The Importance of Space to U.S. National Security

Breakfast Briefing Sponsored by the Aerospace Industries Association

On September 28, 2010, the Aerospace Industries Association held a briefing to discuss the role of space in national security, with particular emphasis on the health of the space industrial base. Marion Blakey, President of AIA, framed the discussion by saying that changes in policy alone will not protect the industrial base, but that other elements, including strong leadership, integrative strategy, and stable funding, are also needed. Ms. Blakey also released a new AIA report titled Tipping Point: Maintaining the Health of the National Security Space Industrial Base dealing with this very topic.

Keynote Speech

Dr. James N. Miller, Principal Deputy Under Secretary of Defense for Policy, who delivered the keynote speech, described the landscape as one of "major challenges and major opportunities" and emphasized the "three Cs" used to characterize it: contested, congested and competitive. Dr. Miller drew attention to what he described as a "real and growing" spectrum of threat in space, from actors that include China – with demonstrated anti-satellite capability – as well as Iran, Iraq and Libya who have engaged in communications jamming.

The upcoming National Security Space Strategy, which he said is in "the final stages of development," takes off from elements introduced in the National Space Policy to address these and other critical points. Among its priorities, Dr. Miller highlighted:

- Defining and reinforcing norms of behavior in space. This would be accomplished through a variety of means, including international engagement and declaratory policy.
- Preserving selective interdependence. The United States relies on commercial partners and international allies to reinforce critical functions; "government-only and U.S.-only is not gonna work," said Dr. Miller.
- Defending and deterring aggressive action, and, if necessary defeating attacks on U.S. space assets. We have to be "smart about how we do this" since the "United States has the most to lose," he said.
- Investing to improve our competitiveness. This includes looking for 80% solutions rather than exquisite systems, and addressing export control reform,.

Dr. Miller concluded by saying that the strategy would reflect a comprehensive approach to dealing with the changing space environment, not only through policy, but also through investment, cooperation within government, and engagement with industry and with other responsible international actors in space.

By Laura M. Delgado

Panel Discussion

Following Dr. Miller's remarks, panel members commented briefly on the unique and critical role played by space assets in all aspects of national security. Brett B. Lambert, Deputy Assistant Secretary of Defense (Industrial Policy), summed it up by saying: "we can't operate without space." The discussion focused on a reflection of what makes the space industrial base and the acquisition process it is subjected to both unique and problematic, and suggestions to move forward.

Lt. Gen. Henry A. "Trey" Obering III (USAF, Ret.), former Director of the Missile Defense Agency and now Senior Vice President of Booz Allen Hamilton, Inc., identified a number of challenges threatening both the industrial base and the ability of the defense program to have its needs met. These include: a "sense of congestion" in the decision-making process coupled with a decentralized leadership structure. These are two elements that force decisions to take longer and that do not easily allow for concentration of efforts. In a similar fashion, the costs associated with space systems drives decision makers to "pound everything we can on [to] these platforms," which, when added to "technological optimism" from industry, increases the probability that costs will increase because work comes to a standstill while awaiting a solution to a technical problem.

Mr. Steven R. Miller, Division Director of Advanced Systems Cost Analysis in the Office of the Secretary of Defense, drew a comparison between today and the 1990s, where declining budgets were also the norm, He said that in the past the United States had a "significant inventory of satellites" that is missing now, meaning that there is little room for error. Proposals to move forward must then consider both the "unforgiving" nature of space systems, and the "fragility" of the industrial base specific to this sector; the "infrastructure [of the industrial base] is intellectual capital…it takes a long time to reconstitute it" he added. In developing new acquisition processes and strategies, he urged that models that have worked in the past be considered.

Mr. Lambert echoed comments made by the previous speakers that the space industrial base is very different because it takes much longer to get a program through the acquisition cycle, and because industry has long lead times to get through production. He added that because problems that come up early in this long process can have costly implications in the long run, "the right answer up front makes a huge difference." One of the issues that needs to be fixed is export control reform, which Mr. Lambert described as "critical." He said that his goal in life is to "not have a folder given to me at an air show that says 'we're ITAR free' from a foreign competitor," alluding to the advantage used by foreign providers that do not have to comply with the long and costly requirements under existing U.S. export control rules.

Responding to a question about the impact of cost-growth and delays on acquisition and spending credibility, General Obering said "schedule is everything…[it] drives everything." To reduce cost and schedule delays, he said program managers must focus on requirements and use resources to drive down technical risk early in a

program. Such a strategy requires accepting that every requirement may not be met with the first version of a spacecraft, but will allow programs to be broken down into "smaller chunks." Mr. Lambert added that cost-growth is often driven by not "moving things to the left" and suggested that long term, time-consuming, solutions no longer can be the norm. Stephen Miller concurred that systems must be delivered "on time and on cost," simply because "we don't have the satellites in the barn anymore" to provide insurance.

Panel members also emphasized the need to focus on second and third tier suppliers on which the rest of the industrial base often depends, and identify what General Obering described as these "inverted pyramids." In this respect, civil agencies, which also draw on the same industrial base, must also be included in the discussion. Mr. Lambert congratulated the Obama Administration for "working holistically" across agencies in looking at this issue.

As the briefing came to a close, Ms. Blakey added that while this debate reiterated that "this is a tipping point" for space industrial base policy, there are a number of options to address the issues, making for "exciting prospects for acquisition reform."