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Good afternoon Chairman Cooper, Ranking Member Lamborn, and members of the Subcommittee. It is a great honor to represent the people of the National Reconnaissance Office (NRO). For more than 60 years, the vision of the NRO has been to “see it, hear it, sense it.” We have built an amazing advantage in space – developing, acquiring, launching, and operating satellites that collect and deliver the best intelligence, surveillance and reconnaissance (ISR) data on the planet. I am pleased to be here today to share with you the steps we are taking to deliver ISR to warfighters and policymakers both present and future; at the right place, at the right time, and at the right classification; with a proliferated, resilient constellation of assets. From the tactical to the strategic, NRO has it covered.

Space: A Rapidly Evolving Domain

This is an unprecedented time at the NRO.

The United States has never before been more reliant on our capabilities in space. Our national security and our modern way of life depend on it. Every day, the NRO serves half a million users, providing critical data to policy and decision makers. Our imagery has proven invaluable to government agencies and commercial users that track everything from natural disasters to crop production to climate change. Of course, what’s most important to our national security and the work of this Subcommittee is the NRO’s support of the Department of Defense (DoD) and the Intelligence Community (IC). We provide accurate, timely imagery to warfighters on the front lines. And we monitor what is happening globally, even in hostile territories and terrain that would not be accessible any other way to support the analytic and policy community. This informs strategy and prevents miscalculation. We are able to deliver on this mission because of our legacy of innovation and the unparalleled skill of our workforce.

At the same time, space has never been more dynamic. The pace of technology is accelerating, creating opportunities for both governments and the private sector. Satellites are being launched in record numbers. In 2020 alone, more than a thousand satellites were put into orbit – the most in a single year, and mostly by commercial entities. Our competitors, especially China and Russia, are trying to challenge our advantage in space, dedicating money, manpower, and resources, including newer, better weapons and anti-satellite technology. They have aggressive systems both on the ground and in space. They have the ability to watch us closely and disseminate that information very quickly. Simply put, it is imperative that we protect our assets and our competitive edge. How do we do this?

Staying Ahead of the Competition

NRO capabilities provide customers with global and regional capacity and assured access to maintain a strategic advantage against near-peer competitors or focus on ways to counter rogue regimes and regional and transnational threats. We are delivering systems faster, with 9 launches and 17 payloads into orbit over the last two years. As we work to proliferate our architecture the NRO is leveraging commercial technologies and delivering systems in as little as 18 months, and those systems are returning immediate dividends providing awareness in real world crisis events. We are moving faster in our acquisition processes with both traditional industry and new entrants into the marketplace with innovative and streamlined contracting approaches. To accelerate and focus our progress even faster, earlier this year we refreshed the NRO’s strategic priorities and are currently working on an implementation plan. These updates reflect the changes and new challenges that we face in space and the shifting strategic

environment. The priorities outline the NRO's mission, vision, and values, along with high-level goals and objectives:

- Grow and lead an empowered, engaged, and inclusive **workforce**
- **Innovate** faster to stay ahead of competitors
- Deliver **responsive and agile** space-based intelligence, surveillance, and reconnaissance
- Bolster **resiliency** to execute the mission in a challenging environment
- Cultivate mission-enhancing **partnerships**

Because innovation is imperative to keeping us ahead of our competitors, it is inherent in each of these five priorities. We see these goals as equal and interconnected, each of them a vital and complementary part of our present and our future plans.



Our Workforce Leads the Way

The NRO's most important asset is our people. We are only successful because of the outstanding skills and dedication of our workforce. Building and operating the NRO's advanced reconnaissance systems requires the talents of a team of engineers, scientists, financial managers, acquisition professionals, space operators, and specialists in many other career fields. Our workforce strategy is driven by a commitment to making sure we have the civilian, military, and contractor talent to meet mission demands, now and in the future. We are invested

in recruiting and developing a highly skilled, diverse, and thriving workforce that will continue to innovate and deliver the capabilities that maintain our strategic advantage.

Innovation: It's in Our DNA

Innovation is the key to staying ahead of our competitors. It is built into the DNA of our agency and is part of everything we do. We are developing a full range of cutting-edge tactics and techniques that will enable us to continue supporting the agencies and the warfighters who depend on us. We are accelerating acquisition timelines, leveraging a growing domestic space industry, and deploying satellites of various sizes to provide more capability, more diversity, and better resiliency. We are investing in artificial intelligence and machine learning techniques so we can collect more of the data that matters. And we're using on-board processing and automation to ensure we deliver what's needed directly to the front lines. In doing so, we can integrate even more spacecraft, improve decision-making, and shorten reaction timelines for our warfighters.

Two demonstration systems recently developed by the NRO are examples of such innovation. They illustrate our efforts to deliver capabilities more quickly, using a combination of commercial components and processes and government-sponsored capabilities. Both systems went from concept to orbit in less than three years, and both were delivered on schedule and within budget. And they almost immediately started serving the needs of both warfighters and national policymakers. Both supported earthquake relief in Haiti, imaged areas over Afghanistan to support the evacuation of U.S. troops, and provided insight into areas of Ukraine under Russian assault.

Responsive and Agile When It Matters Most

These two new systems, coupled with the NRO's work with commercial imagery providers, offer an unprecedented level of speed and information sharing with our warfighters and allies. Along with our national technical means systems, they enabled NATO and the entire world to see in real time the Russian military buildup prior to its invasion of Ukraine. Working with our National Geospatial-Intelligence Agency (NGA) partners, these products are being widely disseminated at the NATO Intelligence Fusion Center and shared with the U.S. European Command.

The critical value of the information we are capturing and sharing is attracting attention. As Director of National Intelligence Avril Haines recently testified to Congress, without the IC, the world would have had no warning about Russia's invasion, and global leaders may not have been so united in speaking out against Putin's aggression and the need to hold him accountable. Secretary Blinken noted that the intelligence shared was critical to diplomatic and public messaging, which helped galvanize a strong, unified international response and helped prepare the Ukrainians to better defend themselves.

The commercial sector presents incredible opportunities to do more and do it faster. We don't just want it, we need it. It's part of our architecture, offering capability from launch to production systems, applicable processes, and data. NRO has already awarded multiple commercial contracts that continue to provide more than 75,000 images each week in support of intelligence, national security and civil missions. In January, we awarded five contracts for commercial radar capabilities under the agency's new Strategic Commercial Enhancements Broad Agency Announcement (BAA) Framework. Companies receiving contracts are Airbus-U.S.; Capella Space; ICEYE-U.S.; PredaSAR; and Umbra. The Strategic Commercial Enhancements BAA Framework is designed to reach across disciplines and the global

commercial remote sensing market to drive innovation, explore new phenomenologies, and ultimately ensure the U.S. Government has access to the best available capabilities. Consistent with the NRO's commitment to a more agile acquisition process, this procurement was conducted quickly and efficiently, advancing from request for proposals to award in just over three months.

Bolstering Resiliency Across Our Missions

From our spacecraft design, to our supply chains, to our information technology infrastructure, to our collection architecture, NRO teams take a cross-enterprise approach to ensuring mission resiliency. We are working closely with industry, academia, and mission partners to design a comprehensive overhead architecture – one that leverages small to large satellites and best-in-class government and commercial solutions. Our goal is to deliver a resilient, proliferated, and persistent constellation across orbital regimes that can anticipate and adapt to current needs, emerging customer demands, and future threats.

We understand the significant investment that taxpayers are making and the dependence that our warfighters and policymakers have in our systems. Along with proliferating our architecture, we are taking steps to increase the end-to-end survivability and strength of our systems by shoring up single points of failure and addressing vulnerabilities on the ground and in orbit. We are working with our partners at U.S. Space Command and the U.S. Space Force to protect and defend our systems, developing new technologies and tactics that will increase survivability in the event of hostile acts towards our systems.

Partnerships Enhance Our Effectiveness

The NRO's partnerships with our DoD and IC colleagues are vital to enhancing and executing our mission. Since the stand-up of U.S. Space Force and U.S. Space Command, we have forged strong relationships to coordinate activities to assure the space-based systems the U.S. and our allies rely on can deliver without disruption. In 2021, the Space Force, Space Command and NRO signed the Protect and Defend Strategic Framework. This high-level document formalizes the end-to-end operations in space between the DoD and IC on everything from acquisitions to operations. Close relationships with the NGA and the National Security Agency provide the basis of vital geospatial and signals intelligence capabilities, which underpin the full-spectrum, all-source analysis done at the Central Intelligence Agency, Defense Intelligence Agency, and Combatant Commands.

On the international stage, we are working closely with our allies on a number of initiatives on the ground and in orbit. In 2020, the NRO launched the NROL-151 mission from New Zealand aboard a Rocket Lab Electron rocket. We anticipate additional launches of NRO missions from "Five Eye" partner space complexes later this year.

While the NRO has a 60-year history of working closely with industry and academia, we are redoubling our efforts to leverage the speed and affordability of the commercial space industry. On April 15, the NRO will be launching the NROL-85 mission from Vandenberg Space Force Base aboard the same SpaceX Falcon 9 rocket booster that successfully flew our NROL-87 mission into orbit just eight weeks ago. In October, the NRO officially opened the CASTLE—the Center for Advancing Science, Technology, Learning, and Engagements. The CASTLE is a collaboration with the NRO's Advanced Systems and Technology directorate, the Air Force Office of Scientific Research, and their partnership intermediary, the Virginia Tech Applied Research Corporation. The nearly 10,000-square-foot facility, which includes areas for

collaboration, teaching, meetings, and laboratory workshops, will allow the NRO to more effectively interact with academic and industry partners in the unclassified world. The CASTLE currently hosts technical courses on topics such as small satellites and data science for staff across the IC and DoD, and as directed in the United States Space Priorities Framework the NRO plans to expand collaboration beyond the government with opportunities for academic outreach through STEM events for K-12 students, summer internships, and college and university partnerships.

Conclusion

Mr. Chairman, the NRO is at a pivotal moment in its history. For 60 years our dominance in space was largely unchallenged. That's not the case anymore because it's quickly turned from peaceful to competitive, and has all the potential to become conflicted.

However, space remains an amazing domain with unlimited opportunity. The future depends on our ability to innovate. To protect our assets and stay ahead of our competitors, we must develop new tactics and techniques. We must broaden and deepen our partnerships, working with new partners in government and the IC as well as academia and industry. And we must be agile and resilient. I am confident the NRO is up to the challenge – to not just do what is necessary, but all that is possible. We will continue to deliver *Supra et Ultra* – Above and Beyond.

Thank you for your continued support of our efforts. I welcome the Subcommittee's questions.