



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

**Remarks as prepared for
Robert Cardillo
Director, National Geospatial-Intelligence Agency
USGIF GEOINT Symposium
April 23, 2018
Tampa Convention Center
Tampa, Florida**

Good morning distinguished guests, ladies, gentlemen--members of Team GEOINT.

What a great lead-in! I intend to pick up the baton from Scott and carry our conversation further – and higher. This symposium – these conversations – our teamwork – remain essential to America’s future. Humanity has been greatly advantaged by global connectivity and common access to data.

Such worldwide transparency should lead to shared awareness – if not mutual understanding. And yet in an increasingly transparent world, shared awareness remains elusive and mutual understanding remains difficult – if not impossible.

Our anchor points are at risk. Facts are not what they used to be. What’s real? What’s artificial? Or fabricated? Or fake? What is the pedigree of that data? How can we be sure?

So in a world less tethered to ground truth, one grasps for context and coherence – for safe passage to a protected harbor. Our profession has always provided such refuge and such assuredness. Today – and tomorrow – GEOINT is the essential discipline.

And I am proud to say that we provide America and her Allies with the world’s premier geospatial-intelligence service – Period. But allow me to be equally clear – our future success is not guaranteed.

In the face of renewed great power competition and the proliferation of geospatial capabilities, NGA must work tirelessly to ensure the continued dominance of GEOINT to protect American interests in the future. And we are in this struggle to win – because win we must.

In the next few minutes, I intend to show you – not just tell you – what we are doing today – to ensure we are good enough tomorrow. I’ll do that by exploring the art and science – or, if you prefer, the science and art ... of our profession – by appreciating our storied past – and driving into our vibrant future.

I am also excited to share this stage – and our future – with a few of the heroes of Team GEOINT. They are the ones discovering, defining and delivering the future the world demands – and our customers deserve.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

I spoke last year of the importance of Science, Technology, Engineering, and Mathematics. And I must say that we're pretty good at STEM. We have identified the necessary data science skills for our Team GEOINT – to recruit, hire, train, and advance our officers. To that end – in the next three years – we intend to train all of our NGA teammates in computational thinking and basic coding. And we will provide advanced data science training for those who must have it.

As the US GEOINT Functional Manager, I intend to include Data Science in the suite of GEOINT Professional Certifications. And we will incorporate data competencies into our current tradecraft certifications.

Speaking of certifications, I'm proud to announce that last Friday, NGA became the first DOD organization to receive national accreditation of its Level 1 and Level 2 certification programs.

You see? We are in this to win – because win we must.

On Team GEOINT, we believe¹ that we need to add Art to the mix.

Different perspectives are essential to multi-faceted TEAMS – to really get things done.

Last year, I projected that if we were to manually exploit the future imagery we expect, we would need eight million imagery analysts.

Even in the best of budget times, we are still going to be short ...by roughly 7.999 million.

So we need to find another way...

I now want to share this stage with those who are picking up the baton – and racing forward – to win. It's my privilege to introduce Jolene Hess – she is a geospatial analyst – and Jolene has a story to tell.

[MS. HESS'S STORY BEGINS]

While I was studying Geography and GIS at the University of Utah, an NGA representative from Denver spoke to my Geography and Terrorism class, and convincing me that it was the place to be. So – a few years later, with an awesome group of tech-savvy colleagues, I've created a viewer for interactive customer-focused data visualization. It holds all the data layers NGA analysts and our military planning and policy customers need. The viewers are being used at State Department, DIA, and CIA, as well as and used by customers and mission partners in Europe and Asia, where they provide a focal point for geospatial data, reporting, and products.

I'm proud that I've improved the conveyance of what differentiates NGA – our GEOINT insight.

[MS. HESS'S STORY ENDS]

Thanks, Jolene.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

LEONARDO & GALILEO

Jolene and the rest of Team GEOINT stand on the shoulders of giants. In 1439, Johann Gutenberg fundamentally changed the way humans convey content – by inventing the printing press – with movable type.

This engineering achievement fueled the Renaissance – an explosion of human advancement. 13 years later, someone brilliant in both science and art – and art and science – was born in Vinci, Italy. Last fall, Walter Isaacson's biography of Leonardo da Vinci came out. Da Vinci was much more than just the painter of the Mona Lisa ... and The Last Supper. He also imagined scuba gear ... flying machines ... and helicopters. And this drawing of his was the foremost study of the human anatomy.

Per Isaacson:

“Leonardo's Vitruvian Man embodies a moment when art and science combined to allow mortal minds to probe timeless questions about who we are – and how we fit into the grand order of the universe.”

And you can imagine my pleasant surprise when Isaacson reflected upon Da Vinci's map of the town of Imola – and noted... the resemblance to the maps “on the walls of NGA.” So what made Leonardo... Leonardo? Above all else – relentless curiosity. Leonardo just had to know how our world works ... and he had to show that knowledge to others ... all to understand the world in a deeper way.

That's the kind of thing that leads to a good agency motto. His curiosity blended observation – with imagination. He documented the world as it is – and dreamed about the world as it could be – science and art – art and science. Upon his path, others followed...

About a century later, Galileo picked up the baton. In our profession, he pioneered the telescope.

After years of financial struggles, Galileo sold what we would call a minimal viable product to the leaders of Venice – at the time, the world's greatest trading center – to be set up in the bell tower of St. Mark's Square. It provided Venice with indications and warning of the most pressing problem lurking on the port's horizon threatening their way of life – pirates. Galileo literally claimed the high ground – and used technology to reach out to the horizon – and pull the future into focus.

Here's our next member of Team GEOINT, United States Air Force Staff Sergeant Joshua Freeza.

[SSGT FRISA'S STORY BEGINS]

I'm an imagery analyst. I was first stationed at Langley Air Force Base in Virginia when I heard about NGA's Counterterrorism mission – I was excited to make a difference in that area. My team's mission is to exploit Motion GEOINT – to provide real-time persistent surveillance for U.S. Special Operations Command. Our products enhance the warfighters' ability to see the battlespace – before and during combat operations. It's a very gratifying mission – to help our fellow service members, and keep them out of harm's way.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

[SSGT FRISA'S STORY ENDS]

Thanks, Josh.

STRATEGY

A few months ago, a new National Security Strategy was published – followed by a new National Defense Strategy.

Our 2025 Strategy will be out soon. It is our guidepost for the future. In a world where knowns are elusive and confidence is fleeting, GEOINT must be:

- instantly available,
- expertly validated,
- highly trusted,
- and easily consumable.

Our 2025 goals:

1. Inspire and grow our world-class GEOINT workforce.
2. Fuel and drive the Global GEOINT Enterprise.
3. Secure and deliver the Nation's most trusted GEOINT.
4. And bring the future into focus -- to anticipate opportunity and foresee threats.

The first goal is the most important – our people.

That brings us to our third member of Team GEOINT, Jamie Lazzeri, who also has a story to tell.

[MS. LAZZERI'S STORY BEGINS]

In 2006, NGA recruited me when I was a geoscientist on the Boeing Shuttle Radar Topography Mission. Last year, I joined NGA's Digital Attack Team – which was created to see how a small team could drive disruptive innovation. Recently, we used commercial methods like lean startup and human-centered design to create a tool called Conduit. It allows our NGA Support Team at the Pentagon to quickly search their most-written report types – going through 104 sources and an average of 500 reports. The team can then format the high-interest database entries into one-page summaries that allow policymakers to make quick decisions, with the most up-to-date GEOINT possible. Conduit has not only provided a 90% time reduction for these analysts, it allows them to spend much more time crafting better summaries.

[MS. LAZZERI'S STORY ENDS]

Thanks, Jamie.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

Jamie recently joined our Office of Ventures and Innovation – and she is now running a technology contest. We sponsor that contest – and we created that office – led by Christy Monaco – to expand our tent – to accelerate our risk-taking – and to move purposefully to innovation. By the way, Christy will give a Speaker Spotlight at the NGA Booth – right after I'm done.

Great ideas have to start somewhere. Fortunately, our profession has amazing role models. Like the legendary oceanographic cartographer, Marie Tharp, who created the first complete map of the ocean floor. She had science – with a degree in math – and she had art – with degrees in English and music. Marie revolutionized geology with her discovery that the ocean floor had a mountain range and a rift valley – this led to the proof of plate tectonics. We all accept that as indisputable today – but in the 1950s – Marie was mocked. She persevered – even though she was not allowed aboard nautical collection missions – because women were thought to bring “bad luck” to ships. Nevertheless, she persisted.

Our next teammate – Chelsea Ziegler – is a great example of someone who applied curiosity and tenacity to advance her craft.

[MS. ZIEGLER'S STORY BEGINS]

I discovered NGA during a career fair at James Madison University, where I double-majored in international affairs and political science. I've been working on a team that focuses on big-data analytics. I don't look at a snapshot – I look at multiple sources of intelligence over time. Whatever period my customers want to see – a year, a month, a day, an hour – I break the activity we're looking at into that, with the use of a time slider. It provides a more holistic threat assessment of the battlespace.

Thanks to ABI – Activity Based Intelligence – my team increased our formal production by almost 400 percent. We did it by incorporating custom analytical scripts that encourage efficiency, and automating steps in data harvesting and conditioning. And we've actually been able to isolate pieces of evidence that illustrate an enemy's military doctrine.

[MS. ZIEGLER'S STORY ENDS]

Thanks, Chelsea.

Now, a few minutes about Automation, Artificial Intelligence, and Augmentation – otherwise known as – AAA.

Let me be clear – I am not afraid of A.I. In fact, I have been anxiously anticipating it for 35 years.

In the past year, NGA ingested more than 12 million images – and generated more than 50 million indexed observations. 75 percent of those were derived from automated algorithms.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

Unfortunately, most of this data remains hard to access – and, thus hard to use. You know the old saying – we have all the answers – they’re in there somewhere – we just can’t find them. To get there, we must continue to advance our Broker construct – and leverage Automation and Machine Learning. So this is where we could use your help – because we need greater focus by industry and academia – to mature these efforts into long-lasting and accessible capabilities – to elevate us.

Success in this area is essential – and attainable – and we are acting – now. Since the last symposium, we’ve launched dozens of Triple A projects. One recent development was a proof of concept with two specific goals:

- Automate our imagery observations – from image pixel to object identification.
- And automate text reports related to those observations – from exploitation to documentation.

The first goal required using hundreds of historical data points to train the machine to identify objects of interest. Once the machine learned to identify these objects, they were automatically populated into the database. This has yielded more than 3,000 human-driven, computer-generated unique database updates. This may sound straight-forward. It is not – especially as we scale this across our enterprise. It is profound. And it is our future – today.

Currently, an expert reviews and approves the reports. But once we have the governance structure in place -- with acceptable accuracy levels – we will fully automate – from image to all-source databases and intelligence repositories. I have one major objective when it comes to all of this.

We plan to apply AAA to every image we ingest at NGA by the end of this year. That is 252 days away. I have some teammates who believe we can do it much faster. And here’s another area in which we must have your help. Of course, the real point of pursuing automation and AI is not simply because we can – rather, it is to better carry out our mission – to better anticipate opportunities – and better foresee threats. Relentless curiosity will remain the core requirement – a must-have trait.

And by the way, to hear more about AAA, go see Dave Gauthier’s Speaker Spotlight at the NGA Booth at 11:30 on Wednesday.

And now – a true Machine Learning expert – Samuel Dooley.

[MR. DOOLEY’S STORY BEGINS]

I joined NGA through a SMART Scholarship – a program that pairs students with DOD agencies. I was at the University of Chicago, and am just about to begin my Ph.D. At NGA, I work on computer vision and Machine Learning, and my focus is on releasing data to advance the state of the art in object detection in overhead imagery. To accomplish this, NGA partnered with the Defense Innovation Unit Experimental – DIUx – in Silicon Valley – to release the xView dataset. It’s the largest publicly available dataset of objects in satellite imagery. xView is now available to academic groups, companies, and individuals – to train algorithms that automatically detect objects in those images.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

[MR. DOOLEY'S STORY ENDS]

Thanks, Samuel.

Our GEOINT Services approach continues not only to deliver new things -- it also shows us how to do new things. The next two examples were developed under the leadership of our Chief Information Officer – Tanya Pemberton.

This is the NGA Warfighter Support team, led by Jon Estridge in the center of the picture. And there he is in the front row – leading the way as usual. When Amazon upgraded their Snowball storage devices, they embraced disruptive innovation to respond to CENTCOM and PACOM needs.

A few weeks ago, our team delivered this innovation to the tactical edge in South Korea. Hosting applications on an Amazon Snowball had never been done before. And PIXIA created the software to rapidly handle large files – and to put those files to warfighting use.

I saw this firsthand last month in Afghanistan. So, the art here was re-imagining a storage device. And the science was developing intuitive, cloud-native applications that can be hosted on an edge device. A shout-out as well to Boundless for their key role – and to welcome their recent headquarters move from New York City to downtown St. Louis.

This is the iSpy! Team.

They developed a lightweight, web-based, imagery streaming service that requires no licensing or special training. It provides an electronic light table to access and use imagery using our cloud environment – any here a SIPR or JWICS web presence exists.

So we can put imagery and the iSpy service in one box – and throw it on a truck – or a ship – or a C-130 – and have NGA products and services anywhere – anytime.

This is the PISCES Team at Southern Command – pictured are NGA embeds, the J2 GEOINT Division, and industry partners from 3GIMBALS – all leveraging Planet daily imagery. PISCES is an algorithm to help analysts understand patterns of life in key ports in Latin America and the Caribbean. It can count ships in the open ocean – but it was designed to do more – to monitor port activity and capacity.

This the Vector Tiles team. Vector Tiles trims down geospatial data so it's more responsive – and more usable to those with reduced or degraded connectivity. Vector Tiles load quicker – a lot quicker -- while retaining the attributes of traditional vector data. By the way, their T-shirts refer to the saying: "No cause is lost ... if there is but one fool left to fight for it."

Here are the Watchman and NDAAS teams – NDAAS stands for NSG Data Analytic Architecture Service – which is our scalable automation cluster. Watchman enables analysts to apply state-of-the-art deep learning – and quickly process large amounts of images – with no specialized knowledge. And it delivers automated reports – around the world and around the clock – based upon user-generated areas of interest.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

This is the NOME team -- NSG Open Mapping Enclave. NOME uses Volunteered Geographic Information to create, assemble, and disseminate crowd-sourced geographic data. It's like Waze and OpenStreetMap allowing users to share relevant information in real time. If a soldier on patrol identifies a new police station in a neighborhood, she can automatically add that police station to the map. That in turn updates the shared NOME database, so all partners can see the change immediately.

In Afghanistan, this gives General Nicholson a common view where all coalition forces – including our Afghan partners – can work simultaneously with the same foundation.

Our teammate Jim Hicks will demonstrate NOME at the NGA Booth – today at 3 – and tomorrow at 1:30.

Last but not least, this is the team responsible for creating Escape & Evasion Charts for downed pilots. They make a durable map designed to help someone trapped behind enemy lines, in basic survival and evasion. It's a tried-and-true mission.

I'm proud of all of these teams – and all that they've accomplished. They are literally designing our future.

Here's our next speaker, Dr. Ferede.

[DR. FEREDE'S STORY BEGINS]

After graduating from the University of New Mexico, I worked in government at the Los Alamos National Lab and the Super Collider; and in industry, including San Diego, supporting NGA. I joined NGA in 2003, and I received my Ph.D. at George Washington University, with the Agency's help, while working full-time. I'm now the Lead Data Architect for both NGA and for the entire Intelligence Community. My job is to develop a reference data architecture for the IC. It's important that we share and integrate our intelligence across the IC. We all need to be on the same sheet of music, and use interoperable services on the reference data architecture.

[DR. FEREDE'S STORY ENDS]

Thanks, Haregu – yes, we all need to be working from the same blueprint.

Dr. Andy Brooks is a critical part of our future – because he's helping to get our workforce data-enabled and data-empowered. As our first Chief Data Scientist, Andy is a trailblazer – as you can see on the screen. He came from the University of California, Berkeley – where he earned his PhD – and helped found its leading graduate data science program. Before that, he worked in the San Francisco tech industry –growing startups – and doing industrial research.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatGEOINTAgency | @NGA_GEOINT

Tomorrow at 1, Andy will be our Speaker Spotlight at the NGA Booth. He'll cover the Data Corps – which is a new team that's transforming how we leverage data and technology. The Data Corps stood up in December with 5 members – we are at nearly 20 today – and we plan to get to 80 by the end of the September. This is light speed for the government. But their ultimate goal is to put themselves out of business – because their efforts will transform our workforce into data experts. Andy will also cover the Explorer Program, where he's recruiting experienced tech industry professionals to help us solve our data and technology challenges. These are short-term assignments where you can serve the government – almost like a stint in the Peace Corps – and you can do it without a security clearance.

Here's our next member of Team GEOINT – and he'll introduce himself.

Hello my name is Specialist Kevin Wolberd from 3rd Infantry Division, currently supporting DCOS OPs J2 GEOINT in Bagram, Afghanistan. I create a variety of full spectrum geospatial analysis products. We conduct GEOINT operations for Operation Resolute Support. These efforts are utilized by the 39 NATO Allied partners for operational planning, support to Afghan security forces, ensuring the rule of law and good governance for the people of Afghanistan.

Thanks, Kevin.

Last year, I told you that we needed to better partner with the private sector – via public-private partnerships. Today, I am proud to unveil a new NGA service: GeoWorks. It is a much easier way to access and work with NGA's data. Now any US company – large or small – or academic institution – or interested individual – can gain access to our data and tools – and build something. Now I'll give you a short tour.

Here is the landing page – you sign up with login.gov. You enter some basic contact information – tell us about your interests – and accept the Terms of Service.

Now we are in. The site is simple – with three components:

- Data
- Tools to work with that data – and your own
- GEOINT opportunities in which you use both

We've loaded two dozen NGA data sets -- plus numerous open source data sets – and we'll add more.

On the tools page, you will find a data viewer. And you can access Jupyter Notebook, Tensor Flow and other tools via Symphony – developed by our partner MITRE.

Finally – the Opportunities page – where you can discover ways to engage with Team GEOINT. Right now, our first GeoWorks opportunity is a hackathon with SOCOM via their Sofwerx lab. In the future, expect this page to fill up – and to be the primary location to access NGA engagement opportunities.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

GeoWorks is not just a new website – it’s a new way we are doing business. Christy Monaco’s Office of Ventures and Innovation and Tanya Pemberton’s GEOINT Services used truly agile approaches to create this site... from concept to launch – in just eight weeks.

Our Chief Technology Officer and overall inspiration for GeoWorks – Dr. Anthony Vinci – will expand this discussion at the NGA Booth, today at 1:30. Also, our GeoWorks lead – Andy Spage – will be available for in-depth questions at the NGA Booth, tomorrow at 3 and Wednesday at 12:30.

Here’s our next Team GEOINT speaker – to bring us his perspective from England – where he leads a multinational team – Darren Muff.

[MR. MUFF’S STORY BEGINS]

Hello. I’ve been doing GEOINT now since the early 1990s. I’m part of the U.K. team that’s been set to challenge to develop a 21st century GEOINT platform that will use Carbonite-2 and its motion video capability, to go with a wide range of classified and unclassified sources. We’re taking the UK’s first steps towards a national space ISR infrastructure, designed from the ground up to be both “advanced” and “niche.” And to augment the capabilities of our Allies, rather than to reproduce them. We believe that in doing this, we can make a richer, more predictive intelligence product that we can more rapidly disseminate to the decision-maker, wherever they are in the world.

[MR. MUFF’S STORY ENDS]

Thanks, Darren – and I love that GEOINT selfie.

And now, the last of my co-keynoters, Jessica Sweet.

[MS. SWEET’S STORY BEGINS]

I was a STEM graduate research assistant at the University of Minnesota, studying abroad in Tunisia. Then the Arab Spring happened and I was evacuated to Morocco. That got me interested in global and national security - so I responded to a call from an NGA recruiter. I was hired as a Data Scientist, and now I'm the program manager for the IC GIS Portal - which houses data from 130,000 customers across 55 different agencies in the Cloud. It's the largest GIS implementation in the world, and it's on four security networks - Top Secret, Secret, protected internet, and worldwide web - and it's expanding to other networks and deployments on edge node technology. Users across the IC and DOD can easily access data where they couldn't before. They can create, secure, and manage geographic assets, and connect users with apps to accomplish their mission.

[MS. SWEET’S STORY ENDS]

Thanks, Jessica – you link all of our teammates together today via the IC GIS Portal. And I’d like to welcome back to the stage all my relentlessly curious fellow speakers. You are looking at our future. And this is what winning looks like.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatGEOINTAgency | @NGA_GEOINT

Haregu, Chelsea, Jamie, and Samuel will give “Lightning Talks” in the Innovation Corner – on the opposite side of the Exhibit Hall from the Government Pavilion – and expand their stories. And for those who’d like to focus on Acquisition, I can’t recommend highly enough that you attend our panel on Acquisition reform at NGA. It’s on the Government Pavilion stage, Wednesday at 1, and will be led by our Deputy Director, Justin Poole. And our new Associate Director of Capabilities, Jennifer Schnarre, will be there, too.

Only one person has ever been awarded a Nobel prize in two separate fields of science – her name – Marie Curie.

And she said: “I am among those who think that science has great beauty.... If I see anything vital around me, it is precisely a spirit of adventure, which seems indestructible and is akin to curiosity.”

The beauty of art and science – and science and art. The intersection of adventure and curiosity – on that road to innovation.

The historian Will Durant wrote: “Maps – like faces – are the signature of history.”

Those maps provided content within context -- to convey insight and confidence. And they were created by expert scientists and pure artists – our predecessors – who remain inspirations to us. And they mattered. They made a difference. They showed the way.

True visionaries – like Leonardo – have always been willing to overreach – and to fail forward – to achieve their goals. For example, he never built a working flying machine.

And we won’t succeed each time – but I wouldn’t want to be anywhere else than on Team GEOINT. There’s a little da Vinci in all of us.

Together, we don’t just convey “the when and the where” of the most important national security issues of our time – we also deliver “the who and the what” – and “the why and the how.”

And then – most importantly – what’s next? Just as Gutenberg connected the world in a way that accelerated the Renaissance, our more transparent world has brought us great advantage – a 21st century renaissance. And it has brought unintended threats. In the face of such threats, pulling back or slowing down cannot be the answer.

While we do look backwards in time, we’re a field that drives upward and onward – continually pressing out to the horizon. I am grounded in the belief that truth and freedom thrive in the light. And, when illuminated, evil is exposed and defeated.

Team NGA – Team GEOINT – have always been enduring beacons to expose that evil – that threat – and enlighten those we serve – to protect America and our partners.

We will be able to accomplish this – all of this – thanks to our relentless curiosity. That was Leonardo’s arc. And it’s ours too. We will continue to innovate through art and science – and science and art.



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

nga.mil | 571-557-5400 | publicaffairs@nga.mil | FB: NatlGEOINTAgency | @NGA_GEOINT

Like our predecessors in the past – and like our successors in the future – we will push to the edge and beyond. May we at Team GEOINT – continue to know the Earth, show the way, understand the world. In this era of increasing uncertainty, may we continually reach out to the horizon – to bring the future into focus – and deliver true decision advantage for America and her Allies.

Join us – we need you – and I thank you.

###