An Integrated Approach for a Revitalized Nuclear Deterrence Mission

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The nuclear security enterprise is evolving. The administration and top Department of Energy (DOE) leadership have made it clear; a modernized robust, flexible and resilient nuclear deterrence enterprise is required to match 21st century threats.

Drawing on 50 years of complex technical leadership in the nuclear space, Leidos is prepared to meet this new enterprise head on by leveraging integrated management capabilities and forward leaning technologies to ensure the country's nuclear stockpile and infrastructure are modern and resilient. Founded in 1969 by nuclear physicist Dr. J. Robert Beyster, the company's first contracts were with the Defense Atomic Support Agency. Today, Leidos has a diverse and global portfolio and focuses on optimizing customer missions, accelerating schedules, and maximizing savings, all of which are valuable in the evolution of the nuclear security enterprise. Leidos is poised to address new work required under the 2018 Nuclear Posture Review. Released in February, the document calls for recapitalizing the nuclear weapons complex of laboratories and plants to make them more secure and facilitating the necessary progress towards sustaining the nation's nuclear deterrence and non-proliferation plans.

Liz Porter, senior vice president of Leidos' federal energy and environment portfolio, says Leidos appreciates the commitment set out by the DOE, the Department of Defense and the administration, and outlines how her organization's experience in maximizing efficiencies aligns with this vision.

"The compelling commitment by the administration to nuclear deterrence and its importance to global safety, as well as the recognition that a revitalization of the infrastructure, facilities and labs to uphold that commitment, was a significant basis for Leidos saying 'that's what we do," Porter said. "We are here to help solve the world's toughest challenges. And clearly this is one of the world's toughest challenges."

Leidos is primed to meet the complexities of facility operations and integrated capability management with its breadth of experience providing services to over 80 percent of U.S. federal agencies. Specific to the nuclear enterprise, Leidos has more than 40 years of experience and participation in providing technical and programmatic services to nuclear weapons stockpile and the nuclear non-proliferation programs.

“The uniqueness of what Leidos brings in that regard is that we are the largest single technology services provider to the U.S. government,” Porter said. “We can, from that relationship, leverage our core competencies and capabilities across information technology, science and engineering.”

Porter said Leidos management integration approach has proven a valuable solution for critical programs across the globe and even beyond.

“Leidos is the only government contractor with multi-faceted facilities, management and logistics programs that extend from programs in the Antarctic to the International Space Station and back to nuclear deterrence,” Porter said.

In 2012, Leidos headed to Antarctica. The National Science Foundation tasked Leidos with managing the world’s longest supply chain, building airfields in the harsh ice and snow, maintaining ice-breaking vessels, and managing critical research facilities for the United States Antarctic program.

Leidos’ commitment to the science and engineering space focuses on a mission to ensure scientists are able to maximize the research efforts to the fullest extent in the coldest of conditions.

The company’s work consists of oversight of management operations, support of significant logistics and getting supplies down to the bottom of the world, and revitalizing infrastructure as the increasingly complex science experiments and projects required new facilities.

Beyond its focus on facilities and operational management, Leidos extends its holistic integration approach to people; offering training programs to ensure accountability across all teams.

Leidos is currently building a training program for the Afghanistan Air Force, working with military officials to provide mentoring for operating and maintaining their helicopter and fixed-wing fleets. The company is responsible for training between eight to 12,000 personnel by 2023.

“It’s a significant demonstration of our ability to handle a large-scale responsibility on a global context, and provide value to a critical mission from a management operations standpoint,” Porter said.

This expertise and wide-ranging set of integrated offerings is on full display with Leidos’ Mission Support Alliance contract that provides services for revitalizing the Hanford Site, the massive 580-square mile complex that for decades manufactured large quantities of plutonium.

Leidos is the managing partner on the Hanford support contract, providing critical infrastructure support, environmental sustainability and transportation services to ensure the

decommissioning process results in a successful cleanup and realized cost savings. The company provides water systems, power distribution, road maintenance, fleet and transportation services, land management, highly-specialized rigging, security and emergency response, national training services, employee payroll and benefits administration, telecommunications, IT and cybersecurity, and environmental sustainability.

Since Leidos began work at the Hanford Site in 2009, the company's work has resulted in a 53 percent reduction of the warehouse operations cycle time and a 31 reduction in DOE's contract work order processing time at the site. Leidos has also contributed to a 55 percent reduction in the fleet services cycle time, a vital improvement since the ability to maintain the fleet of all the trucks, forklifts, all the equipment used for the moving of materials is paramount to the cleanup mission.

The full scope of Leidos' ability to provide the DOE and National Nuclear Security Administration (NNSA) with a fundamental management integration approach is its work as a minority partner on the Consolidated Nuclear Security (CNS) effort at the Y-12 and Pantex facilities.

CNS focuses on merging management efforts between Y-12 National Security Complex, where nuclear processing is performed, and the Pantex Plant, the facility that handles assembly of nuclear deterrent warheads.

"That was done to provide an opportunity to demonstrate the value of integrated management, in terms of providing a more enterprise approach and common standards and techniques between the two facilities," Porter said.

Leidos, in this work, has shown an ability to contribute to more cost and time effective operations. Under its work with CNS, Leidos has helped lead the realization of more than $300 million in cost savings to date.

On the operations side, Leidos is handling reliability maintenance, project construction revitalization, mission engineering, enterprise integrated planning and supply chain management. The program has also stood up a new material acquisition and control center (MAC) to build an improved materials inventory process and better leverage vendor-managed inventories. The new center also incorporates integrated procurement by working with the other sites across the enterprise to optimize buying of materials and reducing costs. Ultimately, Leidos was able to improve the processing cycle time for equipment coming through both facilities.

"That's a significant achievement. It has given us a lot more flexibility and efficiencies in sustainment," Porter said.

In all, Leidos can deliver a core commitment to DOE and NNSA based on data science and engineering, secure development in operations, and fundamental systems engineering and integration.

“Data science and engineering are directly related to the needs of the Nuclear Posture Review requirements and the expectations of what’s going to be needed over the future years. The securing of development operations is how we’re going to produce outcomes. We’re able to develop new processes, new systems, new tools, new training, new workforces to be able to sustain the operations,” according to Porter. “You have to have a systems engineering approach that is integrated in a management approach to be able to make those consistent and enduring. And that’s the approach that Leidos is taking. That’s the reason we believe we are offering full capabilities in a management integration approach.”

There’s a bright future in nuclear enterprise space, Porter said, with Leidos focused on walking towards those opportunities as others seem to be walking away.

“In broad terms, some companies have walked away from this opportunity from two different perspectives; the complexity and their ability to meet the technical challenges. They didn’t have the breadth and alliances of a company like Leidos. And secondly, from a business standpoint, some companies perceive this as not meeting the margins that they wanted to achieve,” Porter said. “Leidos, on the other hand, is taking the position to say we do embrace these types of challenges. We say this because of the confidence in our capabilities and the demonstrated results on a broad, complex global level.”

This vision extends to a core commitment of helping the U.S. government progress ever forward towards a world of non-proliferation, an area Leidos has long made its mark.

“While we are heavily involved in support of ensuring the nuclear deterrence is sustained, we are equally involved and committed to supporting the realization of non-proliferation and have been for more than 30 years with our government and our allies,” Porter said.

The administration and DOE have made clear that the revitalization of the country’s nuclear facilities and holdings remains a critical challenge that will require integrated solutions to realize significant goals. Leidos is here to reach those goals.

“We know we can perform this work. We know we can contribute to this mission. We know we can deliver results, and more importantly do it efficiently,” Porter said.

19-Leidos-0131-20426