

Geospatial Intelligence Forum

THE OFFICIAL **geoint 2009** United States Geospatial Intelligence Foundation **symposium**
October 18 - 21, 2009 • San Antonio, Texas

SHOW DAILY

WEDNESDAY,
OCTOBER 21, 2009

Produced by Geospatial Intelligence Forum

WWW.GIF-KMI.COM

Intelligence Veteran Honored

Charles E. Allen, whose intelligence career has stretched over more than half a century, was honored Tuesday at GEOINT 2009 with the U.S. Geospatial Intelligence Foundation's Lifetime Achievement Award.

Allen, who is currently with the consulting firm established by former Secretary of Homeland Security Michael Chertoff, previously served as chief intelligence officer for the Department of Homeland Security's Office of Intelligence and Analysis, reporting directly to Secretary Chertoff. In that role, Allen was responsible for coordinating with the intelligence community and providing guidance on homeland-security-specific issues.

Prior to joining the department in 2005, Allen had served as assistant director of central intelligence for collection since



From left to right: **K. Stuart Shea**, USGIF chairman and CEO; **Charles E. Allen**; and **Keith J. Masback**, USGIF president.

June 1998. In this capacity, he was responsible for intelligence community collection and requirements management and reported to the deputy director of central intelligence for community management. Allen also chaired the National Intelligence Collection Board, which ensured that collection was integrated and coordinated across the intelligence community.

A native of North Carolina, Allen began his CIA service in 1958, holding a variety of positions of increasing responsibility both in analytic and managerial capacities. From 1974 to 1977, he served overseas in an intelligence-liaison capacity, and from 1977 to 1980 held management positions in the Directorate of Intelligence. **CONTINUED ON p. 6** ➔

Integrating Forensic Intelligence and Real Time Geospatial Analysis

"Yesterday, during several panel sessions, we heard a common theme that the DoD community is looking for better integration of forensic data with real time information from UAV and other intelligence gathering platforms," said Mark Wolsky, senior director of marketing for **OVERWATCH**, an operating unit of Textron.

Overwatch and AAI have

developed a **Tactical Remote Exploitation (TREx)** system designed to blend real-time telemetry and video with forensic databases while offering multi-source intelligence and geospatial analysis tools in a single terminal. The system combines AAI's One System Remote Video Terminal with geospatial exploitation tools such as ELT/ Series or RemoteView, through

Viper framework architecture used by the Army. TREx allows operators to view images from up to five sensor platforms—which include manned and unmanned aircraft and vehicles as well as stationary observation locations—and integrate them with available metadata. The image maps are populated with mil standard 2525B **CONTINUED ON p. 3** ➔

High Resolution Imagery Adds to High Altitude Thrills

In an eye-popping display of satellite imagery and video technology, an air combat video game being shown at the **GEOEYE** booth (#223) at GEOINT 2009 incorporates the first use of very high resolution geospatial imagery in the video gaming industry.

Tom Clancy's High Altitude Warfare Experimental Squadron (HAWX), produced by Ubisoft, can be played at the booth, enabling users to experience the aerial combat of the future over real locations such as Rio de Janeiro, Brazil, and Washington, D.C., portrayed with dazzling accuracy and vividness. **CONTINUED ON p. 2** ➔



3-D Visualization



ANALYTICAL GRAPHICS, INC.,

producer of commercial off-the-shelf software for space, defense and intelligence applications, recently expanded its product line to include Insight3D, a .NET control that lets developers easily integrate 3-D visualization into their desktop or Web-based applications. Based on AGI's 3-D graphics engine, Insight3D supports terrain, imagery, 3-D models, satellite orbits, object tracks, streaming video and more. Developers

can model objects and their motion within a scene and interact with them by object picking and flexible view-point controls. The company is demonstrating the software during DEOINT 2009.

"With Insight3D, developers can render objects with smooth motion that accounts for changes over time and view those objects from any

angle or position," said Todd Smith, AGI product manager for enterprise integration. "This greatly enhances understanding and removes the uncertainty inherent with static data. Insight3D also excels at adding air and space assets to geographic data—such as depicting sensor coverage and air-to-ground lines-of-sight. GIS professionals have begun to recognize the value of this, and Insight3D makes it easy for them to add to their analyses." ■



CONTINUED FROM p. 1 ➔

While intended for the recreational market, the game's use of very high resolution imagery highlights the potential value of information from a company such as GeoEye for a wide range of training, modeling and simulation applications.

The game, introduced last spring, has proved to be extremely popular, selling upwards of two million copies.

"Commercial satellite imagery is an important tool for mission planning. The HAWX game brings this to life in a highly visual, dramatic way," said Mark Brender, communications director for GeoEye. "When U.S. forces have to deploy on a humanitarian mission and need to fly into airfields, having unclassified, up-to-date satellite imagery for mission rehearsals is important for mission safety.

"Once you see the impact of how imagery is used in this game, there's no going back to cartoon-like low-resolution

maps," Brender added.

The game includes satellite imagery for 18 different locations, both in the United States and other countries.

While emphasizing that the game is not designed as a military training tool, developers predict that it will raise the bar on military simulation as young people become used to having the most realistic geospatial imagery included in their games.

To incorporate the GeoEye imagery, Ubisoft designers first created rough digital models of the locations, and then overlaid the high resolution imagery over that. Because of the limitations of memory size, designers had to make some compromises in terms of how the locations are depicted. Even so, GEOINT 2009 attendees will find that a simulated dogfight over intensely realistic images offers both a welcome break and a view into the future of interactive entertainment and geospatial intelligence. ■

Mapping System Designed for Tactical UAVs

VISIONMAP has commercially released a reconnaissance and mapping system for tactical UAVs (MIST). At just 10 kg, the MIST payload can be carried by small tactical UAVs, providing performance that equals full size reconnaissance pods weighing more than 100 kg.

MIST provides extremely high quality color stereoscopic imagery at oblique and nadir angles, as well as highly accurate, automated mapping products. MIST systems cover very wide areas in high resolution and can record data for hours. In addition, MIST is platform agnostic and simple to operate, enabling rapid deployment and adoption. MIST is operationally proven over thousands of hours. ■

CONTINUED FROM p. 1 ➔

symbology showing the location of sensor platforms and sensor footprints being imaged by the platform, as well as significant named areas of interest (NAI).

“One of the most appealing aspects of TREx is the fact that it relies on currently fielded equipment,” said Todd Alexander, director of business development at AAI. “Basically everything the system uses is based on a TRL [Technology Readiness Level] of nine.”

The operator can select a frame from the video, zoom in for a tighter look, and when an NAI is identified they can take a snapshot if it, which is automatically added to the forensic database. Images can then

be related to, and associated with, other images and entities in a multi-INT database. For example, if a suspicious white truck is observed near an NAI, the database can be queried to determine other locations where the white truck shows up and how it relates to other entities.

Using link analysis diagrams, connections can also be made to associate images with one another to form maps of related information to reveal common threads. This can be extraordinarily useful, for example, for high value targets where connections can be automatically made with the people, places and things that a target has been associated with. At a deeper level, those associated

people, places and things can then be related with each other to form multiple layers of actionable intelligence to support warfighter missions.

Information from other sources such as intelligence reports can be used to build forensic knowledge—all connected visually on moving maps as well as in traditional multi-INT and geospatial analysis tools. “This creates a very powerful capability that allows the integration of data mining, geospatial analysis and real time sensor intelligence,” said Alexander.

The entire forensic database is also searchable such that all information, maps and imagery associated with search queries

can be accessed and displayed. The information can then be sorted using any number of criteria such as time or location. For example, the system can chart out the times of events in an NAI, such as IED or sniper attacks, and determine the most active periods which can then be used for intelligence purposes for either time or route avoidance or to prepare a counter strike at the appropriate time.

TREx works with Overwatch’s GeoCatalog data management capability to enable analysts to more effectively utilize multiple sources of intelligence to address complex problems associated with counter-insurgency and irregular warfare missions. ■

TREx



Integrating Forensic Intelligence, Real Time Geospatial Analysis and Multiple Sensor Platforms

AAI and Overwatch, operating units of Textron Systems Corporation, have created a next-generation intelligence collection and analysis solution. The Tactical Remote Exploitation (TREx) Terminal delivers real-time sensing and a powerful set of live and post-engagement video, data management, and geospatial analysis tools. An integrated solution that supports 18 different remote sensing platforms, TREx integrates remote sensor intelligence with geospatial and multi-INT analysis workflows.

TREx also works with Overwatch’s GeoCatalog data management capability to enable analysts to more effectively utilize multiple sources of intelligence that address complex problems associated with counter-insurgency and irregular warfare missions.

www.geospatial.overwatch.com

For more information please call: (703) 437-7651

SCANNING AND SIFTING

Supplementing geospatially-based intelligence collection and detection

The Defense Science Board recently released their *Capability Surprise* report which deals with the ability to track vast amounts of information, determine what is important, what is related and predict outcomes and reduce surprises to security. What follows are excerpts from the report that specifically mention geospatial-related constructs.

Technology development takes place in a global environment of collaboration, funding, intellectual property protection, security, recruiting, mergers and acquisitions communities. As a

result, conventional approaches of geospatially-based intelligence collection and detection need to be supplemented with new techniques that are more comprehensive and more integrative.

Historically, the space of technical innovation has often been described by domain taxonomies: nested lists of technical domain and sub-domains. While useful in support of planning and budgeting, these taxonomies can be less useful in actual managing surprise, for which flexible design processes

are needed to address many domains—including the goal to anticipate new developments as they emerge. A potentially more useful approach to anticipating technical advances—that is, for scanning and sifting in the context of the technical aspects of capability surprise—is to focus on the most innovative people and the relationships among them, both institutional and social. These networks provide the infrastructure through which ideas and experience flow and are facilitated. Identifying and understanding the activities

and interactions of the leading researchers will provide insight that should facilitate anticipating breakthrough developments that result in surprise.

The current U.S. intelligence collection and analysis tools simply do not scale to this new reality—the ability to connect technology advances with potentially threatening capability is lacking. Creativity is called for in at least three dimensions:

- Exploitation of new classes of signatures, especially from open sources.
- Imaginative use of emerging technologies to vastly increase the productivity of intelligence analysts, allowing them to cover the larger target set and to absorb the vast amount s of potential new signature data available.
- Continuous adjustment of the areas of most intense observation, both within the analysis process and through direction of collection efforts.

All three dimensions fit into a “coarse-to-fine” paradigm, monitoring all known activities at a coarse horizon scanning level and then selecting for greater technology watch attention those efforts that are deemed likely to create a significant threat. Technology watch domains will frequently emerge and change, so their selection should not be permanently established in any formal organizational construct. A parallel effort in understanding organization and intent, to the extent that such monitoring is possible, should accompany any technology track of the scanning and sifting process. ■

Technologies Delivering Results

ESRI is using GEOINT 2009 to spotlight innovations to its geospatial technology product lines.

The company’s well-known ArcGIS software provides an essential and cross-cutting capability for the GEOINT community to see patterns and discover nonobvious relationships in data. Analysts will gain superior situational

awareness by visualizing the fused results in a geospatially enabled common operational picture.

On the ESRI booth several key technologies are being demonstrated including ArcGIS Server software which includes a data fusion and analysis engine, server technology for publishing Web map services and a set of fully

customizable clients for viewing data.

Their ArcGIX Server Image extension manages and delivers large sets of imagery, streamlining the image delivery process from the sensor to those who need it: analysts, warfighters and decision makers.

A collaborative project on display is the Commercial Joint Mapping Toolkit Geospatial Appliance (CGA), built by Northrop Grumman working with ESRI. The end product delivers basemaps for defense and intelligence operations. The CGA combines the National Geospatial-Intelligence Agency datasets with commercial datasets in an appliance that delivers fast and easy access to basemaps and map services. ■





VIDEO SOLUTION Provides Unprecedented Situational Awareness

Every month, unmanned aerial vehicles (UAVs) stream tens of thousands of hours of live video to intelligence analysts and commanders. To help manage this deluge of video and sensor data, Intergraph has introduced its Motion Video Exploitation solution, which enables analysts to geospatially integrate video with multiple intelligence sources to provide unprecedented situational awareness and Strategic decision making capabilities.

INTERGRAPH'S MOTION VIDEO EXPLOITATION solution fuses and displays video data, including data from unmanned aircraft systems (UAS), with satellite imagery and geo-intelligence, delivering an exceptional level of actionable intelligence in real time.

This latest addition to Intergraph's suite of geospatially powered solutions supports military and civilian agencies' intelligence, surveillance, target acquisition and reconnaissance activities by providing an end-to-end workflow for collecting, extracting, analyzing and maximizing video data sources. The Motion Video Exploitation solution also allows for the storage of video so that it can be queried with all other geo-referenced enterprise content, allowing it to be easily located and utilized at a later date.

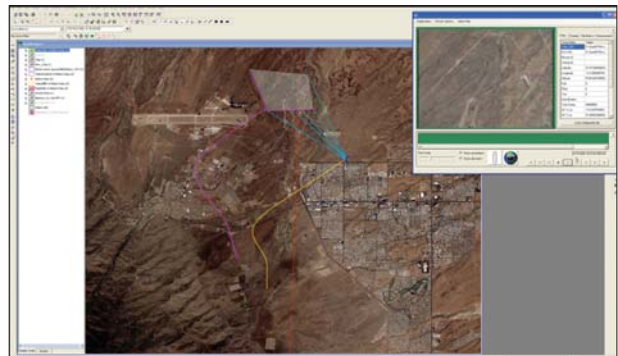
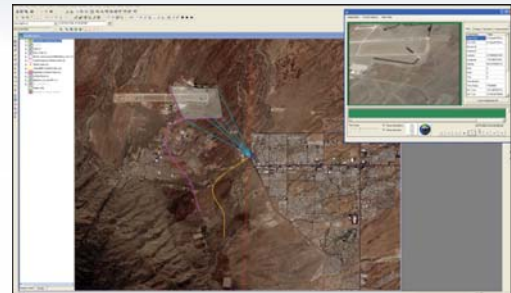
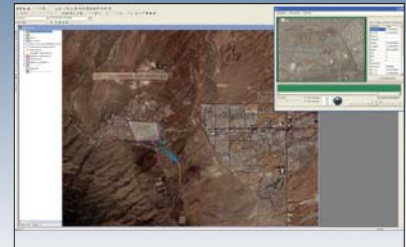
Using DVR-like controls, defense and intelligence analysts can easily collect, manage, store and distribute video on an enterprise-wide basis. It also correlates annotations and clipmarks within a video and conducts queries based on those annotations. Intergraph's Video Analyst application, a core technology in the Motion Video Exploitation solution, has been proven in years of public safety and

security service. The application enables real-time video enhancements and corrections, such as stabilization, removing atmospheric distortions and correcting for shadows, to improve video quality acquired from aerial platforms.

The motion video exploitation technology can detect change between frames and direct an analyst to a specific point of interest within the video. The solution also enables advanced analysis by fusing aerial motion video with other intelligence sources such as satellite or ground-based imagery, and sensor data with 3D modeling and simulation capability. Based on open industry standards, Intergraph's commercial off-the-shelf Motion Video solution promotes multi-agency interoperability and fusion of data from numerous disparate sources.

The Intergraph motion video solution incorporates EchoStorm's adLib video and data management software to facilitate the ingestion and reading of video from UAS. Once the video is collected and read by the EchoStorm solution, it is distributed into Intergraph's geospatial content management application in near-real time, empowering analysts with an up-to-the-minute view of the situation on the ground.

"Defense and intelligence agencies worldwide rely on Intergraph's open geospatial intelligence solutions to create



and exploit highly accurate visual representations for actionable intelligence and situational awareness," said John K. Graham, president, Intergraph Security, Government and Infrastructure. "By uniting Intergraph's extensive experience in geospatial data fusion and our vast expertise in forensic video analysis, we are able to offer our customers an unprecedented video analysis capability. The Intergraph Motion Video Exploitation solution ultimately maximizes warfighter efficiency by providing real-time situational awareness and actionable intelligence." ■

Enhanced Video Forensics Technology Demonstrated

MotionDSP, a provider of video forensics and image enhancement technology, is demonstrating its Ikena product during the GEOINT 2009 Symposium.

During the symposium, visitors to the **In-Q-Tel** and **CARAHSOFT** booths will see first-hand how the latest version of Ikena builds on the innovative technologies, ease of use and cost savings provided to law enforcement, military, and intelligence groups around the world. With the new Ikena, users will also benefit from significant upgrades in speed, functionality, and processing quality.

MotionDSP's Ikena products have the unique ability to increase resolution and remove noise while providing the most advanced image stabilization available today. The software is able to enhance traditional surveillance video footage as well as video from modern sources such as cell phones, security cameras and YouTube. Ikena runs on a Windows PC, and can be used on a laptop in the field

or a lab desktop system without requiring any additional hardware or software. With the simple, single-step enhancement capabilities, users can quickly and easily enhance faces, identify objects and read license plates. They can also preview enhancements and can save high resolution stills and enhanced videos to disk.

What sets Ikena apart from the competition is, unlike software that uses frame-averaging techniques, Ikena can extract detail from scenes with movement: both moving and non-moving objects and complex scenes that combine both camera and object motion," explained Sean Varah, chief executive officer of MotionDSP. "To enhance a frame of video, MotionDSP's patented super-resolution algorithms analyze multiple neighboring frames and choose the best pixels to literally reconstruct a higher-resolution version of the original. This results in the ability to 'scale-up' a small video to a larger size while adding new detail and clarity." ■

System to Help Spain Meet NATO Geospatial Requirements

PCI GEOMATICS, a developer of geo-imaging software and systems, has successfully delivered an operational automated system for the orthorectification, pansharpener and mosaicking of large volumes of satellite imagery to **COTESA**, a Spanish GIS company. The Spanish government is working with Cotesa to fulfill its requirements under the Multinational Geospatial Co-production Program (MGCP), undertaken by 28 NATO nations participating in the production of global high-resolution vector geospatial data.

Employing PCI Geomatics' advanced component architecture (GeomaticaX), the highly automated system is used to operationally process high resolution satellite imagery from QuickBird, IKONOS and SPOT-5. The volume of data to be processed with PCI Geomatics' ProLines is estimated at 10,000 images over a three-year period. PCI's Proline system is highly modular, providing Cotesa the ability to easily add additional processing capability, thus increasing throughput and performance as required.

"Cotesa has considered the wide spectrum of image processing products in the marketplace and has chosen PCI Geomatics due to the high quality of the results provided by Geomatica's algorithms and the substantial increase in processing capability acquired with the solution implemented," said Francisca Gómez, head of Cotesa's Environment Department and the person responsible for MGCP project development. ■

CONTINUED FROM p. 1 ➡

From 1980 to November 1982, he served as a program manager of a major classified project.

In December 1982, Allen was detailed to the Office of the Secretary of Defense, where he held a senior position in strategic mobilization planning. In 1985, he returned to the CIA in the capacity of a national intelligence officer (NIO) for counterterrorism. In February 1986, Allen was also appointed chief of intelligence in the CIA's newly established Counterterrorist Center. As NIO for

counterterrorism, he represented the director of central intelligence (DCI) in a number of interagency committees, including chairing the Interagency Intelligence Committee on Terrorism and serving as a member of the Interdepartmental Group on Terrorism and the National Security Council's Terrorist Incident Working Group.

Following this assignment, Allen served as the NIO for warning from 1988 to 1994. In this capacity, he was the principal adviser to the DCI on national-level

warning intelligence and chaired the Intelligence Community's Warning Committee.

Allen earned a bachelor's degree and completed graduate studies at the University of North Carolina. He is a Distinguished Graduate of the Air Force Air War College.

At the Chertoff Group, Allen is responsible for homeland security threat assessments and information sharing programs; counterterrorism and counter-proliferation threat analysis; critical infrastructure risk assessments; crisis and

risk management; and corporate strategic planning.

This past summer, Allen was named by the Intelligence and National Security Alliance (INSA) as its first senior intelligence adviser. In this position, Allen is a thought leader for national security and intelligence policymakers and practitioners, providing advice to the INSA chairman, president and board of directors on strategy, policy, doctrine, issues and topics which serve to enhance government and private sector participation and partnership. ■

Solution Addresses Complex Analysis Challenges

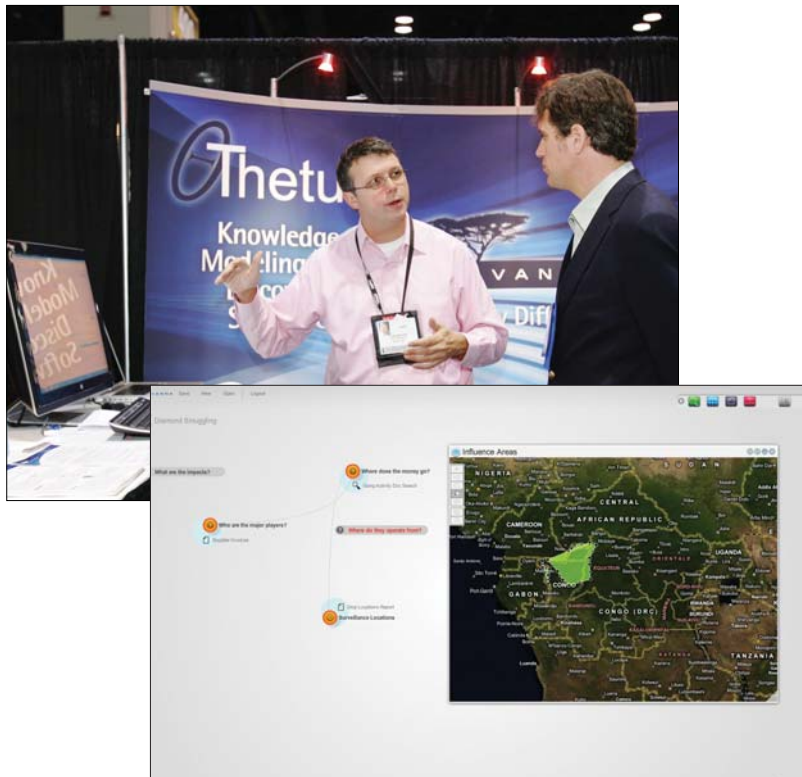
Delivering a new standard of solutions to address complex modeling and analysis challenges, the **Savanna** solution from **THETUS** builds upon the proven foundation of the Thetus Publisher, a semantic modeling platform, to provide an off-the-shelf analysis solution designed for rapid integration and customization.

Savanna provides users with a model-centric environment that is optimized for analysis involving multiple perspectives, confidence and detailed lineage tracking. The solution provides extension points at every level of the architecture, allowing customers to adapt models, analysis tasks and user experience to meet their individual needs.

"We recognize that users have unique needs, and we believe that the analysis environment should be as dynamic as the challenges our customers face," said Philip Pridmore-

Brown, vice president of product services at Thetus. "The Savanna solution changes the way we model and understand complex analysis challenges by using flexible knowledge models uniquely suited to cultural, geo-cultural and human terrain analysis. We are excited to be able to bring together the best products available in the Savanna framework."

The Savanna solution framework includes out-of-the-box connectors to leading providers of content management, entity extraction, geospatial analysis and temporal analysis products, including MarkLogic, Janya, MetaCarta, and ESRI. These integrations deliver a new level of deployment speed and ease to customers and enable Savanna to address a broad range of structured and unstructured data typical of today's intelligence process. ■



Monitoring Service Tracks Changes

Using GEOINT 2009 as the forum for its first public display in the United States, **SPOT Image** has unveiled a new monitoring service for the detection of changes in any location around the world.

SPOTMonitoring is an accurate, recent change detection information service targeted for defense and security applications, major corporations and non-governmental organizations. Through a unique online service, it provides change information coming from multi-source, multi-resolution satellite imagery in a three-step process.

Customers subscribe online to open an account and access all features of the service. They select their sites of interest and monitoring period (three periods minimum) and confirm their choice. Next, they receive e-mail alerts about their selected area of interest and can then visualize archive data and receive future change reports.

SPOT Image experts then analyze imagery on specialized software, produce reports and send subscribers a copy of these reports via the online service. This report is illustrated by an image annotated with arrows and color-coded areas to highlight changes.

The service will save time, money and human resources for customers, according to the company, and enable users to purchase only useful data at the right time. ■

SRA INTERNATIONAL, INC., a provider of technology and strategic consulting services and solutions to government organizations and commercial clients, has announced the appointment of Scott F. Large, former Director of the National Reconnaissance Office, as senior vice president and strategic advisor. ■

STORAGE Customization



SGI has announced the introduction of **SGI InfiniteStorage NAS** and **SGI LiveSAN**, two powerful new storage offerings within the SGI InfiniteStorage Total Control suite, a rich set of modular software and hardware tools that enable a high-degree of storage customization using standard components. InfiniteStorage NAS (network attached storage) and LiveSAN are key product additions for storage virtualization that will allow data center managers their

data environments. The Total Control suite now includes solutions ranging from LiveSAN for block-level virtualization, global namespace solutions with InfiniteStorage NAS, Data Migration Facility (DMF) for tier virtualization, and LiveArc, an advanced digital asset management framework. These best-of-breed components are available individually or as part of an integrated, scalable, future-proof solution set that allows for the ultimate in control over current

and anticipated data management operations.

“With increasing storage demands, data center managers are looking for storage solutions that enable them to tailor their data environment to the specific needs of their users without being locked into expensive, one-size-fits-all scenarios,” said Jose Reinoso, vice president for storage products at SGI. “LiveSAN and InfiniteStorage

NAS specifically make storage ecosystems highly tunable to increase utilization and decrease costs.”

InfiniteStorage NAS is a high-performance NAS hardware platform that satisfies the most demanding storage needs of shared data environments. LiveSAN is a block-level storage virtualization suite that enables complete control over any SAN environment. ■

Major General Merdith W. B. Temple, deputy commanding general for civil and emergency operations, U.S. Army Corps of Engineers, Washington, D.C., has been assigned to deputy chief of engineers/deputy commanding general, U.S. Army Corps of Engineers, Washington, D.C. ■

MILITARY IMAGERY PLUG-IN

COGENT3D, INC. and **LOCKHEED MARTIN** have announced the launch of

GeoSketch, a military imagery plug-in for Google SketchUp at GEOINT 2009. GeoSketch

makes SketchUp the perfect tool for quick and accurate geospecific 3-D model creation from a few to a few hundred images.

With GeoSketch SketchUp now has the ability to support military and commercial UAV video, oblique imagery, and photo sources with/without included camera model information. GeoSketch’s unique process automatically choosing the right pixels and automatically enhances source camera model information while you model following the SketchUp push-pull modeling process.

GeoSketch also adds

OpenFlight the military modeling and simulation and serious gaming format to those already available from SketchUp PRO. GeoSketch enables SketchUp to produce models for both Google Earth and high fidelity 3-D mission rehearsal trainers at the same time without the need for external conversion.

GeoSketch Plug-in is available standalone and comes bundled with TacForge Deployable, both available from Cogent3D, Inc. GeoSketch works with SketchUp and Sketchup Pro software from Google. ■



Combining Image Analysis, Remote Sensing and GIS

ERDAS has been busy lately with new versions of ERDAS Imagine 2010, LPS 2010, ERDAS Apollo 2010 and other desktop and enterprise products. In addition, the company has introduced several new products, including Imagine Feature Interoperability and Imagine SAR Interferometry as well as a technology preview of LPS eATE.

ERDAS Imagine 2010 is many solutions in one, incorporating image analysis, remote sensing and GIS. Featuring a new ribbon interface, ERDAS Imagine makes it easier for users to navigate and customize their workspace. It also provides enhanced tools for parallel batch processing, spatial modeling, map production, mosaicking and change detection. In addition, ERDAS Imagine also incorporates the ERDAS ER Mapper algorithms and implements comprehensive OGC Web Processing Service (WPS), Web Coverage

Service, Web Mapping Service and Catalog Services for the Web.

Imagine Feature Interoperability is a new module supporting DGN direct-read, write and editing, including symbolization colors, cells (points with shapes assigned to them), text, relating to external attribute sources such as Oracle tables and the use of the spatial indexing and caching for roaming, zooming and other functions.

With intelligent defaults and optimized processing, Imagine SAR Interferometry is fully integrated into ERDAS Imagine. Imagine SAR Interferometry includes new interpolation techniques that increase the quality and fidelity of radar data. A part of the Imagine Radar Mapping Suite, Imagine SAR Interferometry now includes Imagine Coherence Change Detection and Imagine InSAR.

LPS 2010 is a powerful photogrammetry system for a variety of workflows, including

defense, remote-area mapping, transportation planning, orthophoto production (for basemap generation) and close-range applications. LPS eATE enables users to generate high-resolution terrain information from stereo imagery like never before, ensuring speed and accuracy, providing an unparalleled environment for processing terrain data.

“ERDAS Software 2010 is significant release for our customers, bringing remarkable productivity, performance, and value,” said Mladen Stojic, senior vice president, product management and marketing. “From celebrating a renaissance in renewing the usability of ERDAS Imagine through the new ribbon interface to defining and implementing the OGC WPS standard for geoprocessing through our desktop and enterprise products, ERDAS Software 2010 offers unique geospatial solutions that cater to the needs of our users worldwide.” ■



Official Publication of the United States Geospatial Intelligence Foundation

Geospatial Intelligence Forum

NOV/DEC 2009 ■ VOLUME 7, ISSUE 6

Cover and In-Depth Interview with:

Dennis C. Blair

Director of National Intelligence



FEATURES:

<p>GEOINT Symposium Report from the U.S. Geospatial Intelligence Foundation's GEOINT Symposium 2009.</p>	<p>Persistent Surveillance New technologies are meeting the increasing demand for long-term oversight of the field of operations.</p>	<p>Digital Navigation Integrating new time-variable capabilities as well as data from future sources will provide true maritime geospatial intelligence to the naval warfighter.</p>	<p>Location Based Services The booming business of location based services offers promise and pitfalls to intelligence analysts.</p>
--	---	--	--

Insertion Order Deadline: **November 6, 2009** • Ad Materials Deadline: **November 13, 2009**

Portal Offers Intelligence on Demand

In response to a growing demand for immediate, online access to geospatial imagery and analytical tools, Lockheed Martin, working with **PICTOMETRY INTERNATIONAL CORP.**, has launched the first version of “**INTELLIGENCE ON DEMAND**,” a new Web portal that offers users a world of imagery and analysis for a flat monthly fee. This initial version offers a library of more than 100 million geospatial images from Pictometry and high-powered analytical tools from Lockheed Martin, all available online.

“More and more U.S. government agencies are

relying on geospatial intelligence to plan and conduct their operations,” said Roger Mann, director of advanced programs for Lockheed Martin Information Systems and Global Services-Intelligence. “But for many organizations within these agencies, it’s not practical to purchase, install and manage a multi-million dollar server infrastructure to store and archive terabytes of high-resolution imagery. With Intelligence on Demand, we’re offering users all the convenience and security of their own geospatial database, with none of the traditional costs and effort. A flat subscription fee gets you instant access to all the imagery in our database, downloaded straight to your laptop on demand.”

Intelligence on Demand is built on a cloud computing model, where a large number of users connect to data on a shared “cloud” of servers on the Internet. Web-based e-mail and document sharing applications are examples of commercial clouds. The cloud approach significantly improves convenience and affordability for users, who can access their data from any computer anywhere in the

world, so long as they have a network connection.

Intelligence on Demand offers users three key advantages over traditional, commercial clouds:

- **Enhanced Security:** The service is carefully controlled and managed by Lockheed Martin and offered only to U.S. government users, giving agencies a “trusted cloud” capable of storing secure or sensitive information.
- **Unique Data Sets:** Intelligence on Demand is the only trusted service to offer ultra high-resolution images from Pictometry, which provides imagery taken from airplanes at an oblique angle, rather than straight down like traditional imagery. The result is imagery with up to four-

inch resolution that can be used to create photo-realistic virtual models of landscapes that are rich, pinpoint-precise, and capable of powerful geospatial analysis. Lockheed Martin will add more data sets from other providers in the future.

- **Sophisticated Analysis Tools:** Built-in online tools let users perform advanced geospatial analysis, such as measuring precise heights and distances in three dimensions, determining lines of sight, and mapping out operations in three dimensions. More than just data, Intelligence on Demand offers web-based tools to support mission planning, disaster response, and command and control. ■



EDITOR

Harrison Donnelly

EDITOR-IN-CHIEF

Jeffrey McKaughan

ART DIRECTOR

Anna Druzcz

KMI MEDIAGROUP

PRESIDENT AND CEO

Jack Kerrigan

VICE PRESIDENT OF SALES AND MARKETING

Kirk Brown

ASSOCIATE PUBLISHER

Scott Parker

The OFFICIAL GEOINT **SHOW DAILY** is published by *Geospatial Intelligence Forum* and KMI Media Group Monday October 19, Tuesday October 20 and Wednesday October 21. Magazine distribution is free to attendees and exhibitors at GEOINT 2009 and available online at www.gif-kmi.com.

All Rights Reserved. Reproduction without permission is strictly forbidden. Copyright 2009.

KMI MEDIA GROUP
15800 Crabbs Branch Way, Suite 300
Rockville, MD 20855-2604 USA
Telephone: (301) 670-5700
Fax: (301) 670-5701
www.gif-kmi.com

SHOW DAILY

DAILY AGENDA UPDATE

WEDNESDAY October 21, 2009

8:00 A.M. USGIF Geospatial Achievement Awards
 (8:00a - 8:10a, Ballroom A)

8:10 A.M. Master of Ceremonies — Mark Lowenthal
 (8:10a - 8:15a, Ballroom A)

8:15 A.M. Vice Admiral Robert B. Murrett
 (8:15a - 9:00a, Ballroom A)
 Vice Admiral Robert B. Murrett was appointed director of the National Geospatial-Intelligence Agency on July 7, 2006.

9:00 A.M. ISR in the Counter-Terrorism Fight – Major General Bradley A. Heithold and Ed Mornston (9:00a - 9:45a, Ballroom A)

9:45 A.M. General Bruce Carlson (Ret.)
 General Bruce Carlson (Ret.) was appointed the 17th director of the National Reconnaissance Office (NRO) June 12, 2009.

10:30 A.M. NETWORKING BREAK (10:30a - 11:00a)

11:00 A.M. EXHIBIT HALL OPEN
 (11:00a - 6:00p, Exhibit Hall C)

11:00 A.M. The Art of the Possible – Dr. Pete Rustan, Major General John Custer and Jeff Jonas (11:00a - 11:45a, Ballroom A)

11:45 A.M. Director of National Intelligence Dennis C. Blair
 (11:45a - 12:30p, Ballroom A)
 Dennis C. Blair became the nation's third director of national intelligence January 29, 2009.

12:30 P.M. LUNCH & EXHIBIT HALL
 (12:30p - 2:30p, Exhibit Hall C)

OR

12:30 P.M. AGC BuckEye User Group Lunch Discussion
 (12:30p - 2:30p Rm 216)

2:30 P.M. Virtual Worlds and Modeling & Simulation
 (2:30p - 4:30p Rm 217)

Discussion Moderator: Robert H. Zitz, director, NRO-NGA Support, and Director, NRO Rapid Response Integration

PART I: JEFF "SKUNK" BAXTER, defense and intelligence consultant Mark Curry, HP Enterprise Services Tami Griffith, science and technology manager, Army Research, Development and Engineering Command

PART II: SUPPORT TO MODELING AND SIMULATION
 Paul G. Foley, project scientist; and modeling and simulation executive, National Geospatial-Intelligence Agency
 Dr. J. David Lashlee, research physical scientist and manager of modeling and simulation, U.S. Army Geospatial Center

W. H. "Dell" Lunceford Jr., executive vice president, Total Immersion Software Inc.
 Sandra N. Veautour, chief systems engineer, Army Program Executive Office for Simulation, Training & Instrumentation

2:30 P.M. Emerging Technologies: NURI/NARP
 (2:30p - 4:30p, Rm 216)

NGA conducts a multidisciplinary program of basic research in geospatial intelligence topics through grants and fellowships to the nation's leading investigators at institutions of higher learning. This research provides the fundamental science support for NGA's basic, applied and advanced research programs.

2:30 P.M. GEOINT & MASINT: Driving Intelligence Innovation
 (2:30p - 4:30p Rm 217 A/B)

The history of GEOINT and MASINT reminds us of the famous description attributed to Winston Churchill of the United States and the United Kingdom as "two great countries divided by a common language."

Discussion Moderator: Bruce L. Allen, acting deputy assistant director for technical collection, Office of the Deputy Director of National Intelligence for Collection

Panelists:

- Eric R. Benn, technical executive, Analysis and Production Directorate, National Geospatial-Intelligence Agency
- Dr. Peter Bythrow, chief scientist, National MASINT Management Office, Defense Intelligence Agency
- Elizabeth Milne, assistant secretary, capability and systems, Defence Imagery & Geospatial Organisation, Australia
- Curtis A. Rowland, GEOINT technical director, National Air and Space Intelligence Center
- Leon Thompson, GEOINT training officer, 513th Military Intelligence Brigade, U.S. Army Intelligence and Security Command
- Col. Jacqueline Walsh, U.S. Air Force, director, Joint Transformation Command-Intelligence, U.S. Joint Forces Command

4:00 P.M. EXHIBIT HALL RECEPTION
 (4:00p - 6:00p, Exhibit Hall C)

6:00 P.M. EXHIBIT HALL CLOSES

7:00 P.M. USGIF Closing Celebration & Lifetime Achievement Award Presentation
 (7:00p - 10:00p, Ballroom A)

Gone is the formal sit-down dinner ... Celebrate yet another GEOINT Symposia on Wednesday evening and see the presentation of the USGIF Lifetime Achievement Award. Following the brief presentation, enjoy special musical guest World Classic Rockers, which includes former members of Lynyrd Skynyrd, Toto, Steppenwolf, Journey, Santana and Boston.

2010 International Commercial Remote Sensing Symposium

*The Ronald Reagan Building and International Trade Center
1300 Pennsylvania Avenue NW, Washington, DC 20004*

SAVE THE DATE March 3-5 2010

REGISTRATION IS NOW OPEN at www.USGIF.org
Special pricing for U.S. and International Government Employees!

Exciting new remote sensing capabilities and commercial applications are developing around the world.

The United States Geospatial Intelligence Foundation (USGIF) and the Department of Commerce's (DOC) National Oceanic and Atmospheric Administration (NOAA) are partnering to bring international business and government leaders as well as academia together to explore the current issues facing this important community.

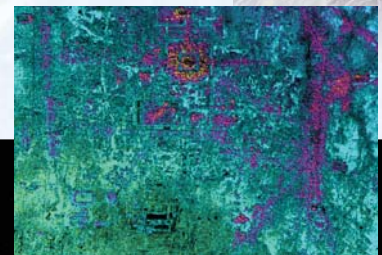
The 2010 International Commercial Remote Sensing Symposium affords attendees 2 ½ days of discussions on topics such as user community experiences, industry providers and capabilities, and policy concerns.

Learn More About:

- Current government and commercial market place – its opportunities and challenges
- Policy issues and ideas to improve industry-government partnerships and to leverage international partnerships
- Benefits of commercial remote sensing to society, the global economy and academia
- International government officials' experiences with commercial remote sensing matters
- Future trends in commercial applications of remote sensing

Who Should Attend?

U.S. and International GEOINT Community stakeholders interested in networking with other commercial remote sensing professionals, learning about the current and future state of the industry, and discovering the diverse applications and uses of these powerful tools should not miss this event!



Jointly produced by USGIF and DOC (NOAA)

www.usgif.org