ABOVE AND BEYOND
1961–2021

Ohio Space Forum - May 18, 2021
Dr. Troy Meink, Principal Deputy Director, NRO
Remarks as Delivered

Elaine, thanks very much.

Governor DeWine, Members of Congress, Members of the Ohio Legislature, distinguished guests and everyone joining us online, it's an honor to join you this morning. I wish I could be there in-person.

Ohio has always been a special place for me, especially the Miami Valley. My wife was stationed at Wright-Pat for a few years. We lived just down the road in New Carlisle. I got my masters and my doctorate at Ohio State…The Ohio State. I even spent some time at NASIC as a reservist. So I have to thank the Dayton Development Coalition for the virtual homecoming!

Anybody who knows me, knows I love planes. I love to fly. My love of aviation didn't start in Ohio, but it sure went to another level when I got there. And I have to tell you, Ohio earns every single bit of its "birthplace of aviation" nickname. We used to joke that you could lose an engine at 2,000 ft anyplace in Ohio and still make a runway…they are everywhere.

I'll even admit I caught the astronaut bug. John Glenn and Neil Armstrong had a lot to do with that. Those were the golden days when everybody was on the Ohio aerospace bandwagon. A lot of folks want us to believe those days are gone. But they're not. They're not even forgotten. We heard the same thing when the U.S. space program withered on the vine back in the early 90's. Well, I have news for you: we launched six rockets last year. We put twelve payloads into space. During a pandemic. Two of our launches were "firsts"-- one with

our RocketLab partners down in New Zealand. We sent up another just down the road from us, on Wallops Island, Virginia.

Speaking of Wallops, I can reveal this publicly for the first time: our next launch, NROL-111, will take place on Tuesday, June 15th, aboard a Minotaur rocket. That's our second launch in less than two months. The space program isn't going anywhere, but "up." And I firmly believe Ohio's role in this story is still to be written. More on that in just a bit.

When I first took a look at today's schedule, all I could see was the name right in front of me. General Lyles's devoted military service for over 30 years and his dedication to the space program is without peer. Sir, we cannot thank you enough and it's an honor to be asked to talk along side you.

As many of you know, the National Reconnaissance Office has a history of not talking about itself. We call our launches "L" and our Missions "M." We do not advertise our capabilities and we keep a fairly low profile. All of that is done intentionally and for a very good reason. However, today, I would like to offer a small peek behind the curtain.

Let's dial-in to what exactly NRO does and "can" do. We not only protect and defend our general way of life, but advance technology on a very broad scale. Right now, we're seeing a once-in-a-generation opportunity to leverage everything we do, both overhead and on the ground. And we have a lot.

NRO has made critical, groundbreaking advances above and beyond since the early days of the space race. But we've done it very quietly, a lot quieter than some of our IC counterparts. You remember the old BASF commercials, "We don't make the products you buy, we make the products you buy…better?" That's us. We'll go one better. NRO not only makes the intelligence, we make the intelligence…possible.

We are the best in the world at providing overhead intelligence, surveillance, and reconnaissance to more than 500-thousand government users, including every member of the Intelligence Community, 2 dozen domestic agencies, our nations lawmakers, decision makers, and certainly not least, our Nation's warfighters. With such a board customer base, you will find us providing access to intelligence across the spectrum of needs; from support for natural disaster relief through enabling precise geolocation of adversaries. I am a strong believer that you know yourself, and your own abilities, better than anyone else. So we at the NRO do not just produce the systems that make all this possible, we also invest heavily in the development of Artificial Intelligence and Machine Learning, and the software required to fully leverage our capabilities and as a result improve intelligence for all our partner agencies.

But much of what we do on a daily basis goes unnoticed and unheralded. Until about 30 years ago, it's not that we didn't exist, we just weren't acknowledged publicly. This year, we're turning sixty. How much have we changed? Well, just today I was told we now have a dedicated children's section on our website... If you want to make your very own launch patch during the break, feel free to go to NRO.gov.

That brings me to where we're going. After having enjoyed about 2-3 decades of unrivaled supremacy in space, our potential adversaries have begun to evolve— rapidly. They're capabilities are growing, they trying to close the technological gap and they're becoming much more aggressive. Our goal has been, and will always be, to maintain and expand the intelligence advantage for our decision makers. The only way to accomplish this goal, is to innovate faster than our adversaries, leverage partnerships both domestically and internationally and constantly integrate new technology. I don't think I'm exaggerating when I say what we do in the next 5 to 10 years will be critical to the stability of the international space order.

Our relationships and our partnerships with Space Force and Space Command have been in the media a lot these days. Everyone is talking about it, and everyone outside DoD and

the IC wants to make us competitors. In reality, the only place we are competitors is when we seek to recruit our nation's best talent. Our partnerships with Space Force and Space Command, General Raymond and General Dickinson, have never been stronger. Those relationships are essential to the space architecture and our Nation's strategy to protect and defend. Our programs support and complement each other.

At the NRO, we support both our Nation's warfighters and decision-makers, plus a whole-of-Intelligence Community approach. As I already lightly touched on, the NRO satellite constellation and missions are designed to support a universe of user needs, both in defense and national intelligence, as well as other government and international partners. Some of the same technology that enables us to track foreign-nation naval deployments also allows us to track the movement of hurricanes. Our technology can assess damage from earthquakes, floods and other natural disasters, so we can help guide relief operations on the ground. We map and track the habitats of endangered species, wetlands, and crop production. We track oil spills. We can even monitor and predict climate change. All from hundreds to thousands of miles beyond the Earth's surface.

Being here today gives me an opportunity to share just how crucial organizations like this, the people and businesses of Ohio, are to our capabilities. A good chunk of what we accomplish on a daily basis is a function of our partners, especially our commercial pipeline. Targeted partnerships, with both traditional industry, and emerging non-traditional providers, have enabled us to enhance our mission performance and extend our overall reach. They also give us access to leading edge technologies that exceed what we could do on our own, not to mention the ability to control and even reduce costs and operate without disruption.

That combination allows us to accelerate our rate of change to outpace our adversaries. The emergence of China and the sustained threat from Russia are no secret, but the bottom line is that the threats to our intelligence advantage, particularly as it pertains to space, is

unprecedented. Both of those nations have the money, the innovation, the industrial base and the will to challenge us.

China’s current development timelines for space systems are shorter than we’ve historically seen anywhere. Due to a seemingly endless supply of people and money, their ability to catch up to us in space has occurred faster than could have been predicted. Russia isn't far behind. Neither is making strides on their own. Our adversaries have been studying us for decades. They've watched closely to see what worked, what failed and what can be improved. So, in many ways, we’re still our own best competition.

Because our adversaries have become faster, smarter and more mobile, expectations have also changed. While the "concept" of delivering intelligence and other information remains the same as it was years ago, the intelligence cycle has accelerated dramatically. Delivering tactical information in near-real-time, or even real-time to our intelligence, military and other partners, is now the norm.

To that end, we've not only become a more streamlined acquisitions organization, we are leaders in acquisition operations in both DoD and the IC. We have a unique ability to help develop the newest technology and then rapidly infuse it into our architecture. After decades of investing in our industrial base, we have a viable commercial marketplace we can use to improve or supplement our national systems. In some cases, we can buy entire systems and adapt them for our own purposes. This approach doesn’t just apply to our space systems. With our global ground architecture, we use the same approach. As a result, we’re ready to support even more spacecraft, improve decision-making and shorten our reaction timelines.

Two things I do want to make clear: our acquisition strategy allows us to respond quickly to emerging threats, but it is not one-size-fits-all. Our relationships with key commercial suppliers are long-standing. Over the last few years, we’ve just refined and accelerated it, actively seeking out new suppliers across the entire spectrum of capabilities, across all sectors.

Looking ahead to the next two years, one of our key goals is to expand our commercial usage footprint even wider. There are many novel technologies that have come on-line in the last few years, enabling us to work with commercial companies in ways we never could before. In the end, what we've built and what we'll continue to build is a best-in-class system of systems of layered resiliency. It's a framework that gives us the ability to adapt to current needs, anticipate threats and meet future partner demands.

NRO's policies and practices have long addressed the risk in supply chain, but no one could have imagined how profoundly COVID-19 could have impacted our operations. I say "could," because a silver lining emerged from the pandemic. It made us take a harder look at our systems. It forced us to better understand how global events and production limitations affect supply chain. It also prepared us to mitigate vulnerabilities before they happened. As I sit here, I'm proud to say we maintained 100 percent of our mission capabilities through it all.

So, the big question…how does Ohio play into all this? The timing of this forum, at least for us, couldn't be better. Congressman Wenstrup just left our offices a few days ago. I'll tell you exactly what we told him, minus the security clearance. Ohio and NRO have more in common than you'd think. As Governor DeWine's team said right here in 2020, Ohio still needs to shift the "I didn't know you did that here" paradigm. We need change and raise our profile too.

We also need a strong, healthy industrial base to incubate our partnerships. We're actively looking to build alliances that not only align with our mission, but include novel capabilities. By the end of this summer or early fall, we're planning to release an RFP for NRO's next generation of commercial imagery contracts, then award those contracts as early as the second quarter of 2022. We're also exploring study contracts for radar and new phenomenology.

But our focus isn't just on technology and products. Our people are probably our greatest assets. We are successful because of their knowledge, their innovation and their collaboration. And I could spend my entire 20 minutes just running through our engineers, our scientists, our mission managers, our acquisitions folks, and our finance team. Too many to mention.

But we're not doing our job if we're not doing more to canvass, recruit, develop, train and equip the next generation to stand-up and take their place among our workforce. If we're going to expand our capabilities in space, we have to find a way to help expand the insufficient numbers of STEM graduates in the U.S. We have to challenge the knowledge base. We have to make a deliberate commitment support this growth.

Back in the 60s and 70s, that wasn't the case. Everybody was pre-disposed to careers in aviation and space. It was a big deal, because a big carrot— like a trip to the moon— was hanging in the balance. Here in the state where flying was born, schools like Cincinnati, Kent State and my alma mater, have already re-energized or re-fired their aerospace engineering programs. At NRO, we have to do our part to attract and retain a "junior cadre" of NRO leaders.

After almost six decades, I'm proud to say we just started our first-ever undergrad and graduate internship program. In 2020, we welcomed ten interns. Two weeks from tomorrow, 55 new interns will walk through our doors. 10 weeks working right alongside our experts. Did I mention they're paid internships? So, all you Bearcats, Golden Eagles and Buckeyes, you know where to find us.

When an Ohio man became the first man to walk on the moon, he didn't do it alone. He had a whole Nation right behind him. But back then, space was an epic adventure. Now, it's an unprecedented challenge.

As we begin to identify and address the existential and very real threats posed by our adversaries, that whole-of-Nation approach has never been more fundamental to our success. As we move to secure and protect our economy and our information, it's imperative that we fully employ every asset at our disposal. That includes our elite human capital, leveraging the commercial marketplace, enriching our existing partnerships, and innovating faster than ever before.

Thankfully, we've been doing just that for the past sixty years, and we've only just begun. Thank you all for having me and thank you Ohio. It's been a pleasure.

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