Testimony of

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Good afternoon, distinguished members of the subcommittee. Thank you for the opportunity to provide an update on NGA's mission and support to our national security space programs.

The National Geospatial-Intelligence Agency (NGA) is leading the world in delivering timely, relevant, accurate, and actionable geospatial intelligence (GEOINT). NGA provides the decision advantage to warfighters, policymakers, intelligence professionals, and first responders — advantage necessary to develop and carry out national security objectives that defend the homeland, secure U.S. interests abroad, and protect Americans serving in harm's way.

NGA's mission is the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict features and geographically referenced activities on and about the Earth. The GEOINT we deliver conveys what, when, and where events are happening and illustrates how they are occurring, their implications, and what is likely to transpire next.

NGA is an all-domain GEOINT agency, drawing imagery and the associated geo-locational meta data, from the air, sea, land, and space. Space-based systems play a critical role in providing NGA the data we need to carry out our mission. Unfortunately, our global competitors also understand the importance of these assets, as well as the need to understand all activities occurring in the space realm. China's and Russia's space activities have become increasingly concerning, as each has developed and fielded counterspace capabilities, including progressively more capable multi-sensor systems designed to hold U.S. space-based systems at risk.

Both China and Russia have deployed ground-based counterspace capabilities, including electronic warfare systems, directed energy weapons, and antisatellite missiles. Russia's development of a satellite capable of carrying a nuclear weapon is particularly alarming, as its employment could cause devastating effects for U.S. and partner national and commercial satellites and architecture. The consequences of nuclear detonation in space would be severe for our global interconnected and interdependent infrastructure and would impact the lives of everyone on Earth.

NGA's motto — "Know the World, Show the Way…from Seabed to Space" — reflects the agency's responsibility to understand and distinguish developments such as these in a dynamic, changing world across every domain, including space. NGA is dual-hatted as a Combat Support Agency and member of the Intelligence Community; our role is unique and rooted in its formation by the direction of Congress to fulfill the GEOINT requirements of the Department of Defense, Department of State, and other federal agencies. NGA delivers on this commitment every day at every combatant command, and across the interagency.

Consistent with statutory requirements, NGA continuously provides warning, targeting, and safety across the globe. Anyone who fights wars, locates targets, sails a U.S. ship, flies a U.S. aircraft, makes national policy decisions, responds to natural disasters, or even navigates with a cell phone relies on NGA. Our collection experts task space-based systems — including U.S. national technical means (NTM) and commercial satellites — to produce imagery, enabling GEOINT exploitation across the National System for GEOINT (NSG) and the delivery of GEOINT for timely indications and warning of imminent threats in conflict areas and unique insights on critical issues around the world.

NGA's team, comprised of over 15,000 GEOINT professionals, is spread across more than 200 sites, including more than 20 countries around the world. You will find NGA personnel embedded at every combatant command, most warfighting headquarters, many government agencies, service intelligence centers, and at every intelligence agency. NGA officers are also co-located with the United States Space Force, United States Space Command, and National Reconnaissance Office.

In collaboration with these partners, we are driving a modernized approach to providing GEOINT to warfighters at the tactical edge. NGA has invested in several areas to achieve this objective through improved collaboration in the collection process, further refinement in commercial GEOINT acquisition, and a laser focus on the delivery of Artificial Intelligence and Machine Learning (AI/ML) technologies and capabilities to warfighters. NGA's investments in these areas and the efficiencies gained will be the focal point of my discussion today.

The expanding opportunities for space-based GEOINT collection, including NTM and commercial sources, are generating a data deluge that will allow us to support the demands and needs of warfighters in the future. NGA is meeting this challenge by enabling analysts to discover and integrate GEOINT data at the speed of mission, driving down the cost of data storage, and applying AI to quickly triage and exploit GEOINT data and distribute that information to users at the tactical edge, across all domains.

Obtaining the imagery and data necessary to answer intelligence questions is not a simple task. NGA's team of highly skilled professionals conduct a process we call "informed collection orchestration," choreographing an increasingly complex and capable constellation of space-based GEOINT assets.

Informed collection orchestration is the art of tasking pieces of the collection puzzle to align with national priorities, operational requirements and analytic needs, and real-world deadlines. NGA has incorporated AI-augmented GEOINT tasking which integrates AI-generated data streams and AI-assisted analytics to provide a more

efficient informed collection orchestration process. The process is central to ensuring our warfighters and intelligence professionals alike receive the imagery and analysis they need, when and where they need it – at location, on time, and accurately.

NGA's role in informed collection orchestration is in statute, policy, and practice and entrenched in our expertise as leaders in the GEOINT discipline. In the past year, NGA established the Joint Mission Management Center (JMMC) with the United States Space Force to consolidate our collection experts at NGA with Space Force Guardians, DoD, interagency, and Departmental Requirements Officers. The JMMC joins warfighters and intelligence professionals under NGA's roof to decrease the gap between collection requests and delivery, leveraging the whole-of-GEOINT constellation to optimize and deconflict collection operations in real time.

Informed collection orchestration also accounts for the growing role of commercial GEOINT. NGA prioritizes agile, flexible, and timely acquisition of commercial services and analytics as part of a concerted effort to meet the operational needs of partners across the NSG.

NGA leads a community-wide process to coordinate commercial GEOINT purchases across the government, maximizing our ability to share commercial imagery and analytics and preventing redundant acquisitions. NGA provides the Services, Combatant Commands, interagency, first responders, warfighters, and international partners access to commercial imagery through a web-based service known as Global Enhanced GEOINT Delivery (G-EGD). With over 400,000 G-EGD users, NGA delivered more than 325 million unclassified images to missions across the whole of government in 2024 alone.

NGA also delivers commercial analytic solutions which provide timely, shareable commercial GEOINT to warfighters. For example, we offer a "High-Risk Vessel Service" to the community that geolocated over 2,400 vessels of interest in the South China Sea between July and November of last year, providing warfighting intelligence elements reliable data and enabling partner integration.

Additionally, NGA is responsible for coordinating with the Commercial Remote Sensing Regulatory Affairs Office (CRSRA) at the Department of Commerce on legislative, regulatory, and policy activities for U.S. commercial remote sensing vendors, ensuring national security concerns and needs are balanced with promoting a robust U.S. space industrial base.

To manage the significant growth in the volume of GEOINT data and data sources available, NGA is making significant investments in automation to speed workflows, as well as AI/ML to fuse data to enable sense-making. We are leveraging computer vision to rapidly exploit data; using advanced modeling techniques to understand, correlate,

and predict activity; and integrating automated modeling capabilities to prompt dynamic collection.

Today, NGA is incorporating GEOINT AI into warfighting headquarters around the world, accelerating their operations and enabling lethality through programs like NGA Maven. NGA Maven has more than 20,000 active users across more than 35 Service and Combatant Command tools, quadrupling in number since March of 2024.

Our warfighters have confidence in NGA's AI-generated GEOINT because of our commitments to increasing the fidelity of target identification, improving geolocation accuracy, refining our test and evaluation process, and focusing on speed of delivery. In fact, NGA Maven has decreased targeting workflow timelines by as much as 80 percent, with one warfighting element's targeting cell seeing intelligence-operations timelines drop from hours to minutes from sensing to target engagement during a recent exercise.

NGA is also making strides with generative AI, developing geospatial agents to enable Large Language Models (LLMs) to seamlessly access geospatial data and aid in the creation of GEOINT — freeing up analysts for GEOINT exploitation requiring deeper analytical insight. We are conducting multiple pilots to explore the adoption of generative AI models to sift through millions of detections and GEOINT reports that will make a difference in the speed and accuracy of target identification, creating efficiencies in analysis, exploitation, targeting, and collection operations. These models offer NGA opportunities to better serve warfighters by reducing the latency associated with disseminating critical GEOINT.

NGA's investments in informed collection orchestration, commercial GEOINT, and AI are paying dividends in our support to border security, counternarcotics, humanitarian assistance, disaster relief, and combat operations. Following the issuance of Executive Order 14165, "Securing Our Borders," I directed the creation of NGA's Border Task Force at NGA headquarters and deployed officers to the border to support the GEOINT requirements of U.S. Northern Command, Department of Homeland Security (DHS), and Customs and Border Protection.

NGA's Support Team at USNORTHCOM also adjusted posture to match the increased requirements and operations tempo as the command stood-up the Joint Intelligence Task Force – Southern Border. Our GEOINT professionals are synchronizing, prioritizing, and orchestrating GEOINT for the whole of government approach to enhance border security operations, improve situational awareness, and inform senior leaders and policy makers.

When natural disaster struck the southeastern U.S. last autumn, NGA answered the call to support Federal, State, Local, and Tribal search and rescue efforts and damage

assessments in the wake of Hurricanes Helene and Milton. We mobilized personnel to support relief efforts in collaboration with DHS and other stakeholders, orchestrating satellite imagery over affected areas across the southeastern U.S., and making extensive use of commercial data to assist rescue operations and evaluate the status of road networks.

While our role in performing GEOINT analysis using space-based systems is relatively well known, we are also leveraging the space domain on a number of lesser-known missions with the help of our mission partners at NASA, the National Oceanic and Atmospheric Administration, and the U.S. Geological Survey. For instance, NGA maintains detailed, physical characterizations of our planet from the ocean floor to beyond the Earth's atmosphere. We are responsible for production and maintenance of data on more than 49,000 airfields and 70 million hydrography features worldwide, and provide products that our forces rely upon to navigate and operate safely around the globe. Just as with imagery analysis, we rely upon space-, air-, and land-based sensors to perform these critical functions.

Furthermore, NGA is responsible for guaranteeing assured precision and accuracy of GPS and maintaining the World Geodetic System 1984 (WGS-84) reference frame, which is the backbone for all geolocation. This improves GPS geolocation accuracy for government civil agencies and warfighters alike, guaranteeing assured precision, navigation, timing, and targeting.

While NGA is focused on enhancing the accuracy of GPS, we also recognize concerns about the system's vulnerabilities, driving us to innovate and develop alternatives. NGA is advancing capabilities to produce digital maps for navigation via magnetics, gravity, remote sensing, celestial, and elevation. These alternatives provide reliable navigation that is resistant to GPS/GNSS disruptions.

NGA must also anticipate and consider future Space GEOINT requirements of the Department of Defense and Intelligence Community. With an eye toward the future, we are gathering community needs for Geospatial-Intelligence on and about space. NGA is doing this in collaboration with the NSG to ensure all stakeholder requirements are represented in future investments and acquisitions.

In closing, NGA relies heavily on the data that comes from space systems to meet the GEOINT needs of our Department of Defense and Intelligence Community. We are more integrated across the community, and faster than ever before. We have unique expertise understanding the capabilities and limitations of our national and commercial GEOINT capabilities, as well as the experience necessary to meet needs ranging from navigation to solving intelligence problems.

Thank you and I look forward to answering your questions.