

GEO™

INTELLIGENCE ASIA

14 – 15 June, 2012

The Ashok, New Delhi, India

REPORT





Geospatial technology has become a tool for national defence and also to support tactical decision making. The technology is at the heart of modern military, civil defence and emergency management services. By enabling extensive analysis they can support critical decision making by providing the right information to the right place at the right time.

With Geospatial information forming the core of every intelligence, defence and national security operation, it was not surprising that the eminent speakers and delegates in the conference felt it important to incorporate all disciplines of GeoIntelligence into the agenda of GeoIntelligence Asia 2012. Case study presentations from government, industry and defence professionals was focusing on the value and growing importance of data generation and dissemination in defence sector. The theme Building a Credible GeoIntelligence Infrastructure was well addressed in the conference and speakers deliberated upon building a sustainable geospatial infrastructure

which would enable intelligent flow of information among all the organizations and importance of data for an efficient geospatial setup.

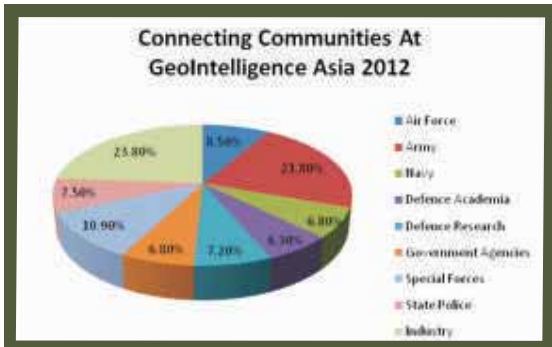
The Sixth edition of the annual GeoIntelligence Asia conference-cum-exhibition got an elegant start with a sea of uniformed officers of the three forces of Indian Defence along with major high profile speakers from the government organisations. The conference saw the participation of more than 350 delegates and above 50 speakers who discussed and debated on various technological and policy issues pertaining to Defence and Security. The two day conference was being organised in association with DRDO Labs (CAIR, DEAL, DTRL, ISSA, SASE), Indo Tibetan Border Police and Central Reserve Police Force. An exhibition was also held simultaneously which presented a truly unparalleled opportunity to the companies in front of decision makers and potential clients in one of the most important markets for defence and internal security.

To Build a Credible Geointelligence Data Infrastructure in the Country

The conference GeoIntelligence Asia 2012 proved a right and consolidated platform to address the need of building data infrastructure for the defence and intelligence community. Speakers from major defence research organisations, Army, Government Agencies and Private Players participated in the discussion and deliberations.

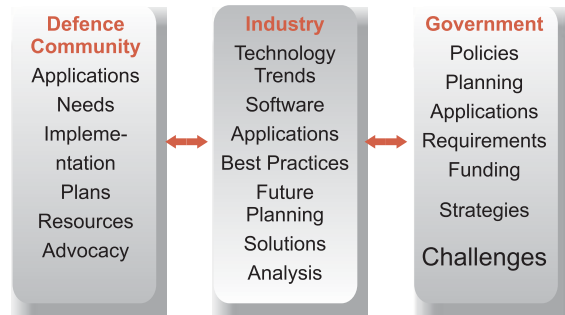
Connecting Communities

GeoIntelligence Asia 2012 was a great example of connecting communities. Very high profile speakers and delegates from different government agencies, defence establishments and private sector attended the conference where they discussed and deliberated on major aspects of security in the country.



Information Exchange & Knowledge Sharing

A dialogue of cooperation, knowledge sharing and information exchange was formed between the defence community, industry and government sector. The speakers and delegates discussed about the security challenges, requirements, applications, new trends, policies, funding and lot more.



Key Outcomes from GeoIntelligence Asia 2012

- *Geospatial Technology is a tool to empower the GeoIntelligence Community asong with government agencies taking care of country's security*
- *Geospatial Intelligence (Geoint) lays critical foundation for modern battlefield as it involves amalgamation of different type of intelligence like location intelligence, Imagery Intelligence (IMINT), Communications Intelligence (COMINT) and Human Intelligence (HUMINT)*
- *Need to build a sustainable geospatial infrastructure which will enable intelligent flow of information among all the organizations*
- *Interoperability among the Army, Navy, Air Force, special forces and government organisations is crucial. This in turn calls for building standards, common symbology etc.*
- *There is a need of more collaboration and association between industry, government and defence agencies to develop synergy between army, navy and air force for using geospatial*
- *There is a need of training and development in the defence community for the use of geospatial in their respective domains*
- *Emerging and advanced trends should be implemented and processed more frequently in the defence sector and government sector*



The Inaugural Session of the conference saw some very high level defence personnel's presenting at the event. Delivering the inaugural address, Lt Gen K Surendra Nath, PVSM, AVSM, VSM, GOC-in-C, Army Training Command (ARTRAC), said, "Geospatial technology revolution will continue at a faster pace in future." He then talked about geotech prospects in the country. Stressing the need to build defence spatial data infrastructure, he said, "There is a need to achieve interoperability among the three Forces."

Shankar Agrawal, Additional Secretary, Ministry of Defence, Government of India delivered the Guest Address and explained, "Technology is changing the nature of wars. Due to advancement in IT and migration towards C4ISR structures, future wars will be fought on digitised battle zones."

"Technology is changing the nature of wars"

Shankar Agrawal,
Additional
Secretary, Ministry of
Defence

Speaking about the importance of geoint in armed forces, Lt Gen Anil Chait, GOC-in-C, HQ Central Command, Indian Army, said that the lack of accurate intelli-

"Lack of a mechanism to share data is a major problem among the agencies. If this problem is resolved, it can improve the capabilities of Forces involved in counter-insurgency operations effectively."

Lt Gen Anil Chait, GOC-in-C, HQ
Central Command, Indian Army

gence can cost a soldier his life. He then talked about his experience as a soldier involved in counter-insurgency operations.

"Lack of a mechanism to share data is a major problem among the agencies involved in such operations. If this problem is resolved, it can improve the capabilities of Forces involved in counter-insurgency operations effectively."

Representing the industry was John Day, Director of Global Defence, Esri, USA, who spoke about how his company can aid in providing solutions to the Indian security agencies.

Earlier, welcoming the audience, Dr M P Narayanan, Chairman, Geospatial Media and Communications, spoke about the importance of



geoint in defence and security. “Geospatial information is a critical foundation for many aspects of defence and homeland security, such as emergency preparedness, disaster response and recovery, border security operations, etc.

“The balance of power is gradually shifting from west to east. China, Japan and India are emerging as the contenders for global power and military strength,”

Lt Gen AKS Chandele PVS, AVSM, Managing Editor – GeoIntelligence and Advisor-Conferences, Geospatia Media

Lt Gen AKS Chandele, PVS, AVSM, Managing Editor – GeoIntelligence and Advisor-Conferences, spoke about the gradual power shift that’s taking place in the world today. “The balance of power is gradually shifting from west to east. China, Japan and India are emerging as the contenders for global power and military strength,” he said.

PLENARY SESSION 1

GeoTech: Essential Requirement of Modern Warfare.

Key Outcomes:

- Requirements of Large Scale Maps and Data
- Need to have Multi – Intelligence Data Fusion
- Need to have Online On-Demand Value-Added Images / Data



PLENARY SESSION 2

Building GIS Ready Intelligent Data Infrastructure

Key Outcomes:

- Accurate information with spatial tags is needed for efficient decision making
- Importance of data for an efficient geospatial setup
- Generation of geospatial data continues to increase exponentially
- GIS infrastructure can be built using GIS-ready data, devices and applications
- Need of GIS ready intelligence



PLENARY SESSION 3

Collaborative Approach to Common Geoinfrastructure

Key Outcomes:

- Importance of Social networking, crowdsourcing and user generated location information in today's world and its use by the Geointelligence community.
- How Standardisation can bring evolution in the functioning of an industry
- Need to develop interoperability capabilities among all the three forces – Indian Army, Indian Air Force and Indian Navy
- Geointelligence to make e-gov relevant and updated



PLENARY SESSION 1

DELIBERATIONS BY:

- Lt Gen K Surendra Nath, PVSM, AVSM, VSM, GOC-in-C, Army Training Command (ARTRAC), Indian Army, chaired the plenary
- Maj Gen RC Padhi, MOGSGS, Military Survey, Indian Army, said, "There is a tremendous requirement for large-scale maps
- Derek Ireson, Vice President, Defense & Intelligence Solutions Intergraph, USA, spoke about the need to have multi-intelligence data fusion and described data volume, speed and mobility and social media/ threat as some of the major intelligence challenges before the security agencies
- N S Shankaranarayana, Senior Director, Government, DigitalGlobe, spoke about the need to provide online on-demand value-added images/ data

PLENARY SESSION 2

DELIBERATIONS BY:

- Lt Gen Rajesh Pant, VSM, MCTE Commandant, Military Head Quarter Of War (Mhow), chaired the plenary
- Dr R Ramachandran, Centre Director, National Technical Research Organisation, explained the importance of data for an efficient geospatial setup
- Bryn Fosburgh, Sector President, Emerging economies, Trimble Navigation, USA, deliberated upon how data collection is becoming commonplace, quicker and accurate
- Rakesh Verma, Managing Director, MapmyIndia, India, discussed ways in which GIS infrastructure can be built using GIS-ready data, devices and application
- Ashwagoshia Ganju, Director, Snow and Avalanche Study Establishment (SASE), India said, "Geoint can enhance the mobility of army and common man in mountainous region

PLENARY SESSION 3

DELIBERATIONS BY:

- Lt Gen P C Katoch (retd), PVSM, UYSM, AVSM, SC, former DGIS, Indian Army, chaired the session, which witnessed an active participation from both industry and defence forces
- Mark Reichardt, President, Open Geospatial Consortium, USA, spoke about the importance of interoperability
- Manish Choudhary, Managing Director, Pitney Bowes Software India, explained how standardisation can bring evolution in the functioning of an industry
- Brig AS Nagra (retd), spoke about the importance of seamless collaboration in today's world
- Col Sunil Mishra, Director – BMS, DGIS, Indian Army spoke about how digital revolution has forced the governments throughout the world to shift their focus to e-gov

Geospatial for Border Management:

The technical session on 'Geospatial for Border Management' focused on technologies available for effective border management. It highlighted how geospatial technologies are being used by agencies in safeguarding country's borders.

Key Outcomes:

- *Geospatial technology has become an essential tool for modernization of Border Management techniques*
- *The technology helps in taking decisions at operational, tactical and logistic level.*
- *High resolution satellite imagery can play an effective role in border management*

GIS for Tactical Military Roles – Developers Perspective:

The session addressed about the major challenge in the design of a GIS, which lies in identification of appropriate algorithms. There are a plethora of well researched algorithms in the field of geodesy, cartography, image processing etc. The challenge is to identify the appropriate algorithm for the spatiotemporal problem and make a robust implementation of algorithms.

Key Outcomes:

- *Major challenge in the design of a GIS lies in identification of appropriate algorithms.*
- *GIS is the core of network-centric warfare (NCW)*
- *GIS interoperability across Army Tactical C3I systems*
- *Role of modelling and simulation in developing network enabled capability of the Indian defense system.*

Positioning and Navigation:

The session underscored the importance of satellite as a critical infrastructure. The omnipresence of satellite technology and how it is being used in banking sector, broadcast industry, disaster management, etc. The session stressed on the opportunities and challenges faced by GNSS industry.

Key Outcomes:

- *Satellite as a critical infrastructure and the omnipresence of satellite technology including the defence sector*
- *Importance of positioning, navigation and timing in defence infrastructure*
- *The gravity factor plays an important role in redefining the ballistic parameters of range, travel time and landing location*





GIS for Internal Security:

Internal security involves protection of people, infrastructure and economy. The session on internal security stressed upon the need to have a common National Geospatial Information System for all organizations and the importance and role of geospatial technology for homeland security

Key Outcomes:

- *Data management, planning and analysis, field/ mobile operations and situational awareness are important for internal security*
- *Need to have a common National Geospatial Information System for all organizations*
- *Geospatial technology is important for homeland security*

Maritime Security:

India is an important maritime state. Yet, at the same time, there appears to be a lack of a basic appreciation of the security aspects of maritime interactions and enterprise over the years. The session on Maritime Security addressed these issues effectively.

Key Outcomes:

- *Use of AIS (Automatic Identification System) to help track vessel in ocean*

- *Satellite imagery, as an aid for maritime domain awareness (MDA)*
- *Building of Maritime Situational Awareness and coastal surveillance infrastructure*

Emerging Trends:

Emerging techniques such as Human Terrain Analysis (HTA) and cloud are increasingly gaining popularity among the defence forces appeared to be the conclusion of the session on Emerging Trends. The session highlighted the use of GIS and image processing as a single solution for advanced intelligence analysis.

“Geospatial technology revolution will continue at a faster pace in future as Geospatial lies at the core of all future wars.”

Key Outcomes:

- *GIS and image processing can work together as a single solution for advanced intelligence analysis.*
- *A SMART GIS is the perfect GIS to connect and equip all users with the power of geography*
- *There is a need to share georeferenced maps, imagery, audio, video, Web services and other information among defence establishments.*



Participating Organisations@ GeoIntelligence Asia 2012

Army – Navy – Air Force

Army Base- Meerut Cant. || Army HQS || Central Command || Central Command – Lucknow || Directorate General of Information Systems || Directorate General of Electronics and Mechanical Engineering || Defence Image Processing and Analysis Centre || HQ TG - Indian Army || HQCP Energy Services || Indian Army – Artillery || Indian Army – DCOAS || Indian Army – IDS || Indian Army – Military Intelligence || Military Survey (MO-GSGS) || MO-Indian Army || Air Intelligence - Air Force || Indian Navy || National Maritime Foundation

Research Agencies

Aviation Research Centre || Bureau of Police Research and Development || C-DOT || Centre for Artificial Intelligence and Robotics || Combat Vehicles Research and Development Establishment || Defence Research and Development Organisation || Defence Terrain Research Laboratory || Snow and Avalanche Study Establishment

Special Forces

Border Road Organization || Border Security Force || Central Reserve Police Force || Indo-Tibetan Border Police Force || National Crime Record Bureau || National Security Guards

State Police

Assam Police || Delhi Police || Karnataka Police || Nagaland Police || Noida Police HQ || Police HQ ,Madhya Pradesh || Sikkim Police

Government Agencies

Airports Authority of India || Bharat Electronics Limited || Cabinet Secretariat (MHA) || Delhi Fire Services || Department of Telecom || Department of IT - Govt. of India || Dept. of Science and Technology || Directorate of Lighthouses & Lightships || Ministry of Defence || Survey of India

Academia

Army Training Command || Military College of Electronics and Mechanical Engineering (MCEME) || Military College of Telecommunication Engineering || Guru Govind Singh Indraprastha University

Industry

BAE Systems | Bentley Systems | Christie Digital Systems | DigitalGlobe | ESRI | Exelis Vis | Fabricator | Fedders Lloyd | Genesys | GeoEye | IIC Technologies Limited | India Semiconductor Association | India Strategic | Infotech Enterprises Limited | Integrated Digital Systems | Intergraph | IRS Infomedia | L&T Heavy Engineering | Larsen & Toubro | Maheshwari Computers | MapMyIndia | Mobiterra Solutions (I) Pvt. Ltd | Open Geospatial Consortium | Pitnet Bowes Software | Public News | RCE | ROLTA | RSI SOFTECH | Russian Federation Chamber of Commerce And Industry | Satpalda | Secon Pvt. Ltd. | SGS TEKNIKS | SP GUIDE | Sunsoft Technologies | TerraGo Technologies | Textron Systems | Trimble Navigation India Private Limited | UNESCO | UNI | VIZ EXPERTS

The exhibition running parallel to the conference was declared open to the delegates by the Lt Gen K Surendra Nath PVSM, AVSM, VSM, GOC-in-C, Army Training Command (ARTRAC), Indian Army. General K Surendra Nath visited every booth and had shown great interest in understanding the latest trends in the technology. The rather niche sector participation from the industry in the exhibition was welcomed by all participants and the display as well as hands-on experience which many of the exhibitors had arranged for the exhibition visitors was the highlight of the event. The exhibition was a learning experience for those who attended it and was highly successful. There was a great degree of enthusiasm among the exhibitors and it was found that almost all companies were represented by their senior executives.



List of Exhibitors at Geointelligence Asia 2012



CONTACTS

GeoIntelligence Asia 2012 Secretariat,
Geospatial Media and Communications Pvt. Ltd.
A - 145, Sector - 63, Noida (U.P) - 201 301
Tel: +91 - 120 - 4612500 Fax: + 91 - 120 - 4612555/666
Website: www.geointelligenceasia.org
Email: info@geointelligenceasia.org

SPONSORS

PLATINUM SPONSOR



GOLD SPONSOR



CO-SPONSORS



KNOWLEDGE PARTNERS



SUPPORTING ORGANISATIONS



MEDIA PARTNERS



ORGANISER

