



**2023 Mitchell Institute Schriever Spacepower Forum
Maj. Gen. Christopher Povak, NRO Deputy Director
Oct. 10, 2023**

INTRODUCTION

Good morning, thank you General Chilton [moderated by Gen. Kevin P. Chilton, USAF (Ret.)], and thanks so much for having me here as part of this forum.

For those who may not be completely familiar with the National Reconnaissance Office, our agency is responsible for research and development, acquisition, launch, integration and operation of the nation's vast constellation of space-based intelligence, reconnaissance and surveillance (ISR) capabilities. We also develop and operate the data processing systems and information technology networks associated with these ISR platforms. As both a Defense Agency and an element of the Intelligence Community, the NRO collects intelligence and information to support national-level and Department of Defense missions. And we also aid numerous civil agencies across the U.S. Government to support their scientific research, disaster response, and many other vital efforts.

To accomplish our mission, the NRO maintains close and productive partnerships across government, industry, academia, and coalition nations, especially with our functional managers, NSA and NGA, the Combatant Commands and military services.

Overall, the NRO's primary mission is to work with our partners to gain and maintain this nation's intelligence advantage during peace time and throughout periods of crisis and conflict around the world. It's the reason we were established sixty-two years ago and, today, the NRO remains the world leader in delivering and operating space intelligence capabilities.

But our job is getting harder. For decades, the United States has been the undisputed leader in space technology – no one came close. This is no longer the case.

Competitors across the globe are posing unprecedented challenges and gaining on our technology advantage at a rapid pace.

China, in particular, is closing this technology gap. They're investing significant money, manpower, and resources to challenge America's dominance in space – developing increasingly capable military space systems; a troubling array of new, sophisticated, and lethal weapons all enabled by space; and a growing arsenal of anti-satellite capabilities.

Today several nations, notably China and Russia, are actively developing ground and space-based weapons specifically designed to interfere with or destroy our systems in space. These counter-space capabilities include missiles and weapon systems designed to deliver directed energy, electronic warfare, and cyber-attack effects; all of which will threaten our ability to freely access and operate in space.

At the NRO, we're answering these challenges by advancing the capabilities we put in space and on the ground. We're employing cutting-edge technologies and providing more information, faster than ever before. So our warfighters, analysts, and policy makers can receive the real-time situational awareness and vital intelligence they need when they need it.



UKRAINE EXAMPLE

This situational awareness and vital intelligence, provided by NRO systems, has proven especially critical in supporting national decision makers, U.S. European Command, our European partners and NATO allies during the ongoing conflict in Ukraine.

For example, NRO, working with NGA, has augmented national collection with electro-optical imagery, radar imagery, and radio frequency data from U.S. commercial companies. And, in response to Russia's troop build-up and subsequent invasion of Ukraine, we moved quickly to modify existing contracts to add scope and value which enabled surge collection in support of mission partners and Allies.

The unclassified, shareable nature of commercial satellite data makes it an especially valuable source for situational awareness and intelligence sharing among U.S. agencies, our allies and other foreign partners.

Commercial imagery providers, on their own accord, also share their products with the media. This has provided an unprecedented level of transparency into Russia's troop build-up and ongoing military actions. It also provided the world with a clear lens into the extent and impact of Russia's unlawful invasion and the atrocities experienced by the Ukrainian people over the past twenty months.

NRO CAPABILITIES

The information needed to fully understand the evolving situation in Ukraine and in areas around the world, illustrates the benefits of a modern, hybrid intelligence architecture.

Fortunately, the NRO is already building the largest and most capable, diverse, and resilient overhead constellation in our history. We're also putting new capabilities on orbit, on the ground, and everywhere in between. And we are making great strides in expanding our capacity, persistence, and accuracy.

Within the next decade, NRO expects to quadruple the number of satellites we currently have on orbit – different sizes, different orbits, both commercial and national. These satellites will deliver over 10 times as many signals and images as we're collecting today.

The proliferation and diversification of our architecture will provide increased coverage; greater capacity and resilience; and more timely delivery of data. We will create more persistent coverage over any area on the Earth, provide faster revisit rates and increase the accuracy and fidelity of our data. Such improvements will increase the confidence and relevance of NRO capabilities, which are already the world's standard of excellence for space-based ISR.

NRO investments will increase the survivability and strength of our systems by shoring up single points of failure and addressing vulnerabilities on the ground, in the cyber domain, and on orbit.

And they will help us anticipate and adapt to emerging intelligence needs, growing customer demands, and future threats.

We're also finding new ways of doing business. This includes applying advanced technologies and techniques like enhancing overhead tasking, collection, and data-processing capabilities to accelerate delivery of data to the user. This includes adding automation and multi-intelligence processes, among other things.



These technologies are helping us to reduce timelines and increase the amount of data we provide while decreasing the burden on analysts.

NRO is leveraging demonstration, or “pathfinder”, satellite systems to rapidly assess new technologies in the space environment and test new concepts of operations on orbit. This strategy is already reducing our timelines for deploying future operational systems and are allowing us to fill key intelligence gaps more quickly.

So, today, the integration of commercial systems into our architecture coupled with NRO demonstration systems make intelligence more available and shareable for analysts across the Intelligence Community, commanders on the ground, and our allies. The agility we’re building into the NRO’s space, data processing and command and control architectures is allowing us to be more responsive. And we are designing and developing systems that can perform multiple types of intelligence missions – enabling us to quickly pivot from supporting traditional national level analytical support to supporting military requirements for events like those in Ukraine.

To accomplish this, our expert, diverse workforce is laser-focused on developing and delivering end-to-end ISR capabilities that are relevant to our partners. We engage with our user community throughout the entire capability development cycle: from requirements definition to system operations. We collaborate with experts across industry, academia and the national labs to enhance existing technologies and, in some cases, push the bounds of physics, to continually improve the capability and relevance of our systems. Together, we’re meeting our goal of ensuring the right data is delivered to the right user at the right time, faster than ever before – in some cases, within seconds.

We’re also improving our ability to protect vital U.S. systems in space. Last month, we launched SILENTBARKER which will serve as a “neighborhood watch” in space. It’s a Joint endeavor between NRO and U.S. Space Force aimed at building our nation’s resilience in space through improved domain awareness. SILENTBARKER will give us indications and warnings to detect anything out of the norm, and enable us to figure out where our competitors are and their intent. And it will help defend our assets in space and deter aggression.

PARTNERSHIPS

Of course, we in the NRO know we can’t solve today’s challenges on our own. We depend on our relationships with other government agencies, other nations, academia and the private sector to identify new opportunities to optimize our talents, tools and effectiveness to serve the American people.

For example, our partnership with U.S. Space Command is rooted in years of effective collaboration. It’s not new and it continues to grow stronger.

At the National Space Defense Center, the NRO works closely with our Space Command counterparts fusing operations and intelligence – just like we do in other domains like air, land, or sea – to protect and defend U.S. interests in space.

Earlier, I mentioned Space Force and SILENTBARKER. Today, the NRO and Space Force are partnered on several efforts to include working hand-in-hand to shape the future of space-based Moving Target Indication (or MTI) systems which will provide day, night, all-weather detection and tracking of ground and maritime targets of the warfighter.



NRO is strengthening ties and cooperation with our traditional Five Eyes allies, taking advantage of multiple launch venues, shared satellite investments and exchanges of technologies and data. We are also establishing relationships with new international partners to advance our common interests.

With industry, the NRO is actively creating more opportunities to engage new partners, while expanding our outreach to small businesses, start-ups, and socially and economically disadvantaged business owners.

We believe our efforts to grow traditional partnerships while exploring new relationships with non-traditional partners and infusing our mission with fresh ideas will help us maintain that intelligence advantage amid this relentless pace of change. Because innovation knows no bounds.

PEOPLE

At the NRO, we are very proud of our proven ability to innovate, our track record of developing and delivering capabilities that are relevant and vital to our customers, and our ability to evolve along with the challenges we face. One of the main ingredients of our success is our amazing workforce.

Our blended team of Military, DoD, and Intelligence Community civilians is the reason the NRO has set the standard for space-based ISR for over the past six decades.

We're committed to recruiting and retaining a diverse and inclusive workforce, ensuring we have a pipeline of talent with the skills necessary to maintain our intelligence advantage.

In 2015, NRO established the NRO Cadre workforce – direct government hires – to develop a more permanent employee base to provide continuity. We continue to grow our internship program, welcoming 75 interns this past summer. To date, roughly two dozen of those interns have returned to work for the NRO after graduation.

This past summer, we unveiled a new NRO website specifically designed to help attract best talent. And we recently began airing five career videos on social media platforms as a way to introduce NRO to the general public. The videos invite potential job candidates to get to know us and consider careers in launch, acquisitions, cybersecurity, engineering, and operations.

And just last month, NRO was designated a federal laboratory – joining the military services, NSA, NGA, CIA and others – all of with their own lab capabilities. This designation will give NRO greater access to the talent and innovation within academia, private corporations, and nonprofits through new, formalized research and development partnerships within the Federal Laboratory Consortium.

NRO's lab designations will also allow for a greater exchange of expertise and resources and further the research, development, and testing of advanced technologies and materials that are critical to safeguarding our national security.

This is an exciting development for the NRO and I can't wait to see where it takes us.

It's just the kind of development we need to meet the evolving challenges we face in this dynamic space environment.



CONCLUSION

Throughout recent history, our nation has served as a world leader politically, economically, culturally, militarily and technologically. This leadership has brought great benefits to our citizens and to our allies around the world. It has also provided the U.S. and our allies the influence needed to deter aggression in areas spanning the globe. However, our past standing in the world is no guarantee of our influence in the future.

China, among other actors, is dedicating money, manpower, and resources to challenge our influence on the world stage – seeking new partnerships to advance their own interests, increasing their regional and global prestige and developing more effective and technologically advanced weapons to challenge and threaten us across all domains, including in space.

If the U.S. and our allies are to be successful in a future great power competition or in a crisis or conflict scenario someplace in the world, our ability to gain and maintain intelligence superiority will be key to this success. And space will continue to be a vital domain where we compete for this information advantage.

Today, the NRO's space-based ISR capabilities are, without a doubt, the best in the world. However, in an era of growing competition in space, our imperative is to develop the technologies, tools, capabilities, and space-minded experts to stay that way. With our amazing products, partnerships and people, we in the NRO have confidence in our ability to succeed.

Thank you. I'm happy to take your questions.

###