Security Solutions

An Interview with Dr. Gene W. Ray, Chairman of the Board, President, and Chief Executive Officer, The Titan Corporation, San Diego

EDITORS' NOTE *Prior to launching The Titan Corporation in 1981, Gene Ray spent 11 years at Science Applications International Corporation, where he served as executive vice president, general manager, and director. He previously served in strategic leadership positions in the U.S. Air Force, and he began his career with the Aerospace Corporation, where he contributed to weapon system analysis programs. He has served as CEO and a director of Titan Corporation since the company's inception. He was elected chairman of the board in April 1999. Ray holds a B.S. in mathematics, physics, and chemistry from Murray State University, an M.S. in physics, and a Ph.D. in theoretical physics, both from the University of Tennessee.*

Dr. Gene W. Ray

COMPANY BRIEF *Founded in 1981 and headquartered in San Diego, The Titan Corporation is a leading provider of comprehensive information and communications products, solutions, and services to the U.S. Department of Defense, intelligence agencies, and other government customers. Listed on the New York Stock Exchange as TTN, and employing around 12,000 people, Titan services clients in three broad business areas: transformational programs; C4ISR (command, control, communications, computer, intelligence, surveillance, and reconnaissance); and homeland security and war on terrorism. The company reported sales of $2.05 billion in 2004.*

What are The Titan Corporation's principal products and services? Which business segments offer the best prospects for growth?

We provide national-security solutions to the U.S. Department of Defense, the intelligence agencies, the Department of Homeland Security, and other government agencies. These products and services cover three broad areas. First is an area that we call transformational programs. As everyone knows, the threats the U.S. faces today are very different from the threats we faced during the Cold War. As a result, the Department of Defense needs different capabilities and different weapon systems. One of Secretary of Defense Donald Rumsfeld's major objectives has been to transform the military in such a way as to be able to counter asymmetrical threats. We are playing a key role in that transformation.

Transformational systems that counter a specific threat must be developed in a short period of time and at an affordable price. An excellent example of this is a ship we developed for the U.S. Navy called the Sea Fighter, christened on February 5th of this year. This 262-foot catamaran can travel at 50 knots, cross oceans without being refueled, and operate close to shore in very shallow waters. Its multi-mission capabilities allow it to embark helicopters, conduct research, transport weapons and other unique functions with a minimal crew size. We believe it could serve the U.S. Coast Guard and other customers, as well as the navy.

Another system we have developed is the Affordable Weapon. This is a missile that, when launched, opens up a pair of wings, flies downrange, and can loiter for hours before being called down to within a few feet of a specific target. This weapon costs roughly $100,000, in comparison to a cruise missile, which costs $1 million.

What is Titan's second business area?

Command, control, communications, computer, intelligence, surveillance, and reconnaissance – C4ISR for short – provides communications capability and intelligence gathering. Titan provides the communications systems necessary for military leaders to command and control military forces worldwide, connecting people all the way from the commander in chief to the soldier in the field. Thus, by providing communications systems and enabling intelligence gathering, we help the military to carry out its missions effectively. This is our largest area of expertise, and it's where most of our business comes from today. Products in this business area include a ground segment for satellite communications that can be air-, sea- or land-based.

We do a lot of intelligence work. Another of our transformational systems, called Prophet, replaces legacy electronic warfare systems that were developed more than 30 years ago. It is now the major army ground forces electronic warfare program. Humvee-mounted telescoping sensors provide 360-degree, early-warning protection and intelligence gathering for the army's maneuvering brigades. Prophet intercepts signals in a variety of frequencies and determines their line of bearing while the Humvee is on the move – a first for army ground-based signal-intercept operations. You can imagine the importance of that. We have developed, built, and deployed more than 100 of these systems, most of which are currently being used in Iraq or Afghanistan.

We also provide linguists who act as interpreters and translators for our military forces. Today, our 5,000 linguists – many in Iraq – fulfill a very important role in communications operations. We are meeting the increased demand for linguistic skills in activities involving national security.

What about your third business area?

Although Titan was in the Homeland Security business well before 9/11, the company has expanded in this area. For example, we build emergency mobile command vehicles and systems to provide primary and backup communications capability for government agencies such as FEMA and first responders. We provide very realistic training to help prepare first responders for a variety of potential ter-

X-Craft (top and opposite page). From concept design to launch, Titan delivered the X-Craft to the U.S. Navy in just 20 months. With a range of over 4,000 miles between refuelings, this unique, multi-mission catamaran – christened "Sea Fighter" – is capable of speeds in excess of 50 knots in calm waters.

tomer satisfaction, excellence in all we do, and respect for the individual have been the four cornerstones of Titan's core operating principles. Customers, employees, and investors deserve nothing less than absolute integrity.

But every large, diverse business will eventually face ethical challenges. Recently, we had our own problems resulting from international businesses that we no longer pursue.

Yet, the true test of a company's commitment to integrity is how it addresses a problem, however isolated. When Titan discovered such an issue last year, it promptly brought the matter to the attention of the appropriate authorities and accepted full responsibility for the consequences.

Titan has publicly demonstrated its strong commitment to integrity. We have expanded and reemphasized all of our governance programs, and hired a corporate vice president for ethics and compliance to ensure we have all of the right systems and procedures in place.

National security is at the forefront of many people's minds at the moment. Is this preoccupation reflected in your ability to attract talent?

One of our principle objectives is to attract and retain A-plus people. They are our most important assets. During 2004 we hired more than 3,000 people, which indicates how high a priority this is for us. The extraordinary growth of Titan is a direct result of the exceptional performance of our people. We have performed well on our contracts due to the dedication and hard work of our 12,000 people. That's why we've been able to win such a high percentage of competitive procurements.

We track major procurements very closely. In 2004, we won 13 out of 18 major procurements, each having a potential value of $100 million or more. Six of those awards were re-competes for work we were already doing, and the other seven represent new business. In almost every case, we were competing against corporations larger than ours. We have a phenomenal win rate. And the reason for that win rate is the performance of our people. Our industry measures how customers rate the companies with which they work, and Titan's overall grades are substantially better than the industry average.

When you founded The Titan Corporation in 1981, did you ever imagine that you would experience the level of growth and market penetration that you have, with revenues exceeding $2 billion a year?

We started Titan with the hope of building a major corporation, but we didn't know how successful we would become. I don't think I ever visualized revenues of $2 billion back in the early days of the company.

A great many people have worked with you over the years. What do you think they would say about your management style?

Well, I hope they would say I'm a forward-thinking leader, among other things. But Titan is more than just my leadership style. I am very fortunate that all of our business sectors have a strong, seasoned management team, and we have a capable board of directors that is actively involved. Titan is succeeding because we are visionary and focused on building a great organization. This has been one of our great strengths over the years.

Looking ahead, what challenges will you be concentrating on in the next few years?

The key challenge will be to maintain an environment within Titan that continues to challenge and motivate people to do an outstanding job. We need to continue to recruit and retain great people, and be sure to keep on the cutting edge of developments in the industry, so that we can provide our customers with the very latest technology.

Do you ever take the time to step back and appreciate the success that you have had, or are you always looking forward to the next challenge?

I'm much more excited about the future than I am about the past. I'm very excited about what we're going to be doing tomorrow. I get the most pleasure thinking about what we're doing today and what we're going to do tomorrow. ●

Launched by a small rocket booster and powered in flight by a small turbojet engine, Titan's Affordable Weapon can fly to a target area and loiter for several hours until directed to a specific objective by a forward observer.

rorist threats. We also train military personnel before they are deployed to Iraq. The training takes place in a Hollywood-type setting in the desert. Titan provided the secure nationwide video conferencing used by the Department of Homeland Security, and just last January we won a significant IT-services contract with U.S. Northern Command to support civil authorities addressing situations involving weapons of mass destruction and the war on terrorism.

is here to stay – that this is the world we now live in.

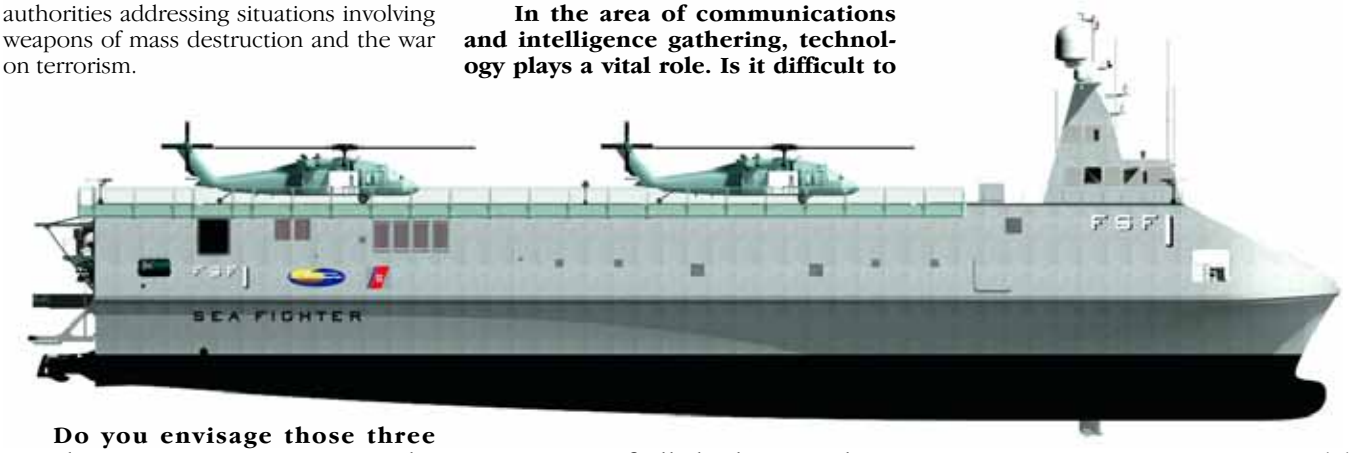
I foresee a time when the war against terror may not be completely over, but it will no longer be a major issue for this country. We will be proud to have helped bring this about. The world keeps changing, and we want to be prepared for whatever the challenge.

In the area of communications and intelligence gathering, technology plays a vital role. Is it difficult to stay on top of all the latest technological developments?

It's challenging and absolutely necessary. For example, we have a contract to provide all the information technology for the Special Operations Command. As most people know, the Special Operations Command is comprised of special-forces units from all of our military services operating jointly worldwide. As the first people in, they have a critical mission, particularly in the war on terrorism. We have almost 600 people working around the world to provide the very latest technology to enable those forces to communicate with one another. That includes systems built for voice, data, and video.

Are your business relationships mostly long-term or project based?

Our service businesses account for about 75 percent of revenues, and products and systems account for about 25 percent. Our service businesses generally involve long-term contracts, usually five years or longer. We have several long-term customers that we have supported for over 20 years. Last year, we won – in dollar value – 99.1 percent of all our existing contracts that were up for competition. This clearly reflects our customers' satisfaction, our long-term relationships, and our competitiveness. Customer satisfaction and winning contract re-competes are very important for maintaining our business base, but also for increasing it. We also just won a significant five-year procurement for the FAA's Mike Monroney Aeronautical Center, where we unseated a tier 1 prime incumbent.



Do you envisage those three core business areas remaining relatively consistent going forward, or are you planning to broaden your focus into other areas?

We see our core product and service areas remaining consistent for as long as the war on terrorism is a major issue for our country. Once we get through this period of increased terrorism threats, our business focus will definitely change. Until then, we will continue along the same lines. Much of what we are developing could have civilian uses.

Do you really think the United States will pass through this period of increased terrorism threats? There are some who believe that terrorism

Is the provision of national-security solutions a competitive industry? What makes Titan unique?

In a highly competitive industry, Titan Corporation was recently named as the ninth-largest government information technology company. In the defense sector, we were named as the sixth-largest company. We tend to compete with the larger companies for the larger procurements. In the last two years we have grown by more than 50 percent, and almost all that growth was internal. So we're holding our own very well against the larger companies with which we compete.

Several high-profile corporate-governance scandals have tainted the good name of the U.S. business community in recent years. How optimistic are you that integrity is now pervasive throughout U.S. businesses, and that public faith has been restored?

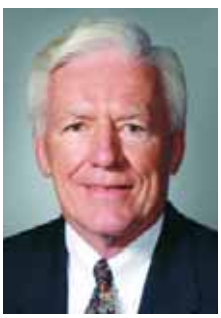
Every U.S. business has gotten the message that corporate integrity is non-negotiable. Ever since Titan opened its doors in 1981, corporate integrity, cus-

Titan's Affordable Weapon costs about one-tenth that of traditional cruise missiles and is built entirely from well-proven, off-the-shelf components.

Preserving a Set of Values

An Interview with Dr. Lawrence J. Delaney, Executive Vice President of Operations, and President, Advanced Systems Development Sector, The Titan Corporation, Reston, Virginia

EDITORS' NOTE *Prior to joining Titan, Larry Delaney was chairman of the board, CEO, and president of Areté Associates and president of the Delaney Group, a technical and business consulting firm he founded in 1997. Delaney has served as acting secretary and acting undersecretary of the U.S. Air Force, assistant secretary of the U.S. Air Force (acquisition), and chairman of the National Academy of Science's Air Force Board on Science and Technology, and vice chairman of the NAS board on army science and technology. Delaney graduated from Clarkson University (New York) with bachelor's and master's degrees in chemical engineering, and from the University of Pennsylvania with a Ph.D. in the same discipline.*



Dr. Lawrence J. Delaney

SECTOR BRIEF *Titan's transformational programs such as X-Craft; Prophet; Affordable Weapon Systems; KaSAT communications satellite terminals; communications-on-the-move antennas; and WSQ-9 submarine defensive systems all emphasize capability-based systems that enhance speed and agility in network-centric operations.*

What services does your sector provide in the area of transformational systems?

Transformational systems constitute an important area for Titan, and for the Advanced Systems Development Sector. The U.S. Department of Defense is in the process of transforming itself, and is introducing new ideas to meet 21st-century threats. During the Cold War, the country needed large, fixed, immobile assets that were designed to meet a force of equivalent size and structure. Now, however, with the asymmetric threat embodied by terrorists, it needs a much more mobile, more rapidly deployed, flexible force that has intelligence assets and communications networks as its operational center of gravity. The federal government is looking for new ways of using existing platforms during this transition period, and we are involved in that process.

We also focus on creating new systems and platforms, bearing in mind the new concepts of operations and the new doctrine. Titan seeks to find those areas that have the most leverage in effectiveness through the application of technology and information networks. So the first thing we do in this area is establish our convictions. One conviction that is deeply embedded in the culture of Titan is that weapons systems cost too much, and they take too long to get into the field. Accordingly, we try to design systems that will have the same effect on the target as the current day's systems, but do it for a fraction of the cost. In some cases, we aim to do it for one-tenth of the cost; in other cases, it may be one-fifth. We use systems analyses, operational concepts, and design capabilities to try to get these kinds of systems into the field faster.

Do you think the government is on the right track in its efforts to transform the military? Are the current changes supported by constituencies across the board?

Secretary of Defense Donald Rumsfeld has kept his eye on the transformation ball despite the enormous day-to-day pressures he comes under. He has introduced a way of thinking that is defined by the belief that no single service is going to win anything by itself. With this in mind, he has rotated the major combatant commanders and the forces deployed overseas, and in the U.S., he has broadened the participation of individuals.

I think there is strong support for what he is doing, but there's always resistance to any type of change. Transformation is about changing more than just weapons systems; it's about changing the way people think about fighting, their concepts of operation, and their cultural understanding of the potential enemy.

Is technology a key enabler in your sector's operations?

It's at the heart of the way we conduct business. But although it's critical to our work, technology is only part of the answer. We have to marry technology with engineering capability, and the technology we use needs to be built upon a sound understanding of operations.

Has Titan succeeded in keeping the talented professionals who came with the businesses it has acquired?

Yes. We've gotten very significant leverage from our acquisitions. Many of Titan's eight operating sectors are currently headed by people who were leaders in companies that we acquired. We've had leading scientists and engineers working with us for a long time. In addition, we pay a lot of attention to mentoring new people. There is significant mobility in the defense industry, so we've been able to attract people who have made their mark with other major defense contractors. They particularly like the Titan environment because of its collegiality and cross-sector cooperation. So we've been very fortunate in being able to attract leading people from other companies in the defense industry.

How important is it for you to maintain direct contact with clients?

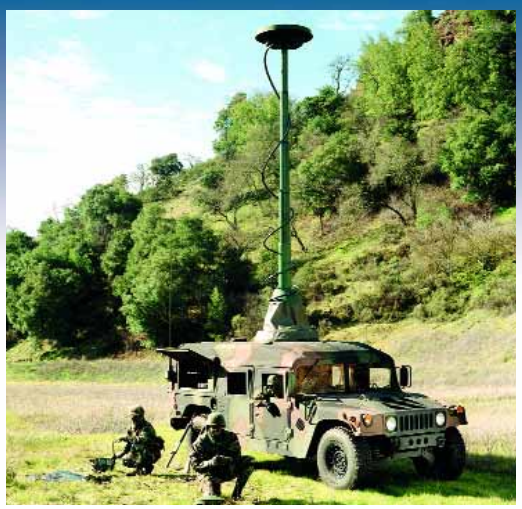
Since I'm president of an important sector, as well as executive vice president representing the corporation, my contact with customers is generally focused on showing customers their potential, and letting them know how they can do things better, faster, and cheaper.

You have been an industry leader for many years. Does your work still hold excitement for you when you get up in the morning?

I don't think there's anything more important. According to the U.S. Constitution, the most important thing the federal government does is provide for the defense of the country. I firmly believe that this is noble work that we do. After all, we're in the business of preserving a set of values for succeeding generations. So I think I'll be working in this area until I can't work anymore. ●

Titan's KaSAT systems will be the first tactical terminals to communicate over Wideband Gapfiller Satellites – thus ushering in a new era of satellite communications.

High-Performance Support



An Interview with Earl Pontius, Senior Vice President and President, Technical Resources Sector, The Titan Corporation, Billerica (Metropolitan Boston), Massachusetts

EDITORS' NOTE *After serving as a career officer in the U.S. Air Force in executive and key staff positions in operations, systems acquisition and intelligence, Earl Pontius joined Horizons Technology in 1986, holding positions of increasing responsibility, culminating as president. He joined Titan Corporation when that company acquired Horizons Technology in June 1998. Pontius holds a B.A. degree from Indiana University, an M.B.A. from Harvard Business School, and has completed Northwestern University's Senior Executive Program.*

Earl Pontius

SECTOR BRIEF *The Technical Resources Sector is the primary Titan organization responsible for U.S. Army, Air Force, and Federal Aviation Administration business, providing technical support to the acquisition and operation of command-and-control, communications, intelligence, and surveillance systems. Operational analysis, training, and linguist services for the homeland security community and global war on terror are also important business areas for the sector.*

How close is the coordination between the Titan business groups ?

I haven't seen another company work as closely together as ours. The sector presidents have very close business and personal relationships, and I see this as one of our main strengths. We motivate all of our people to work closely together. Several years ago, when we were struggling with how to grow faster, we realized that we had to cooperate closely or we would not be able to win the larger contracts. So that's how we developed this approach, and we have stuck to it.

How competitive is your segment of the business? Is it difficult to differentiate?

It has become more competitive as the emphasis has shifted to services. Our customers are not building the big weapons systems now. Instead, they are updating existing systems. An increasing amount of work is going into networked operations of these systems and into support services – program management, engineering, and so forth. This used to be mainly a small-company industry. Then midsize and large companies trying to take advantage of this growing market acquired many of these companies. Now, even the large systems companies have separate service divisions competing for these programs.

We place a great deal of emphasis on superior performance, which leads to solid customer relationships and superior past performance scores. We spend a lot of time on management processes, because we manage large teams of people on highly complex tasks. And our customers want visibility into schedule, cost, and other performance metrics, so at any instant they can see what they're getting for their money. We've done a really good job in this regard, and this has also become a key differentiator for us.

What kind of talent is Titan attracting to the business?

We tend to attract more older talent than younger talent, because we are not concerned with developing new products. So, rather than looking for young people with the latest high-tech skills, we look for subject-matter expertise. We want the graybeards who have been around a long time and who thoroughly understand the systems-acquisition process, as well as the systems we are helping the government to develop. We also provide interpreters and translators, where age is not a factor. We just look for people with the language skills and cultural knowledge to interpret and translate accurately.

Is the translation and interpretation area a growing business for you?

It has rapidly become a worldwide business for us. We currently have over 5,000 linguists in 18 countries supporting the U.S. Army and other government agencies. In places like Iraq, it is important to be able to understand what the local people are saying and to be sure our soldiers are understood. Linguists have become a true force multiplier for the army. In addition to the military, there are many government agencies that operate overseas and need linguist support and there are other agencies in the U.S., such as the National Security Agency, that use contract translators.

How has technology changed warfare communication?

Whereas in the past, we prepared to fight large armies with tanks and other weapons, now we have to be able to fight small units using a lot of the same technology but in different ways. After these units are located, the complete battle picture needs to be displayed in a usable form, so that commanders can rapidly make decisions. Since 9/11, the mission of protecting the homeland has changed significantly from the Cold War era. In this regard, we have been involved in helping the government set up a system that will maintain constant air surveillance over the entire United States. There is a wide array of transformation initiatives going on across all of the armed services, and Titan has made a valuable contribution in helping the government follow through on its plans.

Acquisitions have been a driver of growth for Titan. How difficult is it to streamline the culture of the company after a major acquisition?

I was president of a small company, and I joined Titan through its acquisition. At that time, a number of other acquisitions were coming into Titan, and I was asked to form a group out of four of those companies. They were operated as wholly owned subsidiaries for a short period, and then they were integrated into the company structure. With regard to meshing the different corporate cultures, when Titan considers a company for acquisition, culture match is a key consideration. So we thought we would be able to smoothly integrate these companies, and that turned out to be the case. ●

Developed and built by Titan, Prophet – a mobile ground-based tactical intelligence system used by front-line U.S. Army combat forces in Iraq and Afghanistan – provides an electronic real-time picture of the battlefield and early warning of imminent threats.

New Security Challenges

An Interview with A. Anton Frederickson, President, Applied Technologies Sector and Senior Vice President, The Titan Corporation, Reston, Virginia

EDITORS' NOTE *Tony Frederickson began his career serving in various technical positions with California Research and Technology, which was acquired by the Titan Corporation in 1987. From 1989 to 1995, when he rejoined Titan, he served in various technical and management positions in the U.S. Department of Defense's Defense Nuclear Agency (now the Defense Threat Reduction Agency). An alumnus of the national security program of the Kennedy School of Government at Harvard University, Frederickson graduated cum laude from the University of California (Los Angeles), where he earned B.S. and M.S. degrees in mechanical engineering and applied mechanics, respectively. He was appointed to his current position in 1998.*

A. Anton Frederickson

SECTOR BRIEF *The Applied Technologies Sector provides diversified R&D, technical services, and systems-integration products serving the national-security interests of the U.S. Department of Defense, the national intelligence community, and many non-defense federal agencies.*

What products and services does the Applied Technology Sector offer?

This is a very diversified sector. It is comprised of what I consider much of the "original Titan," augmented by several acquisitions. This sector has a legacy of strategic weapons programs, and we've found that these competencies map pretty well to address today's threats, particularly counter-terrorism. For instance, continuity assurance has always been one of our major thrusts. This involves helping government departments to prepare for catastrophes. While our legacy focus was the aftermath of nuclear war, the motivation now is assuring operations following a catastrophic terrorist incident. We've worked with 14 of the 15 government departments, helping them put their continuity of operations plans together – equipping and training them to continue to operate after a major incident on a contingency basis in the face of a warning.

A second focus area for us is advanced technology applications. One example is pulse power, which simply stated is the harnessing of electrical energy, first storing large quantities of energy, then precisely releasing that energy at very high voltages and currents. Pulse power applications include laser systems for fusion research, high-power microwave systems for nuclear-weapons simulation, and electron beam and X-ray systems for protecting the U.S. mail from anthrax letters.

Our third focus is serving the intelligence community. This was very important during the superpower confrontation, and it is very important today, although the adversaries are, of course, different. If you look at the homeland-security mission, it's clear that intelligence plays the key role in preventing terrorist attacks.

What are the principal defense requirements in the area of homeland security?

Homeland security requires a multilayered defense. It starts with intelligence and its relationship with the law-enforcement community and the military – for example, in the interdiction of terrorist cells overseas and the global war on terrorism. That's the outer layer, if you will. Then, there's border and transportation security, which involves preventing weapons of mass destruction and undesirable individuals from entering the country. After that, there's infrastructure protection, which involves identifying what the likely targets are and developing protective measures. Finally, there is the issue of emergency preparedness that I mentioned earlier, including emergency response, continuity of operations, and incident recovery.

Titan may not be well known to the general public in the area of homeland security, because we're not dominant in any one of these areas, but we do play across all of them. That makes us pretty unique.

Did your approach to business change after 9/11?

This is another thing that makes Titan unique. After the 9/11 attacks, we asked ourselves, should we reorganize? Should we create a homeland security sector and really focus on that area? But that discussion lasted about 10 minutes, as we soon realized that we were facing a very diversified threat. We've always been proud of how we work together, and we're able to be much more effective by remaining organized around our current competency areas and collaborate to bring the appropriate scope to bear on the issues.

We have acquired companies into a culture that feels a bit like a growing fraternity. The leaders of the new companies that come aboard are usually delighted to have access to capabilities in the adjacent sectors. This is something that [Chairman, President, and CEO] Gene Ray has worked very hard on. No one could ever doubt that this is high on his list of objectives: to get all the different teams working closely together.

What changes have you seen in the job applicant pool recently?

I think that 9/11 was a bit of a rallying cry. As the Cold War wound down, the sense of national peril dissolved and the defense industry atrophied somewhat. It's a different environment today. Job seekers seem to bring a little more nationalism to the interview, and patriotism is playing a part in career choices again.

You left Titan in 1989, only to rejoin the company in 1995. What made you leave and then go back?

In 1989, I thought three years or so in government would be a useful career-development move, as I could learn how the Department of Defense operates. It was very rewarding and exciting. However, six years was enough to gain the experience I was looking for, and I began to feel put-off by the bureaucratic part of government service. So when the opportunity to return to Titan presented itself, I jumped. ●

Titan builds Mobile Operation Centers – stand-alone emergency operations vehicles. Titan has delivered 22 vehicles of various sizes and configurations to the Federal Emergency Management Agency, which uses them to respond to national emergencies – whether they be natural or man-made.