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36th Annual Space Symposium

Keynote Presentation

Remarks as Prepared for Delivery

August 24, 2021

Good morning everyone. The NRO turns 60 this year. Exactly two weeks from today. That's a big reason we did that video.

It's also an unprecedented time at our agency. Some of that is a by-product of the competitive environment we're seeing in space.

But it's really about the heritage of the NRO, and how we're constantly innovating, to remain the world's leader in space-based ISR.

This morning, I want to spend a little time on our first 60 years. But I want to spend a lot of time **looking at the next 60, and the big, bold steps we're taking every day**.

We weren't quite a space-faring nation when the NRO was formed back in 1961. But, as a country, we already had a pretty good idea that our modern way of life—our economy, our military and our national security—would depend upon our ability to operate "up there." These days, our reliance on space is more ingrained than ever. Since the very beginning, NRO's mission has been to maintain and expand our crucial intelligence advantage in space, to protect and defend the U.S. In recent years, the "protect and defend" part of that mission has been taken to new heights.

For more than half our 60 years, we were a black operation. The country didn't even know we existed until the mid-90s. And a lot of folks liked it that way.

Today, it's vitally important that we not only acknowledge what we do, but we recognize our partners, and we set the stage with our bold vision for the NRO.

On any given day, the NRO services a half-million users across the government, and not just DoD and every IC agency. We serve policy-makers, decision-makers, and we provide direct support to our warfighters.

But we also provide that data and imagery to a couple dozen domestic agencies, covering everything from natural disasters, to crop production, to climate change. Over the past two weeks, we've focused our systems on Afghanistan and Haiti, to not only broaden the understanding of each situation, but ultimately help agencies on the ground perform.

These partnerships—especially our working relationship with NGA and NSA—are established and wellknown. What's <u>not</u> is the partnership that will be foundational to our strategic environment in space.

That relationship has also been a source of speculation for some time. Let's clear up the way we work with Space Force and SPACECOM.

General Raymond and I flew here. **Together.** On the same plane. We spent Sunday night at a reception with General Dickinson. Thank you, sir!

Space, as a domain, is huge. But this community those of us who actually "do" space for a living—is pretty small. Just looking around the room and seeing how many people we work with, this isn't earth-shattering. But here's something you probably don't know. Since the stand-up of Space Force and Space Command two years ago, we have been **working as intimately as you can imagine**: on operations, on capability development, and most importantly, on the road ahead.

The three of us just finished signing the **Protect and Defend Strategic Framework**, covering national security in space. This high-level document formalizes end-to-end operations between DoD and the IC, on everything from acquisition to operations.

In practical terms, it **defines and de-conflicts** each of our roles. It drives **consistent and deliberate coordination** at multiple levels. It **establishes crisis planning** and **improves communication**.

And most importantly, it establishes an **unprecedented level of collaboration** on all space security matters.

Recently, two long-time members of our space family took prominent roles. Our own General Guetlein went west to stand-up Space Systems Command. We know he has a bold vision for SSC and we know **that our relationship will get even better**.

Secretary Kendall's space experience dates back to the Cold War and his acquisition experience is on-par with anyone.

Why is this important? As Secretary Kendall mentioned—we're infinitely better when we have likeminded partners, across industry, across borders—and I'm not just talking about Five Eyes, I'm talking about all of our allies—and across the government.

This diversity of ideas and capabilities makes us stronger and smarter. As my good friend Vice Admiral Sharp likes to say, "We not only have good friends, we have friends that are good." What China and Russia have already shown, is that space is now a race. It's a competition. It's a fight. And if we're not careful, it's going to become a knock-down, drag-out brawl.

Let's not forget how much money, manpower and research they—**and I'm talking China here**—are throwing at space. We're talking about counter-space capabilities, newer and better weapons. We won't even get into cyber attacks just yet.

In short, China is showing an unquenchable drive to get ahead of us, and take what's been our operational and intelligence advantage since JFK was in office.

If we— and by "we" I mean <u>all of us</u> in this room don't step up our game, we risk losing the high-ground. China is very smart, very driven, and they don't have the constraints we have. Remember, the Chinese are dual-use. The government owns commercial IP. So, even though their satellites may be labeled "commercial," they're actually doing the work of the Chinese Communist Party. And there are a lot of them up there.

How we fend off this competition and where we go from here largely depends on how much we **accelerate our development**, and **how much we're able to improve the capabilities** we already have in space.

Technology and innovation have been hallmarks of the NRO as long as the agency has been around. To quote my colleague and our good friend over at the NSA, "The NRO is unparalleled in its innovation, creativity and willingness to take risks."

Just take a look at last year. We set a record in 2020. We put 12 payloads in orbit, on six launches, on two continents, in the middle of a pandemic. If you count the four payloads we launched earlier this year, that's almost a payload a month. What you see there is L-111, back on 15 June. We put three payloads in orbit out of Wallops Flight Facility, Virginia.

We managed to maintain 100% of our capabilities during COVID, and all the credit goes to our amazing workforce and the unity of effort from our partners.

Next year, we're planning four launches in 29 days. Two of them will be in New Zealand.

But to keep pace in this power competition, **we have to do even more**. Let's face it: technology is a two-way street. Our technology improves, but so do the targets we're trying to collect against.

We already have a number of initiatives to support the continued **rapid infusion of advanced technology**— options we're already aware of and ones that haven't even been discovered.

The Director's Innovation Initiative—DII—gives us access to non-traditional developers that are doing groundbreaking research, or exploring cutting-edge technologies, all of which are relevant to our mission, and have high-payoff potential.

Since 1998, we've fielded six thousand proposals from 44 states. A third of the submissions came from vendors new to the NRO. A quarter of the projects we approved and funded, continued after the first year.

Many of the technologies submitted to DII are already at-work in our systems. I should also call out that we've placed no quotas or limits for any given area.

This year alone, we have 24 projects, covering magnetically-levitated gyroscopes, adhesives that can attach and detach in a vacuum, and large, lightweight apertures. And we're still looking for more.

We also have Astrolabe, academic outreach, and our Enterprise Commercial Consortium, and we're working with In-Q-Tel to match our needs with nascent technology. I have to mention our new partner and our expanded relationship with SDA, specifically the communication layer they have under development. In the coming years, it will provide the underpinning for a number of our capabilities.

If you have technology you think we can use, **go to the "Innovate-at-NRO" section of NRO-dot-gov.**

We're already making architectural changes to improve resiliency, increase capacity and capabilities. NRO's "Architecture After Next" is made up of national and commercial satellites, large and small constellations, working across multiple orbits.

To populate this architecture, we have to leverage industry even more. Innovation can happen at any level, in any organization, and we want to take advantage of the best. On the commercial side, we've seen an explosion of innovation. Today's commercial partners now provide imagery as a service, which allows us to focus on the difficult tasks.

We re-configured our next-gen commercial contracts to include pricing that **incentivizes innovation**, and **rewards the development of new capabilities**. Those went out the first week in June with our draft RFP for Electro-Optical.

We use the same approach for our global ground systems. That way, we can support and manage massive amounts of data, we can integrate even more spacecraft, we can improve decision-making, and shorten reaction timelines.

Commercial launch providers have all lowered barriers to space, by lowering cost and giving us flexibility in launch locations. Production spacecraft are already playing an increased role in our architecture. We have to continue the evolution of our streamlined acquisition process. We have a reputation across the government for our ability to reduce those traditionally lengthy development cycles, and we're proud of it.

Our agency structure is **as flat as it gets,** and we hold end-to-end responsibility, from concept to operations.

This gives us a unique ability to identify and develop the newest technology, then inject those capabilities right into our architecture, quickly and efficiently.

We buy what we can from our commercial partners, and build what we must. This allows us to **move faster**, **reduce cost**, **explore innovative technologies**, **and still meet our mission needs**.

Finally, I want to leave you with a quote from Tennessee Congressman Jim Cooper: "We're all on the same team here, whether you're playing halfback or fullback. All that really matters is whether the warfighter and the Intel community are well-served." Our proven track record in that area, and our ability to continue and expand our mission, would not exist without our partners.

I'm including our traditional partners, our new partners, as well as Space Force, and SPACECOM.

Together, with our commitment to technology and innovation, these partnerships form the foundation we need, that when our adversaries start flexing their muscle, **we can punch back.**

Thank you for your time.

And thank you again for having me.