years old. In the Marines, there is a culture of leadership based on values that becomes ingrained in

your character, your thought process, your behavior, and what you expect from others.

How about in your professional life?

I worked for some great role models. One of my early bosses, the president of Fairchild Republic, was very instrumental in shaping my early thoughts about executive behavior. Once, as a young manager, I got word that he wanted to see me about a report I had written for him. After waiting well into the evening for an appointment in his office, he asked me a series of questions to find out how much thought and care I had put into the report:

"Have you done a thorough and detailed analysis...is your assessment of good quality...are you sure about your conclusions?" I told him that I was sure and confident, at which point he pointed to a single word that I had misspelled, and followed with this logic. If I was sure and confident and there was an error in the spelling of a word, something that's easily checked, then why should he have confidence that the rest of the content was accurate and of good quality? He wasn't angry. He was disappointed, which was worse. He told me to never submit work that was not of the highest quality that our customers would deserve

and expect. The idea that this person, running a large company, would stay late to give me a dressing down over a single misspelled word made a huge impression. The lesson wasn't about spelling. It was about setting high standards, meeting expectations, and doing your very best at every task every day.

Aerospace customers have grown more demanding in recent years. How is Lockheed Martin trying to respond to these new expectations?

The demands and expectations from our customers can and do change rapidly. Not long ago, our government customers wanted transformational technologies; technology that would skip a generation. To achieve that goal, our industry fundamentally retooled, allocating more resources to R&D, accelerating more bold concepts, taking on more risk, and pushing the culture to reach far. Now we have been asked to be much more conservative, to abandon leap-ahead exploration and focus on technology that's "good enough," to reduce costs and focus on affordability. For industry, this change is dramatic and requires substantial time and attention. It is much easier for the government to declare a change in policy than it is for companies to implement that change. I think Lockheed Martin has been the industry leader in driving ahead on this new course.

What is your idea of the optimum customer experience?

When the customer is successful in their mission. It is very hard to have any one customer at any one time completely satisfied. However, we can give them the capabilities they need to accomplish their mission by listening to what their challenges are, and understanding how we can allocate resources and apply our experience and energy to contribute to their success. If our customers are successful, we are successful.

What lessons do you think other companies could learn from the way Lockheed Martin, under your leadership, approached the challenge of delivering the optimum customer experience?

We applied exceptionally rigorous discipline and focus to fundamentals. That may not sound exciting, but if you're an aerospace and defense company, you need to have engineering excellence. You need to have an execution model in design, development, production, and sustainment, and you need to continually refine that model. You must consistently deliver against a set of exceptionally demanding commitments while setting uncompromisingly high standards.

We spend a lot of time talking about what "perfect" looks like. Knowing full well that we all have limitations, we strive to achieve the highest performance possible. When we don't, we are very candid with ourselves that anything less than perfect is unacceptable, and we must redouble our effort and move forward.

What is the essential quality or ingredient for success that underperforming companies seem to overlook?

I don't know if it's a single ingredient or an array of ingredients. At Lockheed Martin, we have a lot of spirited discussions about the expectations of employees, shareholders and customers, and about how we should allocate capital. But when we have settled on an approach, everybody has a playbook and pursues it every day. We are relentless. That is where an enterprise gets its maximum operating leverage.

If you want to understand how to deliver a customer experience at the highest levels, you must have a feel for what that experience should be. You cannot understand your customers when sitting in your office because you're too insulated. You must go to where customers work, see the world through their eyes, listen more than you talk, and share what you've learned with people who are responsible for product design, development, production, and sustainment. I got out as often as I could. I have been catapulted off the deck of the Harry S. Truman (aircraft carrier) in an F/A-18, flown an AH-64 Apache helicopter at treetop level at night, ridden to the edge of space in a U-2, and visited our forward-deployed troops in Afghanistan. That is living a day in the lives of our customers, and you can't come away from those experiences without great admiration for what they do and an abiding commitment to get our part right. In every market, customers have a set of needs and interests that define value in a specific way. It is incumbent upon the leadership of an enterprise to understand that value and how to enrich it.

Under your leadership, what did Lockheed Martin do to make sure the company stayed focused on innovation and new technologies to meet the needs of your customers?

You can't cut your way to long-term success, you must invest. If you adopt a management model that only involves cost cutting, particularly in R&D, that may work for the first year in terms of generating better financial performance, but it will not sustain the business over the long haul. It takes a balance of cutting costs and driving efficiencies while making sound investments. During the last five years, we reduced our overhead expenditures by hundreds of millions of dollars while simultaneously increasing our investment in R&D.

I'll give you a specific example. We're living in a world today that is the Wild West relative to information technology and cyber security. You cannot cut investment in these areas and hope to be a global security provider in the 21st Century. We needed more investment resources in this domain and the way we got them was to aggressively attack our cost structure and make hard choices with respect to resource allocation. That action allowed us to increase our investment in IR&D by more than \$100 million during a period of business contraction because that is what the strategic environment required of us. I am very proud of our leadership team for their willingness to routinely engage in this practice.

What role, if any, have business practices outside of A&D influenced what you did to improve the customer experience?

A lot. For example, we have always built airplanes in relatively static fixtures where we move the airplane as it is progressively assembled to a new set of expensive tools. As we looked at the early demand expectations for the F-35, we looked at the concept of a moving assembly line and examined whether we could apply such long-standing concepts from the auto industry to airplane manufacturing. We visited Ford, got some great ideas, and if you were to visit our Fort Worth facility, you would see we are using a moving assembly line for assembling F-35s.

If we can improve quality and lower costs for our customers, make the work environment safer for our employees, and create a better product, we will incorporate an idea from wherever we find it. We may tailor it to our needs, but we will try to draw the maximum value from that idea. I believe our customers expect us to do that on their behalf.

Are you at all concerned that the industry is becoming too risk-averse, given your customers' changing expectations and the new operating environment?

I do believe the environment in which the aerospace and defense industry operates has become more risk-averse, and I do not believe that this direction is healthy or desirable. Our industry has taken on some of the most demanding challenges ever envisioned; the invention of powered flight, the development of rockets and spacecraft supporting exploration of the universe, advancing precision electronics and information systems. Through the application of advanced science, we create things that have not existed before and we do this in public. Fundamental scientific methodology requires a degree of conjecture and experimentation when seeking knowledge and exploring the unknown, where sometimes a hypothesis is confirmed and sometimes it is not, but with each effort, much is learned, and the learning valuable.

In today's climate, however, where any outcome that is not immediately perfect draws a huge level of public criticism, there is a strong disincentive for people and institutions to take the kinds of risks that are necessary to drive discovery. Let me give you an example:

Early in my tenure at Lockheed Martin, I had the good fortune of reading some of Kelly Johnson's notebooks. [Kelly Johnson was the father of the legendary Skunk Works, which was responsible for some of the most visionary, aeronautical technology in the history of aviation.] In one entry, he made notations about an airplane's high-speed taxi test. The aircraft took off prematurely

due to uncertain wind gusts and its lift characteristics, then “porpoised” in flight. A hard landing compressed the gear and the brakes caught fire. Kelly appended in the margin, “Learned a great deal. Great test.” In today’s environment, that test would be a highly publicized failure and the program might well have been canceled.

Physics haven’t changed. Scientific methodology hasn’t changed. We don’t know everything about everything. A development program is a program of exploration. That’s why we test. What’s changed is the attitude and understanding about learning and risk. We have diminished our tolerance for things that do not go perfectly well, and amplified our desire to criticize. All of this is driving much less tolerance for risk, and this is not good for the future of exploration.

What is the definition of leadership?

Leadership is the ability to prepare an organization for change and direct it through uncertainty. Leaders understand the essence of the enterprise, what it believes in, and why. They assess the world in which we live and what it’s apt to look like in the future. They then bring their perspective forward, lay in the resources, prepare the workforce, set the standards, invest in technologies and people, and inspire and motivate others so the enterprise will prosper and contribute to a very defined set of goals in the future. The leaders at Lockheed Martin have been able to do that very, very well because we fully immersed ourselves in the process of leadership development.



A 24-year veteran of *Aviation Week*, Tony Velocci is former editor-in-chief of *Aviation Week & Space Technology* magazine as well as editorial director of Aviation Week Group.

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