



NATIONAL GEOSPATIAL-INTELLIGENCE AGENCY

Office of Corporate Communications

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

**Remarks as Prepared for
Letitia A. Long
Director, National Geospatial-Intelligence Agency
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“NGA: Yesterday, Today, and Tomorrow”

Thank you, Marty Faga for that kind introduction. I am especially pleased you invited me to speak with you here today. I hope that our meeting serves as a springboard to a stronger relationship. We are looking forward to hosting your 2014 annual meeting at our NGA Campus East in Springfield. I sincerely appreciate AFIO’s unique mission to educate the public and our young people about career opportunities in the Intelligence Community.

We need your quiet approach to informing the public and presenting the truth about the rewards of national service to our young people. Your staunch support helps attract the most talented young minds in the nation to our agencies. We need those brilliant young minds – and your support – more than ever.

Why? Firstly, as you know, we live in a world of rapidly evolving and ever more complex threats. DNI Clapper calls them the most challenging range of threats the nation has ever faced. The constant threats of counterterrorism, counterproliferation, counterintelligence, and cyber require the Community’s constant attention. At the same time, we must constantly evolve to stay a step ahead of those threats. To evolve more rapidly than these threats, we must achieve the DNI’s highest priority of the intelligence integration. For this truly integrated community to emerge will require the fresh insights and multi-tasking skills of the next generation of analysts that AFIO can help attract to our agencies.

Secondly, NGA is undergoing a tremendous transformation. And we cannot succeed in our transformation without the talent, intelligence, enthusiasm, and diversity that today’s brilliant young people will use to energize our bright tomorrow. I especially welcome the opportunity to share with you why NGA is an excellent place for these young professionals to have successful careers. And I want to discuss with you how we continue to support the warfighter, the intelligence analyst, the decision makers, and the Community in this era of rapid change. Difficult times can create the greatest opportunities. NGA is seizing these opportunities through our Vision and our Strategy: To support our very broad customer set, drive true intelligence integration, transform the

GEOINT discipline, and to achieve the game-changing vision to “Put the Power of GEOINT in the Hands of the User.”

Let me spend a few minutes telling you about NGA – to remind you who we were and where we came from, where we are now, and where we are rapidly moving toward. First, for those who may not be familiar with NGA, with what geospatial intelligence is, allow me to describe GEOINT and what we do.

Geospatial intelligence – GEOINT – is a highly evolved intelligence discipline that describes not only what is happening anywhere on Earth, where it is happening, and what it is happening, it also reveals how it is happening, why it matters and what may happen next. NGA delivers world-class GEOINT that provides decisive advantage to warfighters, policy makers, intelligence professionals, and first responders.

Remember we are not your parents’ Defense Mapping Agency (DMA) or National Photographic Interpretation Center (NPIC) anymore! In our history, the Defense Mapping Agency, which was established in 1972 in Bethesda and St. Louis, made maps and charts for the Army, Navy, and Air Force for 30 years. The National Photographic Interpretation Center was the joint imagery analysis agency studying images from the U-2, SR-71 Blackbird, and Corona satellites from the 1950s until the 1990s. In 1996, Congress united these two main pieces with six other components from across the community to form the National Imagery and Mapping Agency – NIMA. The purpose was to maximize the strengths and effectiveness of integrating the foundation data from mapping and the analytic precision from imagery.

Between 1996 and 2001, the groundwork for creating the GEOINT discipline was laid, often overcoming cultural misunderstandings, geographic separation, and normal resistance to change. But the events of September 11th changed everything. And under the leadership of then-Director Clapper, NIMA was transformed into NGA with missions to fight two wars simultaneously as we continued to carry out our Title 10 safety of navigation and Title 50 national intelligence responsibilities.

Between 2002 and 2010, during the Iraq surge and the Afghanistan surge, by every account from the Combatant Commanders and the troops on the ground, NGA provided superb support to the warfighter under the fine leadership of Directors Clapper and Admiral Bob Murrett. And we upheld every other mission, especially strategic intelligence over denied areas like North Korea and Iran, and disaster responses like Hurricane Katrina and the Haiti Earthquake. By 2010, NGA had emerged from its defining decade and could rightly claim its place at the table as a vital contributor to the national security. NGA had arrived.

However, our gains made during that decade only showed us that we faced even more daunting threats along with fiscal challenges in the future. Starting in 2010, we studied the world situation, anticipated the current budget crisis, foresaw the rapidly evolving threats and opportunities social media has created, and anticipated the rebalance to the Pacific. We understood that with the explosion of the internet, cellphones, video, and

the like, geospatial information would become ubiquitous – and a vital, if not the essential, source of intelligence.

In this rapidly evolving world, if NGA were to continue to fulfill our mission of providing timely, relevant, and accurate GEOINT, we knew we had to change – and change dramatically. That fundamental change is stated in our Vision: “Putting the Power of GEOINT in the Hands of the User.” We are realizing that vision by achieving two goals: provide online, on-demand access to our GEOINT knowledge; and broaden and deepen our analytic expertise to produce new value for our customers.

We are not just a GEOINT data store where you go shop for the latest map, or an analysis cell where you work with a group of analysts to solve a problem. We are BOTH at the same time and so much more. Today, we are in the throes of building a new NGA around, through, and on top of the architecture of the old NGA while we keep the whole enterprise running smoothly.

Essentially, we’re building a stealth bomber around a fighter jet while we’re flying combat missions. We are building a seamless, dynamic Map of the World that will integrate all of our foundation GEOINT and safety of navigation data, feature data, imagery, and intelligence analysis into one common frame of reference. This Map of the World will put GEOINT at the heart of – and shape the core of – the Community-wide object-based production environment. This environment is a major new DNI core intelligence business process based on the simple idea of “one object – one time.”

Using standard data structures and formats, all data about any object of interest—any person, place, or thing – can be easily shared with and accessed by anyone with the need to know. Imagine the fast, efficient work that SIGINT, HUMINT, GEOINT, and MASINT analysts can do when they can have in one place and one time all the most up to date information about the same subject! This will mean a revolutionary change in integration and collaboration.

NGA analysts have already begun to receive the benefits of the early stages of this integration with an expanded integrated working group concept (IWG) combined with the new integrated analytic environment, or the IAE as we refer to it. Since 2011, we have set up and tested three IWGs – one for Iran to solve complex intelligence questions, one for disaster response to work in the unclassified environment, and one for Yemen-HOA to address gaps in foundation data and content.

The IWGs broke down the stovepipes across the agency and brought together analysts, source collectors, application developers, security specialists, imagery scientists, researchers, HR reps, trainers, and anyone who touched the topic into one space to gain synergies from that close constant contact. We found that the real benefits came from those daily “ah-ha” moments of personal interaction, the shortcuts that saved days or weeks, the questions answered in minutes rather than days or never. We are now figuring out how to scale these principles to an entire analytic enterprise. The IAE drove two major changes – First, it dramatically shortened the acquisition cycle for

applications from years to months through a series of “60-day drops” developed with the analysts. And it created an online presence where an analyst could put all of her apps, databases, products, news services, etc. to save enormous amounts of time searching for and arranging data.

While the first steps for The Map of the World, the experimental working groups, and the IAE made excellent starts, they are only the beginning. NGA is changing more rapidly than any other intelligence agency. We at NGA have done more in our short, 17-year life as an agency to reinvent ourselves, to embrace change, and to encourage innovation. And the changes are just beginning. We are transforming NGA from a static producer of maps and imagery products into a highly evolved, dynamic provider of GEOINT content, analysis, and services.

NGA is emerging from the shadows into the forefront as the foundation, the catalyst for the integration of all of the intelligence disciplines for one simple reason. Everything, every one, and every activity on earth has a time and a place—a spatial-temporal or geo-reference. This unique spatial-temporal reference anchors everything, everyone, and every action on the earth. It creates a unique framework for each object. And all of the information we can gather about that object – signals, HUMINT, human geography, electronics – can be tagged to that object. This geo-referenced “one object one time” acts as the foundation for integrated intelligence analysis across all the disciplines. As that foundation, GEOINT anchors all the INTs in the earth.

And we are the Community leader in advanced analytics that is deriving Big Value from Big Data through a variety of advanced methodologies. For example, Activity Based Intelligence – ABI – enables our analysts to use multiple INTs to track activities and identify patterns that discover essential unknowns, such as hidden facilities or targets that adversaries would rather keep secret. NGA’s advanced analytic methodologies are moving toward a collective sense-making environment in which analysts participate in an iterative, collaborative process where they “live within the data.” Rather than focus on targets and points on the earth, they focus on observations, relationships, assessments, and objects laden with data from many INTs. They work together in virtual and physical integrated working groups to discover unique insights that give decision makers more time and space to act faster and make wiser decisions.

Given these rapid changes, NGA continues to serve the broadest national security mission as both a Combat Support Agency and a National Intelligence Agency. NGA is the premiere provider of geospatial intelligence to the Defense, Intelligence, and civilian communities. We constantly serve these prominent missions:

- The U.S. military – from the Combatant Commander to the warfighter on the ground deployed around the world and in harm’s way.
- Policy makers who require unique insight and strategic intelligence.
- Mariners and pilots who depend on our foundation data and analysis to ensure their safety of navigation at sea and in the air.

- International and coalition partners in military and humanitarian operations across the globe – for example the earthquakes in Haiti and Pakistan; the earthquake, tsunami and nuclear disaster in Japan; and coalition support in Libya, Iraq, and Afghanistan.
- First responders as they prepare for, respond to, and recover from natural and manmade disasters. One area in which we have made great strides in meeting our goal of online, on-demand access has been in working with first responders. Consider our recent response during the Monroe, Oklahoma tornado disasters. In the past, we might have deployed 20-30 people for days and produced thousands of static maps. This time, we produced no hard copy map atlases, and we sent 5 people for a few days. FEMA and local first responders constantly interacted with our databases, our analysts at headquarters, and with each other through our online dashboard/landing page. These consumers acted as contributors and producers of GEOINT as they fed their data live from the ground to our databases. These integrated efforts saved time and money, saved lives by directing relief crews to where they were most needed, and helped provide relief to the disaster-stricken far faster than ever before. In hours rather than weeks.

But while tremendous progress has been made, we need to accelerate our pace of change and make a shift from our traditional strengths to our future.

In our drive to lead the community toward integration, I believe we share three imperatives with AFIO. My main challenge to you – first and foremost – this transition requires a highly skilled, diverse workforce that understands not only intelligence analysis, but especially intelligence integration. And they must have the skills and passion to make it our new reality. I urge AFIO to play an even stronger role in promoting national security service to the next generation. In general, we need a diverse, agile workforce with critical skillsets in big data analytics, visualization, and advanced sensors. In particular, we need world-class experts in geomatics, global GEOINT content, emerging technologies, and advanced analytic techniques.

Secondly, you have a major role to play in encouraging policy makers to support and resource intelligence integration. It is the DNI's highest priority. It is the only way we can keep a step ahead of our adversaries in our complex future. I urge you to understand its impact, support it at all levels, and encourage the next generation of intelligence professionals to lead it.

Thirdly, I ask you to support our vision of GEOINT as the catalyst for intelligence integration. The work of every intelligence discipline is anchored in GEOINT. Every signal emanates from someone or something, somewhere. Every cyber network has an infrastructure of real people, places, and things. Every human source, every human activity happens somewhere, sometime.

And NGA and our multiple layers of GEOINT knowledge give all the INTs the context, the insight, and most of all the experience they need to discover what they might never know. NGA is not only willing to lead – we are leading intelligence integration. We have

built our program and budget toward that end. With our partners at the DIA, we have taken the lead role in the Intelligence Community's Information Technology Enterprise – IC ITE – the heart of the Community's effort to truly integrate information sharing and common services, to break down the stovepipes that contribute to our analytic failures.

Together we must tackle these imperatives and accelerate the pace of change. We must bring a sense of urgency to our imperatives and take real actions now to make a real difference. Again, I sincerely appreciate the invitation to speak with you today. And we at NGA are committed to hosting a great annual summit for you in 2014. Now I look forward to a thought-provoking discussion on the future role of NGA and GEOINT. I would be happy to take your questions.

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