

**Testimony of**  
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**before the**  
**House Armed Services Committee**  
**Subcommittee on Strategic Forces**  
**Hearing on**  
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**Programs**

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**NGA**  
**NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY**



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Good afternoon Chairman Lamborn, Ranking Member Moulton, and distinguished members of the Subcommittee. Thank you for the opportunity to update you on NGA's mission and support to our national security space programs.

The National Geospatial-Intelligence Agency (NGA), is the lead U.S. agency and world leader in timely, accurate, and actionable geospatial intelligence (GEOINT) that provides a decisive advantage to warfighters, policymakers, intelligence professionals and first responders. GEOINT is a highly evolved intelligence discipline that goes beyond telling you what is happening, where it is happening and when it is happening. It also reveals how it is happening, why it matters and what is likely to happen next. NGA also maintains detailed, foundational physical characterizations of our planet from ocean floors to beyond the Earth's atmosphere and provides products our forces require to navigate and operate safely every day, everywhere around the globe.

We have seen a dramatic increase in demand for space-related GEOINT, and NGA is increasing our focus on cutting edge GEOINT analysis of our adversaries' space-related equipment and activities on Earth and in space. This is reflected in our new motto, "Know the World, Show the Way ... **From Seabed to Space.**" This revision does not expand our mission, but acknowledges that our dynamic, changing world requires a steadfast effort across every domain, including evolving areas requiring our most creative tradecraft and dedicated attention.

NGA is heavily invested in both applying GEOINT data from space-based systems to national security needs and using GEOINT to contribute to space security. A vast amount of our GEOINT data sources are space-based systems that include U.S. national technical means and commercial providers. These assets enable us to provide timely warning to the warfighter and national decision makers by analyzing and reporting imminent threats in global hot spots and providing unique insight into these critical areas.

Over the past year, Russia's unprovoked invasion of Ukraine has driven a heightened demand for GEOINT products. In addition to classified reporting on the conflict, NGA has enabled a greater shared understanding in order to counter Russian disinformation by providing releasable commercial imagery and data throughout the crisis. The tremendous capabilities in the commercial sector have enhanced our ability to provide unprecedented partner access to these assets in near real-time.

NGA also facilitated agreements with commercial providers to enable partner nations access to such imagery. This included: (1) high-resolution commercial electro-optical imagery which is valuable in characterizing equipment types and performing damage assessments; and (2) Commercial Synthetic Aperture Radar imagery, which is capable of looking through nearly all-weather conditions, day or night, providing situational

intelligence when other collectors cannot, which is especially critical during the long, cloudy winter months. NGA also continues to evaluate new commercial GEOINT data and service providers for potential integration in support of current and future crises.

Many are surprised to learn about the broad role NGA has in supporting Assured Positioning, Navigation, Timing and Targeting. We lead the way for the DoD by helping ensure the precision and accuracy of GPS and maintaining the World Geodetic System 1984 (WGS-84) reference frame, which is the backbone for all geolocation. Our work improves GPS accuracy for government civil agencies, commercial industry and individual consumers, while the geodetic data we collect and manage is also required for the precision engagement of U.S. weapons systems. Our safety of navigation missions, including aeronautical and maritime, are vital to our nation's power projection and freedom of movement by ensuring the continued safe passage of servicemembers worldwide through navigation and flight information publications.

While we have well-defined responsibilities for safety of navigation in the maritime and air domains – we are still working to evolve the GEOINT foundation role as it applies to the space domain. Just as NGA's predecessor agencies mapped the moon ahead of the Apollo missions, today we are working with NASA to develop the Lunar Geodetic System that will be the coordinate framework for the accurate and safe movement on the moon.

Cislunar space and the moon's surface are drawing increasing international interest as it represents a critical region of cislunar space, presenting near- and longer-term prospects for mining natural resources, conducting scientific experiments, preparing deep-space journeys, fueling satellites and improving space communications. These interests and activities could create chaotic and unsafe conditions without standardization on the lunar surface. NGA's Lunar Geodetic System will provide that common coordinate framework to facilitate accurate and safe movement. As space becomes an increasingly populated domain, the importance of NGA's support to space operations will only grow.

NGA's 14,500 GEOINT professionals work across more than 100 locations in the U.S. and 20 international locations. We have support teams embedded within many government agencies, each Combatant Command headquarters, service intelligence centers and most service operational headquarters; to include direct-support to the United States Space Force.

Whether faced with a pandemic or other crisis, NGA's culture of service to country powers a passion that helps ensure mission accomplishment while delivering on our commitment to diversity and inclusion. Despite the technological advantage we might have, we must not forget that it is the unrivaled analytical experience and expertise our

workforce brings that cannot be replicated. To evolve a workforce with the technical and substantive expertise required to achieve and sustain GEOINT supremacy in the face of ever-changing worldwide threats, we aggressively collaborate with dozens of universities and colleges to connect with STEM talent, employing every tool available, including the awarding of academic grants, connecting with university-affiliated research centers and establishing our NGA Visiting Scientist program to ensure we adapt to the changing world of big data and commercial imagery and data growth.

NGA does not own or operate space systems, but we rely heavily on the data that comes from space systems and contribute to understanding space threats through our GEOINT work as a combat support agency for military activities from the bottom of the ocean and out into space. We partner with US Space Force and USSPACECOM, to ensure that GEOINT plays the fullest possible role in their understanding of adversary space and counterspace threats and activities. Our embedded presence not only brings the full power of GEOINT, including analysis, collection management, and requirements development, but it allows us to directly team on the career development and training of GEOINT-capable service members, including Guardians.

We know the magnitude of our responsibility to meet the operational and intelligence needs of those who rely on our GEOINT expertise, from the tactical edge to the Oval Office. Central to this responsibility is vigorous stewardship of the resources that you authorize supporting our core operational, intelligence, and safety of navigation missions.

We also value and recognize that the corporate and technical knowledge of the space community is an evolving resource. With nascent training programs across the community, NGA has already developed space-related GEOINT training courses for space professionals in the DoD, IC and Allied partners. We are on track to graduate over 300 students this year and we are in the process of finalizing a follow-on course for our customers and partners by the end of the fiscal year.

Space acquisition has always been complex. While we prioritize our future architecture requirements to ensure the intelligence needs of our GEOINT customers are met, we concurrently partner with existing capability partners, especially National technical means and commercial, to ensure we can efficiently use available systems as the amount of GEOINT data is rapidly expanding. The transfer of Project Maven to NGA will also play an essential role to future military operations. Artificial intelligence and machine learning are designed to fuse enormous amounts of data from across disparate data sets and provide meaningful answers. We appreciate your continued support of this transition where we advance Maven from an R&D AI project to a sustained, operationalized, and interoperable program of record.

NGA will automate significant portions of imagery exploitation and reporting workflows, to include leveraging computer vision to rapidly exploit data; using advanced modeling techniques to understand, correlate and predict activity; and integrating automation and modeling capabilities to prompt dynamic collection.

While we believe in our strengths as an agency, GEOINT is unquestionably bigger than a singular agency, and we are better when we work with our partners in industry and academia to find innovative solutions to hard geospatial-intelligence problems.

NGA continues to grow and evolve its space intelligence mission through people, partnerships, and capabilities to meet current and future customer needs. We will continue to have a vested interest in the space domain, as much of our overall GEOINT mission is enabled by data from space systems.

Thank you and I look forward to answering your questions.