

LEADERSHIP Profile By DAVID SILVERBERG

FOR MARY PETRYSZYN (PRONOUNCED PET-TREE-ZHAN), RAYTHEON'S VICE PRESIDENT OF INTEGRATED DEFENSE SYSTEMS' JOINT BATTLESPACE INTEGRATION BUSINESS TEAM, HOMELAND SECURITY EXTENDS FROM THE GROUND TO THE OUTER REACHES OF SPACE—AND IT'S A RESPONSIBILITY THAT HAS MADE HER PASSIONATE ABOUT WHAT SHE DOES.

In her portfolio is the company's Project Athena, a multi-domain awareness system that can take real time information from satellites, databases and intelligence sources and put it all together to give decisionmakers the picture they need.

"A lot of the equipment that we deliver to [the Department of Defense] we, as employees of the company, don't have an opportunity to see in use," she recalled. "I did have the wonderful opportunity to go aboard the Nimitz aircraft carrier during some sea trials [in 2001] where we had delivered some combat command and control equipment and get to see that equipment in action against targets that were put there to determine the accuracy and capability of the equipment that was aboard.

"But the most interesting thing for me being there was to be on board the ship with the people who were out there using this equipment every day in harm's way and be able to interact with them and hear their stories about why they were there and doing what they were doing, and that just helps energize me to come back and do what we do and deliver these capabilities on a regular basis."

DUTIES AND RESPONSIBILITIES

Petryszyn's portfolio is an interesting mix of technologies and capabilities with foundations in both homeland security and defense.

She focuses on five areas: Multidomain awareness; wide area surveillance; space situational awareness; critical infrastructure and chemical and biological protection; and the Advanced Spectroscopic Portal (ASP).

The ASP, an advanced screening portal designed to detect radiological material, is one of Raytheon's most cutting-edge efforts.

"Developing and fielding ASP is allowing us to take to another level the security of our borders by putting a much more capable system out there to scan cargo containers for illicit nuclear threat material," Petryszyn pointed out.

One of the most non-traditional projects is occurring in outer space. Raytheon won a small contract to work on a pilot program to help track and identify space objects and debris that might damage US satellites.

"Space isn't an area that you normally think about when you think about homeland security or homeland defense," she pointed out. "But the assets we have in space as a country that allow the kind of communications and passing of information that we enjoy today is a pretty critical component of our homeland security. It's been fascinating for me to get involved in that area."

The newest thrust for Petryszyn and Raytheon is in critical infrastructure protection, along with chemical and biological detection. In synthesizing Athena, wide-area



MARY PETRYSZYN
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Homeland
security from
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surveillance and re-locatable over-the-horizon radars, camera feeds and infrared and electro-optical sensor information, Raytheon is now in the forefront of homeland security integration.

"I think one of the things that's continuing to be very critical is the speed with which these solutions need to be delivered," she observed. "They need to be kept affordable, and that's how I think the leverage that we can gain from some of these developments that we've done in the DoD marketplace and transitioning those capabilities into these other areas can be done in a very affordable way."

LOOKING FORWARD

The person pulling all this together is an electrical engineer, a graduate of Clarkson and Syracuse universities. She started her career in 1986 in the simulation industry at the venerable Link Systems, the originator of flight simulation.

Since then, Petryszyn has moved upward even as the companies she served merged and consolidated, each shift of the tectonic plates raising her higher: From Link, where she worked on the B-2 bomber simulator, she went to Hughes Aircraft, which had purchased Link, then to Raytheon in 1999, which purchased Hughes.

Beginning in 2005, Petryszyn moved out of satellite communications and into integrated systems, where she served as the strategy officer, determining new directions and businesses and finding gaps in homeland security where existing and emerging technologies could be leveraged to provide new protections.

That has also meant that Petryszyn has had to learn a new customer base with new requirements—which has given her considerable respect for those on the front lines.

As for the future, Petryszyn observed: "In 2007, we're going to continue our push in addressing this global war on terror that has been consuming a lot of energy here for the United States. We're going to continue to leverage our domain knowledge and expertise into these areas so that we can help our customers achieve their missions." **HST**