

Panelists Discuss Challenges in Navigating Space as a Warfighting Domain



Space may have been the final frontier for the Starship Enterprise, but it's the current frontier for the world's fighting forces. As nations race to conquer this military high ground, the U.S. Department of Defense and private industry are increasingly working together to ensure American warfighters' place in space now and in the future.

During the Monday afternoon panel, "Space: The 5th Warfighting Domain," four representatives from the military and industry discussed the following questions from moderator Theresa Hitchens, a reporter with Breaking Defense, and audience members.

We've heard a lot about how the threat environment is

changing. What keeps you up at night in that regard?

VADM Jeffrey Trussler, USN, deputy chief of naval operations for information warfare, N2/N6, Office of the Chief of Naval Operations/Director of Naval Intelligence, said he's concerned about both the expanded use of the RF spectrum and China's efforts in space.

Because the Navy is reliant on RF, it needs to look at the best ways to use the RF spectrum as the space layer proliferates, he said.

Meanwhile, China has made its intentions for space supremacy public knowledge, and that's earned the attention of the Department of Defense.

"I've never seen a department more focused on an adversary and what we need to do," Trussler said. "The work we're doing in space, we're going to move out and move out fast."

Derek Tournear, PhD, executive director, Space Development Agency, discussed resiliency. His company launched 10 satellites on Sunday as part of its effort to put hundreds of small satellites in the sky rather than a few large ones that are easier to shoot down. Tournear said Space Development Agency is also concerned about common mode failures, especially cyberthreats, RF spectrum threats, and supply-chain threats.

Steven Butow, director, space portfolio, Defense Innovation Unit, said from a commercial standpoint, economic security and national security are intertwined. That makes it important to work across all levels of government for financial stability.

How do you deal with overclassification?

Butow said an argument can be made that moving fast is more effective than locking down information for long periods of time.

“Industry knows how to lock down information, but also how to release it and commoditize it,” he said.

Ed Zoiss, president, space & airborne systems, [L3Harris Technologies](#), said a private company can be a matchmaker when its customers are working on similar classified technologies.

Trussler believes the problem isn't just overclassification. “Even our simple acquisition processes give information to China,” he said. “It's about how we share information and doing it right. It's not as simple as overclassification.”

Tournear made the case for selectively releasing information. “We can't deter if can't talk about it. Thirty years ago, we couldn't say ‘national reconnaissance office,’ but the Soviets already knew we had it,” he said. “We need to make sure we know what we need to protect, but also talk about what we're doing so there's a deterrence factor.”

LEO (low earth orbit) has thousands of satellites. How concerned are you about debris, signal interference and collision?

“Two thoughts: Space is congested, and space is big – it depends on the orbital regime,” Tournear said. There can be unintended consequences to mitigating congestion, but he believes that policies that promote being a good steward in your orbital slot can be effective.

Butow pointed out that there are more planes in the U.S. airspace than satellites in LEO, but the planes are regulated. That's why he thinks it's important that a space traffic commission be formalized and adopted on a global scale.