SELECT COMMITTEE ON INTELLIGENCE

UNITED STATES SENATE

Post-Hearing Questions for Dr. Christopher Scolese upon his nomination to be Director of the National Reconnaissance Office

1. As it relates to small satellites, what policies did you modify at NASA to accommodate rapid acquisition of small satellites?

One of my first priorities as Director of the Goddard Space Flight Center was to invigorate the smallsat development capabilities of the Center. This included assessing our current capabilities; establishing new development processes to accommodate low cost, rapid development smallsats; and establishing an internal research and development portfolio focused on miniaturizing instrumentation for use on these platforms. I established a smallsat office at the Wallops Flight Facility to coordinate all Goddard smallsat development and procurement efforts to leverage proven processes and capabilities for rapid development and deployment of suborbital missions. Further, we pursued partnerships with universities and industry to leverage resources, capabilities, and technologies to develop and launch compelling tech demos and science missions. As a result, we have been successful in delivering new sensors to orbit to observe space environment conditions, and we have ongoing development efforts to enable new space weather capabilities, including constellations. For these new missions, Goddard implemented a streamlined partnering approach for competitive opportunities to select a spacecraft vendor or instrument partner that resulted in a rapid acquisition upon mission selection.

2. NASA Goddard has struggled to keep the James Webb Space Telescope on schedule and on budget. What lessons have you learned from your experience managing the Goddard's acquisition of the James Webb Space Telescope that you could apply to the NRO?

A significant lesson I have taken away from my experience with the James Webb Space Telescope is the importance of understanding the maturity of new technologies prior to approving a program of record. This can be best achieved when the leadership and the team starts with clear requirements documents that enable the team to map the mission requirements to the required technologies and technical solutions. This allows the developing organization to drive research and development investment and ensure proper accounting of development risks. Once all risks are well understood, it is important to establish a program budget and secure a funding profile commensurate with these risks.

If confirmed, I will bring these lessons learned to the National Reconnaissance Office and will provide updates to the oversight committees as needed to ensure an informed dialogue.

3. The NRO's relationship with NGA is an especially important one. If confirmed, how do you understand the line of demarcation as it relates to development of value added data services, and what steps will you take to improve communication, coordination, and collaboration between the NRO and the NGA?

I agree with you that the National Reconnaissance Office's (NRO) relationship with the National Geospatial-Intelligence Agency (NGA) is critically important; in fact, I see it as a partnership vital to our national security. Through my career, I've partnered with, and worked across, diverse user communities with disparate requirements. As a result of these experiences, I place a high priority on understanding partners' needs throughout the conception, development, and operation of a system. I also recognize the importance of consistently and candidly communicating progress to partner organizations so that adjustments can be made to ensure that operational performance satisfies user requirements within technical, cost, and schedule constraints.

It is my understanding that the National Reconnaissance Office is responsible for acquiring commercial imagery to meet Intelligence Community (IC) and Department of Defense (DoD) intelligence requirements, which are defined by the geospatial intelligence functional manager. If confirmed, I would expect to work closely with IC and DoD partners to determine who is best positioned to acquire any value added data services based on the requirement.

If confirmed, I look forward to working with the NGA Director to ensure that the capabilities developed or procured by the NRO are responsive to the needs of the NGA, IC, and the DoD user communities.

4. Anti-satellite Capabilities

Recently, India conducted an anti-satellite missile test, and claimed it demonstrated the capability to shoot down and destroy a target in space. India's anti-satellite test highlights the dangers in a race for space access and superiority. I am concerned that as the number of nations with such offensive space capabilities grows and the capability becomes more standard, the threats to U.S. civil and military space capabilities will increase. Contested and congested space, proliferating debris, and vulnerabilities in our space assets all pose critical challenges to our national security.

a. What concerns you most about our adversaries' space developments?

Space is becoming a more competitive, contested, and congested environment. The threat environment is evolving and other countries are developing capabilities that approach those of the U.S. We are also under an increasing threat from both physical attack and cyber attacks. Our space and ground systems must be secured and protected in order to maintain control of our satellites. It is critical to sustain investments in technology such that we can maintain our strategic advantage in space and leverage capabilities provided by the commercial sector and international partners.

If confirmed, I look forward to receiving more information on this topic to better understand the depth and breadth of adversary space systems that are intended to counter the National Reconnaissance Office’s current and future capabilities.

b. What is needed today to ensure our space assets are protected five years from now?

Overall, I believe the United States is still the leader in space exploration and in overhead reconnaissance. To maintain that strategic advantage for the nation, we need to invest in technologies that will continue to enable the most effective systems in the world, and we must leverage our partners' capabilities and the capabilities of the commercial sector to enhance our survivability. We must design future space and ground systems with survivability and resiliency as a requirement. To develop a survivable system, it is necessary to consider the entire architecture that spans the range of government satellites of all sizes, commercial capabilities, partner capabilities, and ground systems.

I also believe that communicating with Congress on a regular and continuing basis enables us to increase the pace at which we address the threats we face in space.

c. In your view, how can the United States lead in setting the rules of the road for space?

It's critical that the United States maintains leadership in establishing rules of the road for space. If confirmed, I look forward to working with other government agencies to ensure the United States remains a leader in the space community and in establishing rules of the road for space.

5. DoD-IC Integration

In order to effectively address threats in space, and ensure U.S. superiority in space, we need the Department of Defense and the Intelligence Community to be working seamlessly together. The best example of integration between the Department of Defense and the Intelligence Community is at the National Space Defense Center. This integration is critical to defending our assets in space.

a. In the face of current threats, how do you assess the strength of that integration now?

It is my understanding that the relationship the National Reconnaissance Office (NRO) has with its users in the Intelligence Community (IC) and the Department of Defense (DoD) is working well. It is important that the NRO maintains a close relationship with IC and DoD partners to ensure that it can deal with the current and evolving threat environments.

If confirmed, the need to maintain strong partnerships will be a priority.

b. Will that integration mission need to be enhanced moving forward?

It is my understanding that the National Reconnaissance Office (NRO), the Intelligence Community, and the Department of Defense work well together today. In the future, I recognize that users' needs will evolve and that the NRO must be responsive to these changes. Additionally, new technologies and commercial capabilities will become available to meet current and evolving needs. As a result, it is important that we consistently enhance integration to ensure that we all understand the threats, what performance is required to address those threats, and how the technologies and partner capabilities can be applied to address the threats in a timely and effective manner.