» AWARDS » FLYNN KEYNOTE » ACTIVITY-BASED INTELLIGENCE SHOONDATL4

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THURSDAY OCT 11 2012

Young Innovators Panel

To Make the World a Better Place, Sometimes You Have to Break the Rules

oderator Todd Huffman opened Wednesday morning's Young Innovators Panel on the converged future of geospatial intelligence with an anecdote of optimism that set the tone for the talk.

"Over breakfast this morning with these four innovative and interesting people, after an hour of conversation the word sequestration had not come up a single time."

Each panelist, he went on, has a task to do and that's to make the world a better place. They are focused on that and do whatever it takes to get the job done.

The first panelist to speak was Alex Cooper, senior systems engineer with SAIC. "We've all talked a lot about open source. It's been a big discussion, but it does drive innovation, it does drive young engineers."

He likened it to a playground in which new solutions can be explored, though it's only one piece. The other piece is process framework, to do agile development in a way that is controlled chaos.

It's not just a change in paradigm, he explained, there is more than just software development that needs to go

📑 see Young Innovators Panel, p. 9

powered by **Raytheon**



Elizabeth Lyon of the Army Corps of Engineers spoke at the Young Innovators Panel on Wednesday morning.

"Look, we're just going to break your rules anyway. I hate to break it to you, but we're not going to listen. We're going to keep doing what we have to do. We'll be inventive about it and we'll do the best we can, but we're not going to let your rules slow us down." -Shadrock Roberts, senior GIS analyst, USAID



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REAL-TIME LIDAR Ball Demonstrates Total Sight Map Creation and Dissemination

An attendee demos DYNAMAN-DIME, a tool used to emulate live/virtual/ constructive flight environments, at the Ball Aerospace booth.

all Aerospace (Booth 1417) is demonstrating its Total Sight realtime, full motion color LIDAR system at GEOINT 2012. Designed for the DoD for time critical missions, the digital elevation map creation and dissemination system is intended to prevent data latency for ISR applications. However, the system has civilian applications as well. A recent helicopter flyover of the city of Boulder to test Total Sight provided immediate information on potential flood prone areas due to fire.

On Labor Day 2010, Boulder experienced one of the largest and most destructive forest fires in its history. The Fourmile Canyon fire burned 65,000 acres and destroyed 169 homes. On July 12, 2012, Ball Aerospace flew a helicopter equipped with Total Sight over the burn area. The survey data rapidly mapped in 3D the burned terrain, which in turn contributed accurate data for floodwater prediction models. This will allow the creation of full color, three-dimensional videos to demonstrate flooding. These videos will help officials communicate with the public via video products not previously available.

"We provide the software and signal processing to do fusing, orthorectification, and georeferencing in real time, providing actionable intelligence to the user instead of just raw LIDAR data," said Roy Nelson, laser applications advanced systems manager for Ball.

In 2011, Ball demonstrated the unit at a U.S. Special Operations Command tactical network testbed exercise at Camp Roberts, Calif. The system sent fused, full motion 3-D imagery, both day and night, to the tactical operations center.

"It's the speed of the overall collection, processing exploitation, and dissemination process that sets Ball's system apart," said Nelson.

Ball is also demonstrating DYNAMAN-DIME, a tool used to create live/virtual/constructive flight environments in order to prepare for weather, latency, and other hazards that may hinder airborne data collection.

E COOR EXHIBIT HALL HIGHLIGHTS

AIR FORCE GEOINT Five USAF Organizations Represented at GEOINT 2012

ive different organizations will be represented in the U.S. Air Force (Booth 637) exhibit at the GEOINT 2012 Symposium. Take a few moments to learn how each is related to GEOINT.

Air Force A2Q

Air Force A2Q is the Intelligence, Surveillance and Reconnaissance Innovations Directorate for the Deputy Chief of Staff for ISR, headquartered in Washington, D.C. A2Q develops and assesses innovative visions and technologies to answer ISR and operational needs for combat and peacetime operations. They are responsible for the" Innovation Program" which includes use of imagery and mission planning data to facilitate selected operations. Air Force A2Q will be demonstrating their Eagle Vision capability with the outdoor exhibits.

Air Mobility Command

Air Mobility Command (AMC) is a major command headquartered at Scott Air Force Base, Ill. AMC provides worldwide cargo and passenger delivery, air refueling, and aeromedical evacuation. The command also transports humanitarian supplies to hurricane, flood, and



Air Force Tech. Sgt. Kyle Kikuchi gives Christopher Phillips, Air Force GEOINT technical advisor, a demonstration of the Eagle Vision remote sensing capability.

earthquake victims both at home and around the world. GEOINT information is important for supporting its worldwide flying mission. AMC uses Google Earth as a GEOINT tool on a daily basis. AMC is leading the initiative in the adaptation of Google Earth 4-D visualization, stand-alone server applications, and portable hard drive solutions for the Mobility Air Force community.

Air Force Intelligence, Surveillance, and Reconnaissance Agency

The Air Force Intelligence, Surveillance and Reconnaissance Agency is located at Lackland Air Force Base, Texas. The Agency's units comprise the pre-eminent enterprise that provides ISR to the right person at the right time, creating an accurate picture for decision makers. GEOINT is an important source of that multi-intelligence picture. The Agency oversees both NASIC and the AF GEOINT Office, along with other intelligence units throughout the Air Force.

National Air and Space Intelligence Center

The National Air and Space Intelligence Center is located at

Wright-Patterson Air Force Base, Ohio. NASIC is a leader in predictive intelligence to ensure the nation is at the cutting edge of understanding foreign threats to U.S. air and space operations. In regards to GEOINT, NASIC is a leader in providing high quality analysis, research and development, and analytical production on literal and non-literal GEOINT, as well as other intelligence disciplines for the Intelligence Community. NASIC will be demonstrating the N-SME tool, which stands for NASIC Single/Multi INT Explorer.

Air Force GEOINT Office

The Air Force GEOINT Office represents the Air Force at the National Geospatial-Intelligence Agency. The office provides an integrated and coordinated GEOINT engagement among Air Staff, the National System for GEOINT, the Allied System for GEOINT, and NGA Functional Managers, as well as assists in integrating Air Force GEOINT policies, plans, programs, resources, capabilities, and research and development and testing initiatives into the National System for GEOINT. Additionally, the office serves as the Unified GEOINT Officer providing transparency of Air Force GEO-INT capabilities and production to the National System for GEOINT. **11**

» HIGHLIGHTS AND NEWS

GRADUATE STUDENT HONORED

Lt. Michael P. Murphy Award Bestowed to DIA Analyst

enn State University (PSU) recognizes achievement by a graduate student who is serving or has served in the U.S. Armed Forces or with the Intelligence Community with its Lt. Michael P. Murphy Award in Geospatial Intelligence.

Murphy was a PSU alumnus and U.S. Navy SEAL who was posthumously awarded the Medal of Honor for his actions in Afghanistan. On behalf of USGIF, GeoEye Foundation, and the faculty and staff of PSU, this prestigious award recognizes those who have demonstrated exceptional contributions to the discipline as part of the masters program at PSU.

The 2012 award winner is Donna Bridges, an allsource intelligence analyst at the Defense Intelligence Agency (DIA). Bridges was presented the award during Wednesdays' general session at GEOINT 2012, immediately before DIA Director LTG Michael Flynn took the stage.

"The Michael P. Murphy Award was started by Penn State in honor of someone who made the ultimate sacrifice and I am both very honored and humbled to be recognized with this award," said Bridges.

Bridges is also a recipient of the 2010 USGIF Academic Award. Prior to joining the DIA, she provided ricochet analysis and range sustainability planning for the National Guard and served as a Research Assistant at Penn State Dutton e-Education Institute.



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Lt. Gen. Michael Flynn, director of DIA, with Dr. Todd S. Bacastow presents Donna Bridges with the Lt. Michael P. Murphy Award in Geospatial Intelligence on Wednesday.

SOFTWARE FOR SCHOLARS

Intergraph Donates Licenses to 2012 USGIF Scholarship Winners

ntergraph Corporation recently donated free educational software licenses of ERDAS IMAGINE and GeoMedia to all 25 recipients of the 2012 USGIF Scholarship Program awards.

In addition to receiving the software licenses, scholarship winners will receive eight hours of free instructor-led online training that introduces them to both software suites.

Intergraph is a sustaining member of USGIF, and is actively involved in the USGIF Scholarship Committee. As part of Intergraph's commitment to education, the donation aims to empower the next generation of GEOINT innovators and provide them with the proper tools.

"The USGIF scholarship recipients represent the best and brightest

and are the future leaders and innovators of the GEOINT Community," said Jack Pellicci, president and CEO of Intergraph Government Solutions, and a retired U.S. Army brigadier general. "We recognize that the future of our industry is linked inextricably with our educational institutions and student leaders. By working with these students, we can collectively enhance the geospatial intelligence tradecraft, as well as build a more solid foundation for advancing the role of geospatial information management."

The USGIF Scholarship Program has awarded a total of \$584,000 in scholarships since 2004. This year, a total of \$104,000 was awarded to 25 recipients ranging from graduating high school seniors to doctoral students.

MISSION DATA ANALYTICS

FROM A TO ZETTABYTE.

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» HIGHLIGHTS AND NEWS



SUNSHINE STATE CLOSING CELEBRATION

hrow on your flip-flops, shorts, and best Floridian shirt for a casual ending to the GEOINT 2012 Symposium. The closing celebration will take place this evening from 7 to 10 p.m. on the Coquina Lawn and the adjacent foyer and rotunda. Where else can you have your picture taken with an alligator or exotic bird? There will be great food, frozen drinks, and live music. So enjoy a final evening with friends and colleagues under the glass dome of the Gaylord Palms. It's a great opportunity to network and discuss the information you've absorbed during the week. Or, to try your hand at tiki hole-inone golf, hula hoops basketball, and coconut bowling!

The GEOINT 2012 Show Daily is brought to you by *trajectory*, the official publication of the United States Geospatial Intelligence Foundation (USGIF).



USGIF

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510001899101111010 RIGHT NOW THE ABILITY TO INNOVATE IS NOT JUST CRITICAL TO SUCCESS. IT IS SIMPLY A REQUISITE FOR SURVIVAL. BUT THE NATURE OF **INNOVATION IS** CHANGING. IT IS LESS ABOUT 'EUREKA MOMENTS' OR SILVER BULLET **BREAKTHROUGHS** THAN ABOUT **RESPONDING QUICKLY** TO CHALLENGES, ADOPTING NEW IDEAS AND MOVING FAST TO SEIZE OPPORTUNITIES.

- Ruth Spellman

ACTIVITY-BASED INTELLIGENCE

Diverging Opinions on the Notion of ABI

sers, producers, theorists, and academics, were challenged to talk about "Activity-Based Intelligence: Delivering Contextualized GEOINT," during a Wednesday afternoon breakout session.

"ABI is a discipline of intelligence where the analysis and collection focuses on the activity and transactions associated within an area," said John Morris, chief scientist for Riverside Research.

But wait a minute.

"The Army does not recognize ABI as a doctrine," said Maj. Gen. Steve Fogarty, commanding General of the Army's Intelligence and Security Command. "We refer to it as real-time collec tion and fusion."

The panel dissected, defined and thrust the concept of ABI

into the future. Panelists included Morris, Fogarty, Barry Tilton of NRO, Dr. Gary Condon of the ISR Task Force, Mark Choiniere of the NGA, and David Gauthier, also with the NGA.

Each had a different viewpoint, often depending on their role, and the place from which they approach the process.

And each supported the benefits of ABI, which operates on the principle that many people and activities are predictable. ABI takes time to develop, but it can't take too much time.

"Whatever you call ABI, at the end of the day it has to make sense," Fogarty said. "It has to be delivered in a format and in time" for the decision-maker to act upon it. "Otherwise, we're going to be shooting behind rabbits, or we're going to be late with humanitarian relief."

GEOINT THREATS

Panelists Discuss Risks to the GEOINT Industrial Security Enterprise

ndustry serves as the backbone for our national security and empowering the warfighter. And with more than 13,000 cleared facilities across the globe and 1.2 million cleared contractors, we are facing new and constant threats to the industrial security enterprise.

"We live in an information age where our adversaries have easy access to classified information from industrial unclassified networks," said Stan Sims, director of the Defense Security Service (DSS). "This is the low hanging fruit for our adversaries and we need to take back these threats with more accountability."

Managing and mitigating these vulnerabilities was the key theme highlighted during the GEOINT 2012 breakout session titled, "Threats in the GEOINT Industrial Security Enterprise."

Comprised of subject matter experts from DSS, NGA, NSA and industry partners, the panel called for industry to play a larger role in managing and mitigating threats while sharing this information more efficiently with government customers. In addition, enhanced partnerships and collaboration between industry and government is required to meet this critical need.

"The 'gotcha' days are over and we are not out to get industry," added Sims. "We want to partner with industry to help them support our national security while also protecting their intellectual property."

As the panelists pointed out, our national security is being compromised at an alarming rate and new methods for managing massive volumes of classified information is paramount.

"Our adversaries are eating our lunch and we cannot accept unacceptable risk," added Sims. \blacksquare



Stan Sims, director, Defense Security Service (DSS) discusses new approaches for managing advanced threats to the industrial security enterprise.

» HIGHLIGHTS AND, NEWS

THE BEST AND BRIGHTEST

The USGIF Awards Program Recognizes Excellence in GEOINT

ach year, USGIF recognizes the exceptional work of the geospatial intelligence tradecraft's brightest minds through the USGIF Awards Program.

Developed to recognize the achievements of individuals and teams involved with the GEOINT Community, the program awards the achievements of those within four distinct categories.

"Our community is driven by passion and we saw this in all of this year's nominations," said Kevin Jackson, assistant vice president for business development at SAIC and USGIF awards subcommittee chair. "No matter what happens, our community remains singularly focused on the mission and we are extremely proud of this year's award winners who exemplify this."

The 2012 award winners are:

1. Top Left: Government Achievement Award - Humanitarian

Information Unit, Bureau of Intelligence and Research, U.S. Dept. of State

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2. Top Middle: Administrative Achievement Award - Helen "DeeDee" Demes, The SI Organization

3. Top Right: Academic Achievement Award – The Washington College, GIS Program

4. Bottom Left: Academic Research Award – George Mason University, Center for Geospatial Intelligence

5. Bottom Right: Industry Achievement Award – DigitalGlobe and the Satellite Sentinel Project

Not pictured: Military Achievement Award – U.S. Joint POW/MIA Accounting Command, JPAC

The award winners are selected by the USGIF awards subcommittee and are recognized each year at the GEOINT Symposium. ******



1. Government Achievement Award – Humanitarian Information Unit, Bureau of Intelligence and Research, U.S. Dept. of State



2. Administrative Achievement Award - Helen "DeeDee" Demes, The SI Organization



3. Academic Achievement Award - The Washington College, GIS Program



4. Academic Research Award – George Mason University, Center for Geospatial Intelligence



5. Industry Achievement Award – DigitalGlobe and the Satellite Sentinel Project

YOUNG INNOVATORS PANEL CONTINUED

agile and rapid. The challenge and excitement is delivering capabilities to the end user in a rapid fashion.

Shay Har-Noy, CEO of Tomnod, gave a personal testimony about the life-and-death usefulness of geospatial information.

A few months ago, some of Har-Noy's friends went missing while climbing a mountain in Peru. In collaboration with DigitalGlobe and GeoEye, friends and family were able to access archive data of the region. They took this data, tiled it, hosted it, put it in the cloud, and used the crowd-sourcing model to recruit friends and family as analysts.

These amateur analysts went through the data looking for footprints, base camps, and disturbances in the snow. In four hours, they identified around 5,000 clues from the imagery. Seven hours later they sent a PDF with this information to Peruvian authorities to help guide the search and rescue effort.

Sadly, the information provided helped find Har-Noy's friends, but they were not alive.

"I tell this story not because it highlights our technology or your technology, but because it emphasizes the potential of what we're sitting on," Har-Noy said. "GEOINT-we take it for granted, how powerful it is. If you put it in the hands of the end user, there are some amazing things that can be done."

In his closing comments, Har-Nov offered his recipe for innovation: 1) Understand your user; 2) Follow your passion; 3) Listen to your individuals.

The third panelist to speak was Shadrock Roberts, a senior GIS analyst with USAID, who expressed his gratitude for being invited to participate.

"This is a really important venue and it's really important for groups like USAID, a humanitarian information unit, to be here." We may work in different sectors and different spheres, he continued, but our focus at the end of the day is an integrated and sensible foreign policy that makes the world a better and more secure place. "I think that's something we can all agree on, and something we can all work toward."

USAID gets less than one half of one percent of the budget, Roberts explained, so it's a struggle to make ends meet. With the reduction of budgets now faced by so many other agencies, some valuable lessons could be learned from USAID.

The importance of volunteers and community participation is vital to accomplishing USAID's mission, Roberts said. Crowd-sourcing solutions are central to workflow, as well as the resources shared by other agencies such as NGA.

Policy challenges are huge, Roberts said, "But at the end of the day, general council can only do so much for you. You just have to decide if you're going to stick your head above the turret and do something new or not."

There are so many people that want to be involved and want to help out, Roberts said, that if you can break out of old models, you can find new ways of doing things. By making the data open, we can also



Moderator Todd Huffman introduces the Young Innovators Panel on Wednesday.

have an open dialogue with constituents.

In government, some of the most important things we can do for innovation, he said, is to stop worrying about the delivery mechanism and packaging it all for customers. Instead, he said, give them open data and tools.

Sometimes you don't know exactly what customers' needs are, he continued, so if you create an environment where people can take those constituent pieces and mash them

up, it becomes a virtuous cycle. "You'll get answers back to problems you didn't even know you had."

The fourth panelist of the day to speak was Elizabeth Lyon of the Army Corps of Engineers, who addressed the "cool" convergence of geospatial, technological, and cultural revolutions.

"We're all here because we believe in the power of GEOINT and the power of geography and the power of geospatial sciences, but we also have some challenges," she said. "We've heard about resources going down, well I say that's great. That's a new challenge. That means we can drive innovation further up."

One of the unique things about this young generation, she said, referring to herself and her fellow

panelists, is we're a relational generation. When you look at the first, second, and third order network, you see how interconnected we are.

But this isn't just about our generation, she acknowledged. We're building off the innovations of the generations that have come before us.

Technology has enabled us to communicate in a lot of new ways, she said, which provides people new capabilities to learn from each other. This is one of the best things about being in an innovative climate.

CANDID COMMENT

In a discussion full of colorful commentary, the Q&A session saved the best for last. Here are some highlights.

"Let us sleep on couches, not on the streets." — Shay Har-Noy

"Open data, open access, allows us to be creative in providing solutions." - Alex Cooper

"The best thing leadership can do is encourage us by giving us a clear vision that is tangible and actionable, and then give us the freedom to pursue that."

-Elizabeth Lyon

» SPECIAL FEATURES

PEACH KEYNOTE

U.K. Joint Forces Commander Discusses the Art of Collaboration



Commander of U.K. Joint Forces Command Air Chief Marshal Sir Stuart Peach discusses why geography matters in his keynote speech on Wednesday.

ir Chief Marshal Sir Stuart Peach, commander of Joint Forces Command for the U.K. Ministry of Defence, provided his perspective on the importance of collaboration among agencies and allies during in his keynote speech Wednesday morning.

Joint Forces Command is an idea of its time, he said. "We are a one-stop command for operations and intelligence." He continued, "My job is to smash those disciplines together, bring them together."

Geography underpins decision-making, he said. Geography matters. "We're at the culminating point for the art and the science of physical geography."

As proof that geography matters, Peach offered a lesson in historical geography. Those who wish to do us harm in Afghanistan today come from the same region as those who fought the Soviets as well as British forces during the 19th century. Over 150 years, geography doesn't change, he said. And people don't change much either. "A good place for an ambush in Afghanistan in 1842 remains a good place for an ambush today."

"A good place for an ambush in Afghanistan in 1842 remains a good place for an ambush today."

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The fusion of multiple intelligence disciplines into one product or one place is really important, but it has to be put into the context of the decider, he said. Fusion is more than a software tool, it is an operational art.

Peach also discussed the lessons learned from Libya last year. When the United Nations and NATO requested Joint Forces Command support in Libya, JFC had to move very quickly to an area that had not been on their radar as a priority.

When attention was shifted to Libya, allied forces realized they had an embarrassment of riches in the main theater of Afghanistan, with UAVs, strategic intelligence collection, and hundreds of analysts deployed forward. Suddenly, this different theater in Libya presented a challenge.

Generating a base level of understanding is part of our art, he said. "You can't take your eye off the ball just because that country is not a priority. You have to pay attention to everywhere somehow."

GEOINT products, he said, can be used not just to map events that have happened, but to turn event mapping into future predictions. This is an advanced and refined form of GEOINT, he continued.

"There is a lot of work being done to understand how people live in order to reduce civilian casualties. Why?

Because civilian casualties put our strategy at risk." This is an example, he explained, of how GEOINT can provide the leap from the tactical to the strategic.

Peach also discussed the new Pathfinder building in the U.K., which embodies the multi-INT approach, bringing together analysts from all disciplines under one roof.

This is the wow moment for us in the U.K., he said, for multi-INT,

using the GEOINT baseplate to go much further, to go beyond.

"I still meet people, I've met people here yesterday who still wish to define and divide military requirements between strategic and tactical. We in the military have moved on," he said. **...**

SAVE THE DATE

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You don't want to miss the largest intelligence event of the year along with a 10th Anniversary celebration you won't forget.

» SPECIAL FEATURES

FLYNN KEYNOTE

DIA Director Addresses Accelerated Global Change

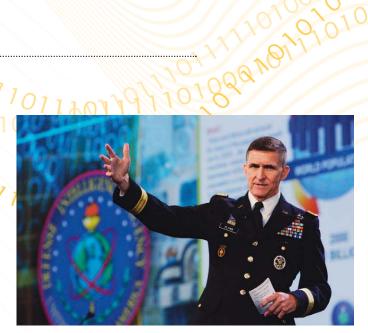
ieutenant General Michael Flynn, director of the Defense Intelligence Agency (DIA), spoke about the importance of responding to accelerating global change in his keynote address Wednesday morning.

Flynn, who took over as the head of the agency in July, emphasized the necessity of working as a team within the DIA, and across the Intelligence and National Security Communities to protect the nation today and in the future. This, he said he hopes to work toward with the DIA's Vision 2020 initiative.

"Vision 2020 is a team effort that will take a broad look at everything that we do across the DIA and look at how we need to operate in the future-certainly over the course of the rest of this decade and

"The network is the new weapons system. Bandwidth is the new class of supply." probably at least into 2020-2030." He added that he hopes to engage, innovate with, and inspire the DIA's young workforce.

Flynn also addressed population as one of his primary concerns, saying he has become more interested over the last couple of years in studying



and talking to people about human geography and the stressors the global population is placing on the planet.

He also noted how world population has doubled from 3.4 billion to nearly 7 billion in only 60 years, adding that it's important for people to have hope and the promise of a job and reliable government, in order to prevent them from turning to crime and other black or gray market activities.

There are three primary things all nation states have to take care of-land, water, and energy-and access to them," Flynn said. "If you look at where competitors are investing, which you have to pay close attention to, it's also in other things," he added, referencing Asia.

Flynn also addressed how exponential increases in data and information are driving change in the world.

"The network is the new weapons system. Bandwidth is the new class of supply," he said. "So commanders in the battlefield...they are

fighting the network more than they are having to fight the enemy or deal with their environment."

This demonstrates the importance of dedicating time and resources to reliable IT and cyber technologies.

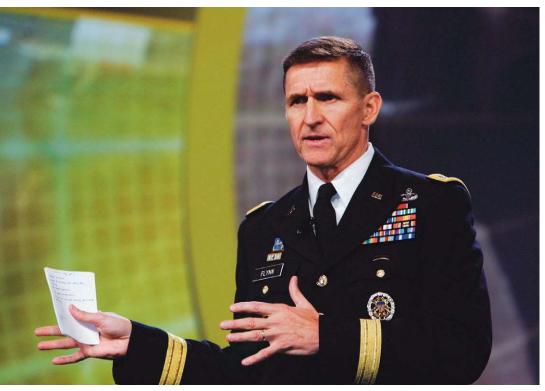
"Data is our new ammunition. It is definitely our ammunition in the Intelligence Community. It is about access to data."

Flynn also noted that we are moving into an era of persistent conflict.

"Threats that we faced in the past are now merged with threats that we'll see in the future and many that we've seen over the last decade," he said.

He went on to question whether we are responding to all of this change quickly enough.

"It's not about rearranging the deck chairs," he said. "We are in a different period in our history...We are in one of those turning moments in history, and not on a straightaway where you can see what you're about to do. For you Nascar fans, the turn is the tough part of the race."



Lt. Gen. Michael Flynn, director of DIA, discusses the significance of accelerated global change.

VICKERS KEYNOTE

More With Less

ichael Vickers said Wednesday that the conflict in Syria and the outcomes of the Arab Spring had added another priority to the list of operational imperatives for the Department of Defense's intelligence apparatus.

Over his two years as the DoD undersecretary for intelligence, Vickers has worked with four goals: defeating and dismantling Al Qaeda; facilitating a transition of defense capability to Afghani forces; denying weapons of mass destruction to such countries as Iraq and North Korea; and strengthening United States' cyber defense.

"Today I would add a fifth: Enabling the Syrian people to determine their own destiny and shaping the political determinations that are underway across the Arab world in ways supportive of U.S. interests," said Vickers in a keynote address at the GEOINT 2012 Symposium. "These are the big five in terms of their importance at present."

The operative term is "at present," because Vickers, like so many of the keynote speakers during this week's Symposium, acknowledged the need for adaptability to deal with an ever-changing list of challenges. Adding Syria and concerns in the Arab world just illustrated how fast that list can change.

To accomplish those aims, the Defense Department's intelligence operations seek to strengthen counter-insurgen-

cy and counter-proliferation capabilities and also add to the nation's ability to project power and reach around the globe, as well as advancing the United States' capability in cyberspace.

Vickers lauded the role that unmanned aerial systems are playing in combating terrorists.

"Predators and Reapers are the signature weapons of the war against Al Qaeda and affiliates, enabling the most precise campaign in the history of warfare," Vickers said. "Over the next five years, we will substantially improve the resolution of our GEOINT sensors and add new (signals intelligence) packages."

"I believe that we are focused on the most important challenges confronting defense intelligence, and that we are aggressively pursuing innovative solutions to these challenges."



USDI Michael Vickers adds a fifth priority to his list of operational imperatives in his keynote on Wednesday.

They were among several intelligence, surveillance and reconnaissance technical improvements on the DoD's horizon, including those aimed at maintaining the nation's air dominance.

"This is a critically important area for us," Vickers said. "It is the operational manifestation of our strategic shift to Asia."

He added that security concerns prevented elaboration.

Those improvements join efforts to forge partnerships between the DoD and the Central Intelligence Agency as part of an emphasis on data sharing and agency interoperability.

It's an ambitious list and one imperiled by economic challenges, particularly the looming budget cuts from sequestration.

"Most of you probably remember the old term 'do more with less," Vickers said. "The more appropriate new term, given our robust ISR portfolio and the current fiscal environment, is do more with more—but for less money."

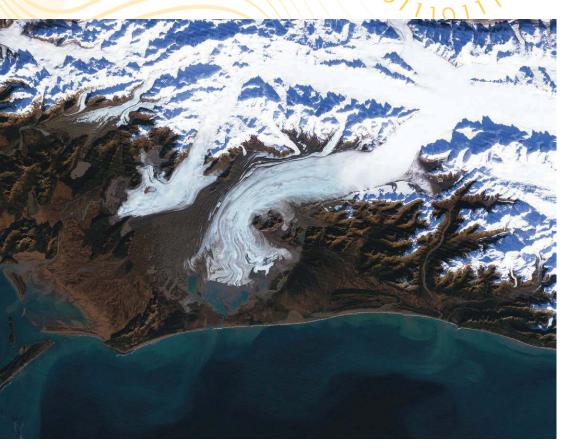
It presents yet another challenge: dealing with an expanding list of challenges during a time of contracting budgets.

"I believe that we are focused on the most important challenges confronting defense intelligence, and that we are aggressively pursuing innovative solutions to these challenges," Vickers said.

This includes the challenges of austerity in a world of ever-changing challenges.

EVIDENTIARY CHANGE

GEOINT Data Tracking Earth's Changes is Now Public



ruce Molnia is bringing stark, overwhelming evidence of a changing Earth to GEOINT 2012.

Molnia, who leads the Global Fiducials Program (GFP), which is part of the **Civil Applications Committee** (Booth 734) of the U.S. Geological Survey, also brings the message that such evidence is available publicly through two new websites: GFL.USGS.gov and GFP. USGS.gov.

The GFP, an inter-agency organization that began under the CIA in 1994, gathers images from ground-based sources, aerial platforms, and the DoD's constellation of satellites. All of the images are geospatially referenced to chart change at different points on the Earth, and are open to anybody, anywhere.

"We have been given permission to declassify these images and we share them openly," Molnia said of a move that "....." began four years ago. "We have a website where anybody can download high-resolution imagery of any of the 100 different locations from which we have been able to release that information."

High-resolution, in this case, means 1-meter.

"Our message is that by having dual use of these assets we in the science community are able to understand in a much more detailed way how parts of our planet are changing in response to a number of external forces," Molnia said. "Some of these are important to national security. Some of them are important to human populations. And some of them are important to protecting infrastructure."

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For example, the GFP has monitored the Bering Glacier, the largest in North America. The glacier expanded in the mid-1990s, then contracted for 15 years, and now is expanding again because of temperature change. The program also recently released images from Mount Kilamanjaro in Kenya, but lest one get the idea that sparse population is a criterion for GFP projects, Molnia tells of a couple closer to home.

"At GEOINT 2012, we will be demonstrating images of the Las Vegas-Henderson Nevada area," he said. "The water table has gone down where preexisting streams have been manipulated as popula-

tions have expanded from the old North Las Vegas area."

Also, a river outside Tucson, Ariz., has depleted because of rainfall shortage, and the grass around the stream has gone to mesquite and juniper because of over-grazing cattle.

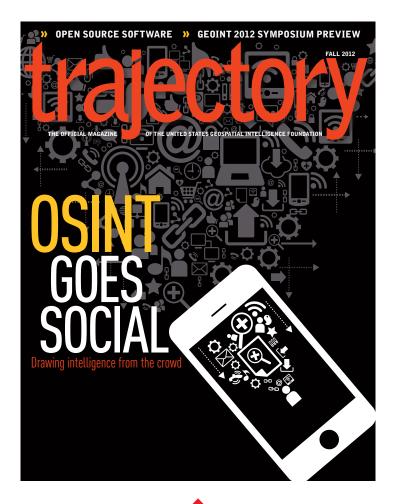
These explanations notwithstanding, the GFP mission is to collect images, not opinions.

The [Bering] glacier expanded in the mid-1990s, then contracted for 15 years, and now is expanding again because of temperature change.

"Our goal is to provide impartial science information," Molnia said. "Decision makers can take it and decide what to do with it. We're not advocating an outcome."

Just providing evidence, some of which can be seen at GEOINT 2012 in Booth 734.

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PHOTO GALLERY

» SPECIAL FEATURES



Adam Simmons and Andrea Cariola of Project GeoMedia got engaged Wednesday morning in the wedding pavilion at the Gaylord atrium.



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NGA Director Letitia Long took the time to speak with some of USGIF's young professionals Tuesday evening.



BAE Systems employees strike a pose at their booth Tuesday afternoon.

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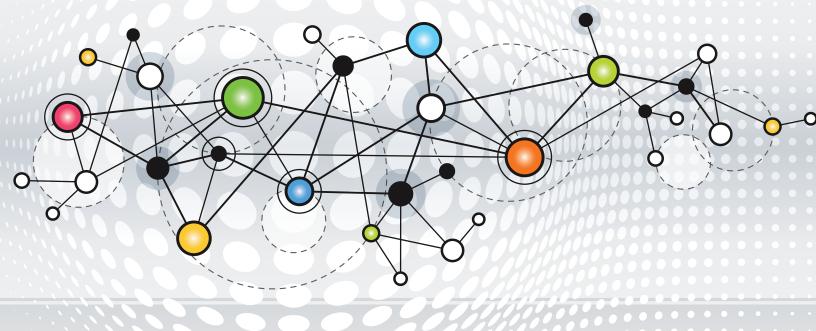
Tuesday afternoon's exhibit hall networking reception drew quite the crowd.



An attendee pauses to flip through trajectory, the new official magazine of USGIF.



2013 GEOINT COMMUNITY WEEK



MAY 20	MAY 21-23	MAY 21-22	MAY 23
USGIF	GROUND	NGA	USGIF
WORKSHOP	WARFIGHTER	TECH	TECHNOLOGY
SERIES	GEOSPATIAL	SHOWCASE	DAY
	INTELLIGENCE	EAST	
	CONFERENCE	(TS//SI/TK)	
	(SECRET/REL FVEY)		

Held annually in the Northern Virginia area, GEOINT Community Week brings together members from the defense, intelligence and homeland security communities, for a week of networking, classified briefings, technology exhibits and learning workshops.

usgif.org

THURSDAY OCTOBER 11 $\mathbf{\mathbf{b}}$

GEOINT

THURSDAY OCTOBER 11



9:15 A.M. - 9:45 A.M.

Award Presentation The USGIF Arthur C. Lundahl Lifetime Achievement Award

9:45 A.M. - 10:00 A.M.

Master of Ceremonies Osceola Ballroom C-D

The Honorable Jeffrey K Harris, USGIF Board of Directors; and CEO & President, JKH Consulting

10:00 A.M. - 11:15 A.M.

PANEL

The Intelligence Chiefs

- Lt Gen Larry D. James, Deputy Chief of Staff for Intelligence, Surveillance and Reconnaissance, U.S. Air Force
- MG Steve Fogarty, Commanding General, U.S. Army Intelligence and Security Command (INSCOM)
- RADM Sandy Daniels, Senior Advisor for Space to the Deputy Chief of Naval Operations for Information Dominance, N2/N6, U.S. Navy
- Phillip C. Chudoba, Assistant Director of Intelligence, U.S. Marine Corps

11:00 A.M. - 3:00 P.M.

Exhibit Hall Open

11:15 A.M. - 12:00 P.M.

Keynote

GEN Keith B. Alexander, U.S. Army, Director, National Security Agency/Chief, Central Security Service (NSA/CSS) and Commander, United States Cyber Command (USCYBERCOM)

12:00 P.M. - 2:00 P.M. Lunch

Exhibit Hall and Sun Ballroom A-B

1:00 P.M. - 2:00 P.M.

Lunchtime Roundtables **GEOINT** Professional Certification Sun Ballroom 1-3

Commercial SAR Satellite Briefing Sun Ballroom 4-6

2:30 P.M. - 4:00 P.M.

Breakout Session Interagency GEOINT Coordination Osceola Ballroom A

The session will focus on established, budding, and nascent Geospatial Information Officers (GIO's) augmented by select key geospatial enterprise players within other organizations to discuss the responsibilities surrounding their roles for coordination, assessment, and synchronization of their organization's GEOINT policies and standardization requirements.

Moderator - Becky S. Aiken, Functional Management Executive for Research and Development, National Geospatial-Intelligence Agency (NGA)

- Dr. Joseph Fontanella, Director, Army Geospatial Center; and Geospatial Information Officer, U.S. Army
- Dr. Jerry Johnson, Geospatial Information Officer, Department of Interior
- Carl Stuekerjuergen, DI Senior Technical Advisor, Central Intelligence Agency (CIA)

Breakout Session National Certification and Accreditation Programs for the Intelligence Profession Osceola Ballroom B

This session will provide an overview and discuss the role of certification programs throughout the Intelligence, Defense and Homeland Security Communities. Professional certification is essential for intelligence professionals, no matter the discipline. Just as we certify our systems and software, it makes sense that analysts are trained and certified to a level of competency is measured by a standard or standards. In this breakout, you will have the opportunity to hear from those have already implemented programs as well as those that are developing standards now.

2012 SYMPOSIUM AGENDA



Introductory Keynote and Moderator – Mr. A. Reese Madsen, Human Capital Management Office, Office of the Under Secretary of Defense for Intelligence (OUSD(I))

- Dr. Jim Ellsworth, Chief Performance Officer, United States Geospatial Intelligence Foundation (USGIF)
- Dr. Bruce Guggenberger, Chief, Functional Management Division – Defense Collection Management Enterprise, Defense Intelligence Agency (DIA)
- Denise Humphrey, Deputy Director, Center for Development of Security Excellence, Defense Security Service (DSS)
- Dr. Joselito "Joe" Lualhati, Principal and Director, Research and System Development, Global Skills X-Change (GSX)
- Lisa Spuria, Director, Analysis and Production, National Geospatial-Intelligence Agency (NGA)
- Dr. Anjali Weber, Director of Accreditation Services, National Commission for Certifying Agencies, Institute for Credentialing Excellence (ICE)

7:00 P.M. - 10:00 P.M.

Networking Event GEOINT 2012 Sunshine State Closing Celebration Gaylord Palms Coquina Lawn USCIF

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