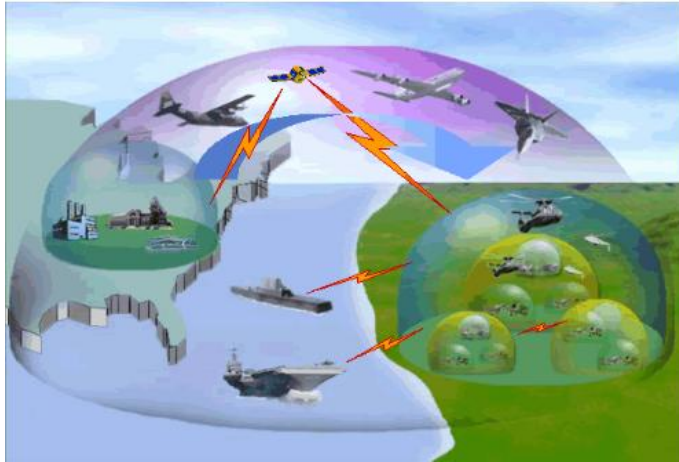




# Effective Use of Geospatial in Border Management

A VinayBabu





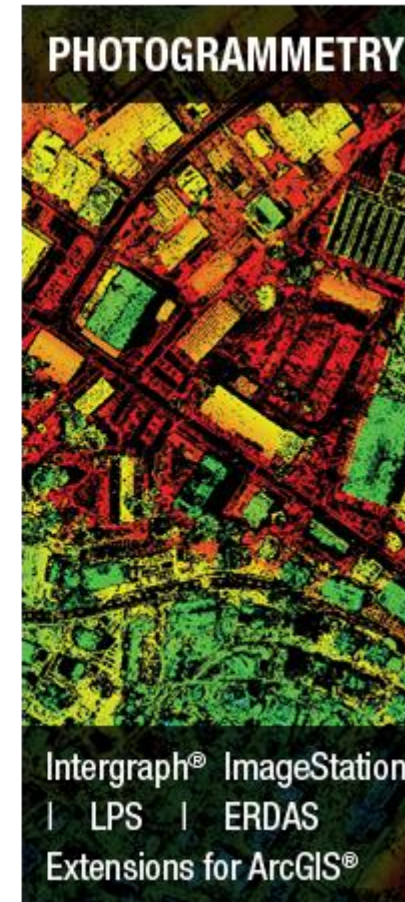
Collecting data about enemy systems and their movements is a continuous process through ELINT, ComINT, IMINT, Ground Based Electro-Optical / Radar Sensors – static and mobile.

Plotting the ORder of BATtle (ORBAT) on the electronic map is the key and building the tactical picture is the need of the hour

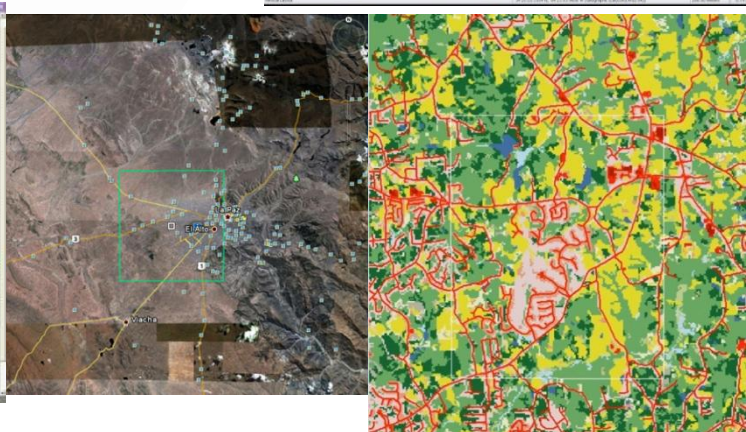
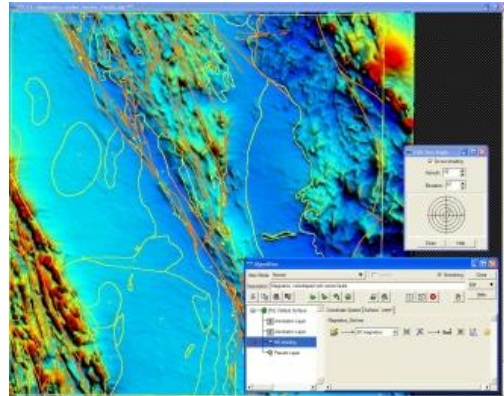
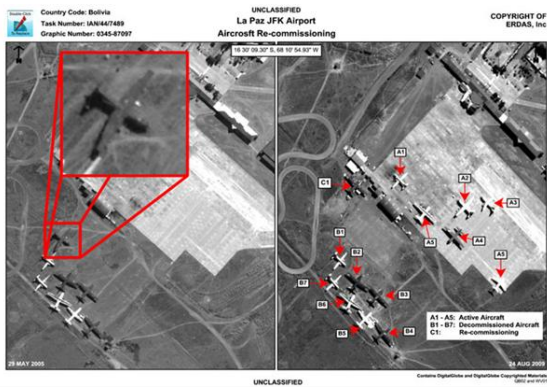
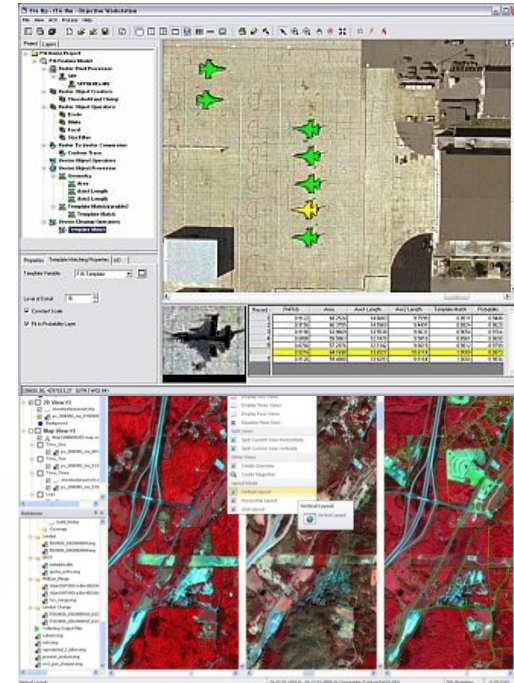
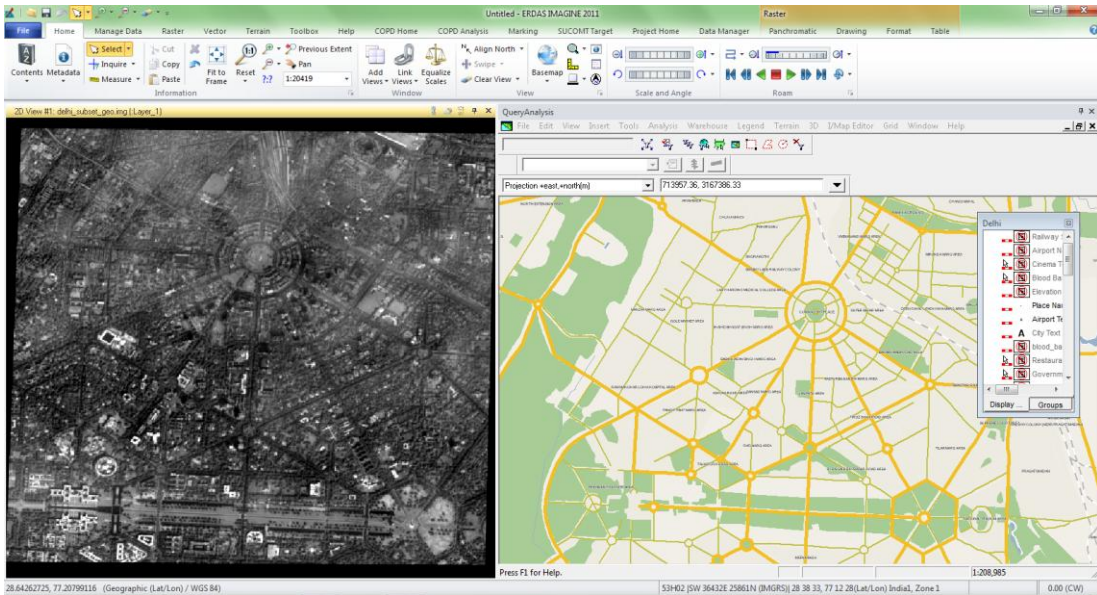


Thus the Continuing need of **Geospatial content!**

- One authoring system for geospatial production and analysis, with products specializing in the following geospatial ingredients:



# Integrated Remote Sensing and GIS Solution



# Interoperable Core Products



Various  
Enterprise &  
External  
Data  
Sources

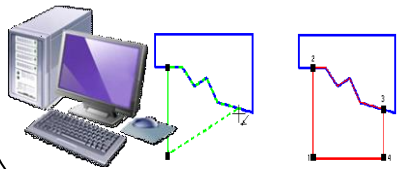
- Oracle
- SQL Server
- MS Access



- ESRI
- MapInfo
- Microstation
- AutoCAD
- .xml
- .gml
- WFS / WMS .....

Capture / Edit /  
Analyse /  
Manage

**GeoMedia™**  
Professional



**GeoMedia™**  
Industry Products



View / Query /  
Distribute / Capture

**GeoMedia™**  
Smart Client



View / Analyse

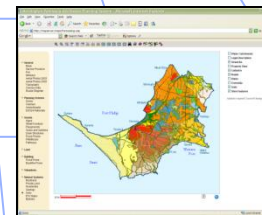
**GeoMedia™**



Publish  
**WWW**

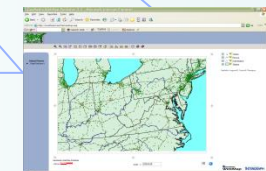
View / Analyse  
Distribute

**GeoMedia™**  
WebMap

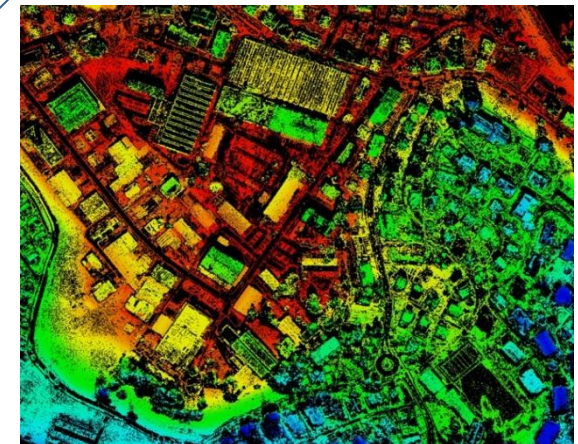
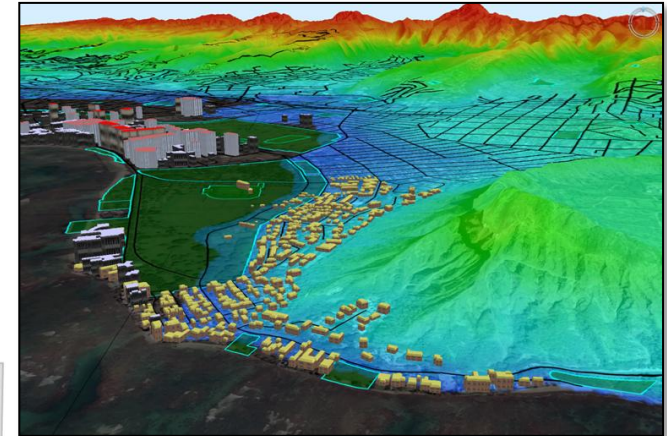
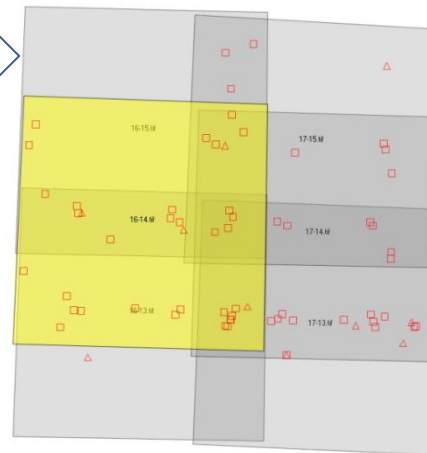
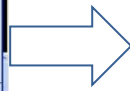
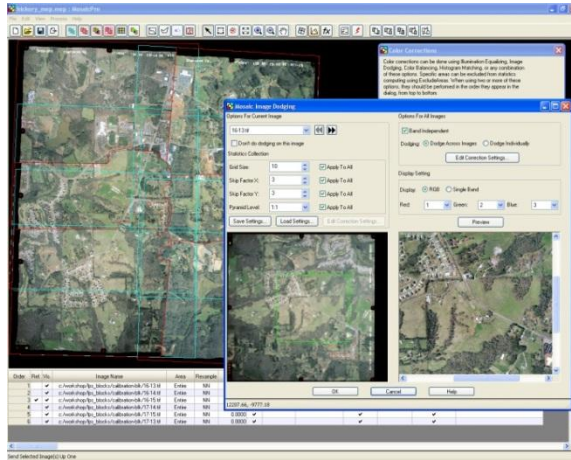


Capture / Edit /  
Analyse / Distribute  
/ Routing

**GeoMedia™**  
WebMap Professional



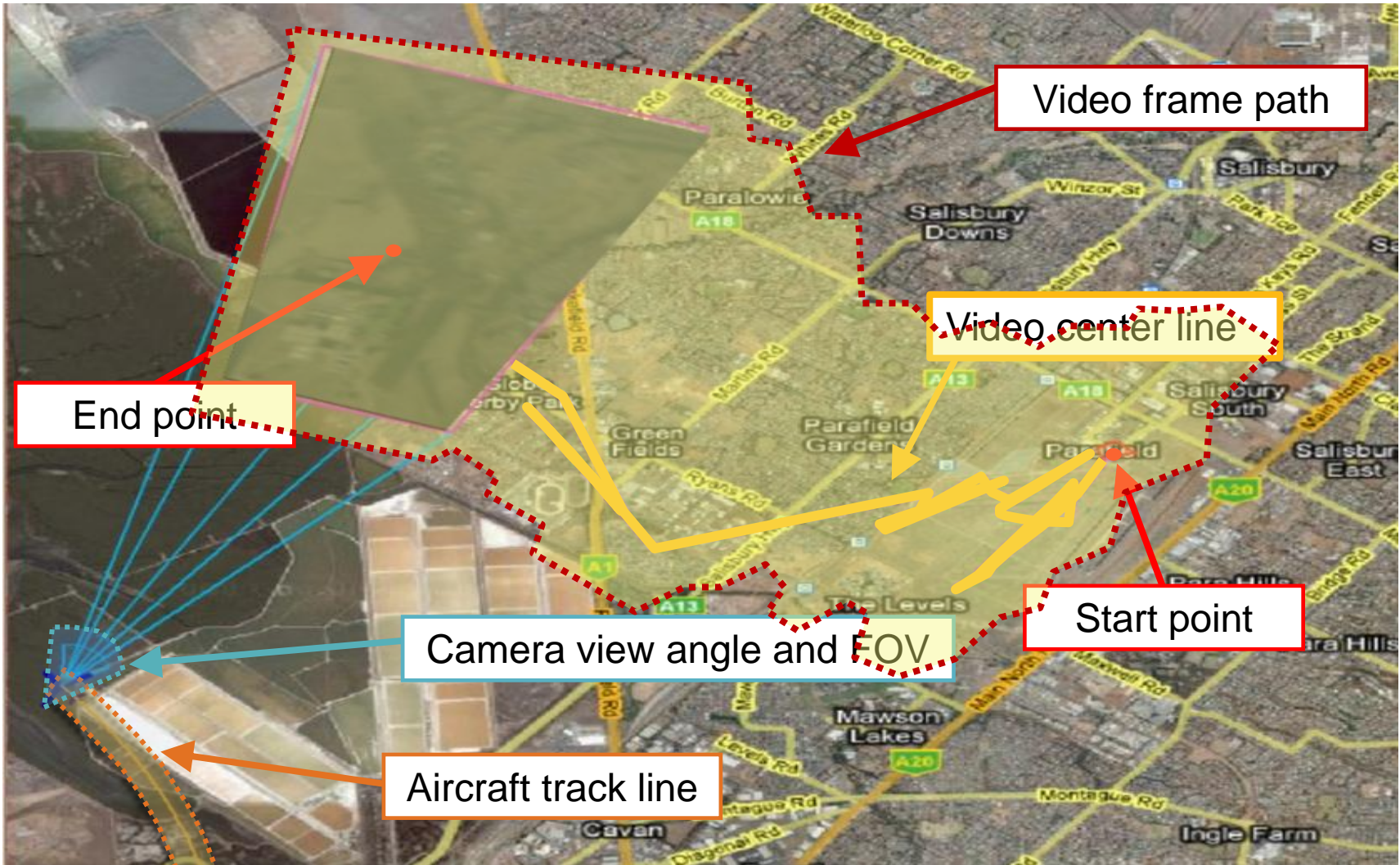
# Terrain extraction of the Changing world



# Motion Video warehouse



Archive all geospatial telemetry and metadata in an enterprise database

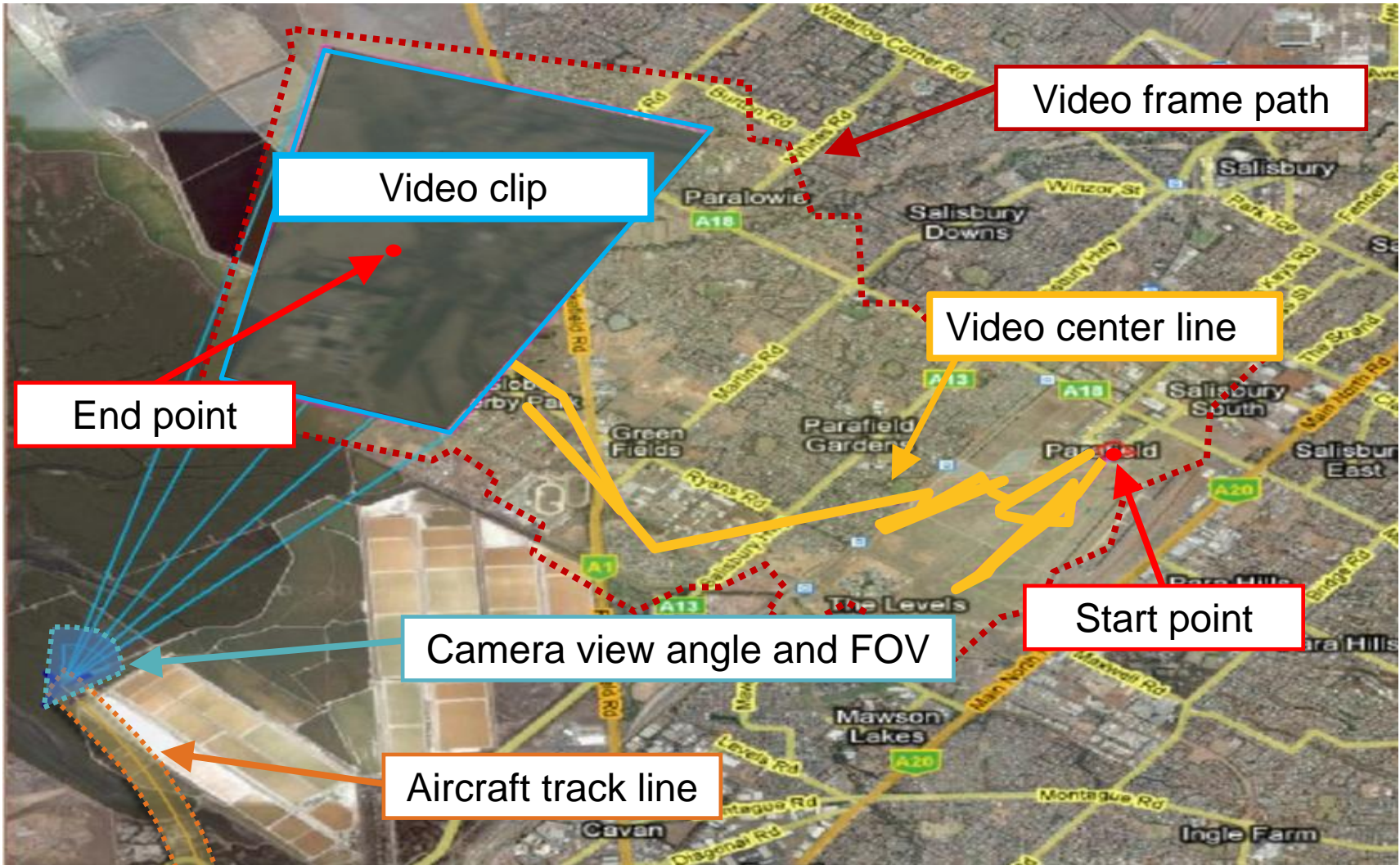


As your video is displayed or archived

# Motion Video warehouse



Archive all geospatial telemetry and metadata in an enterprise database



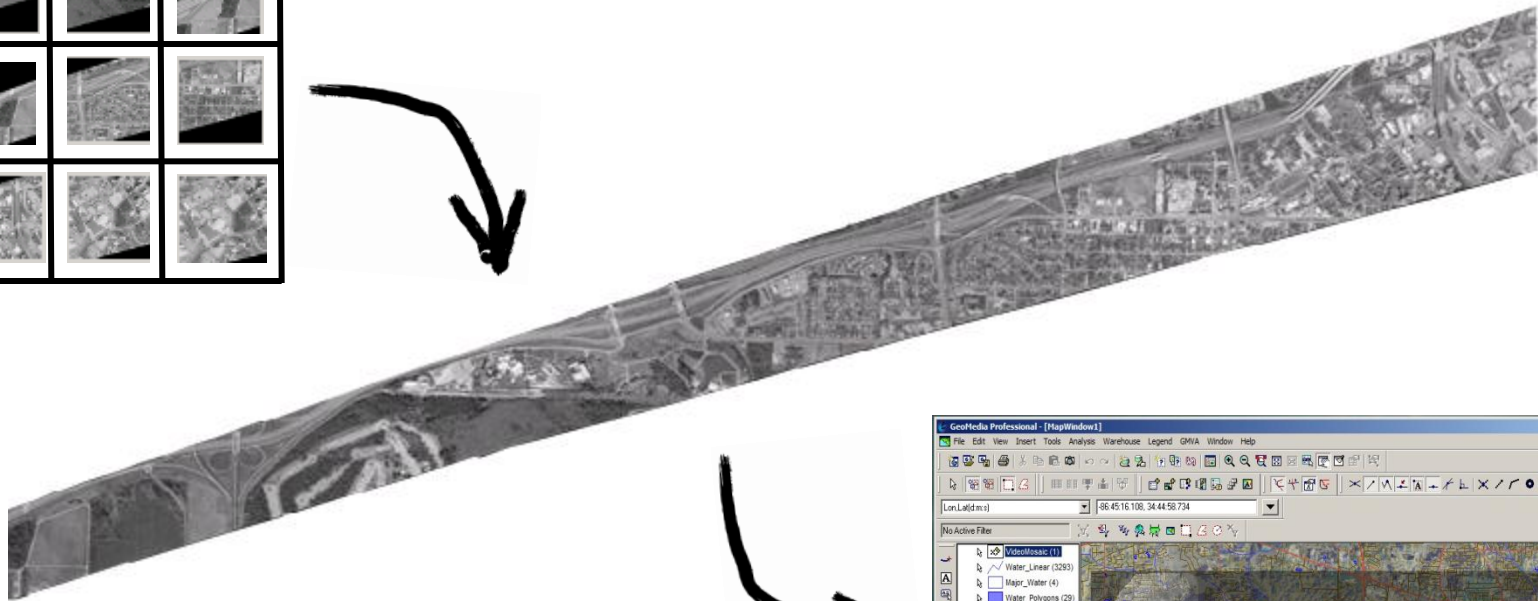
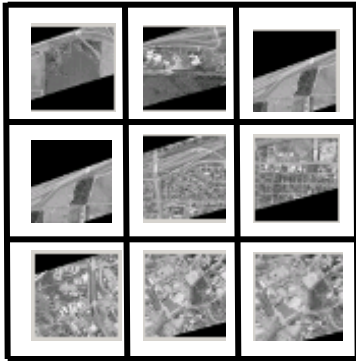
As your video is displayed or archived



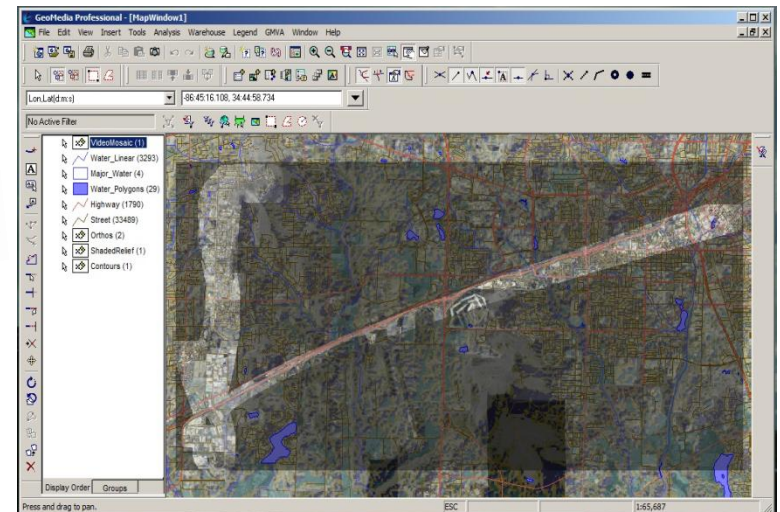
# GeoMedia MVA Pro



Generate mosaic images from your video frames.



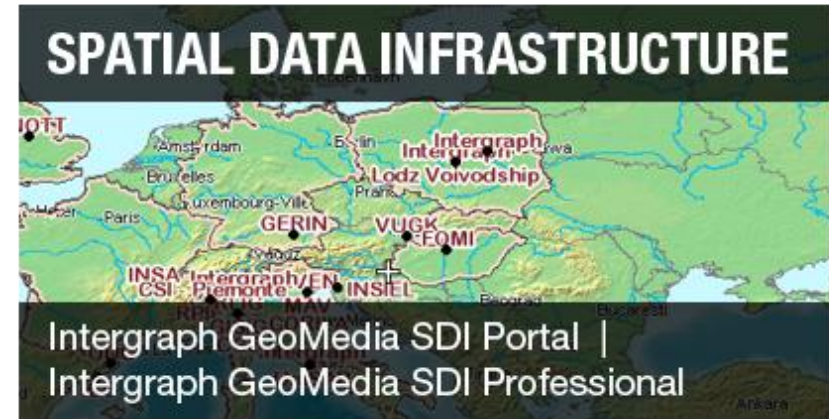
Use image analysis techniques  
- change detection



# Managing and Sharing the Data

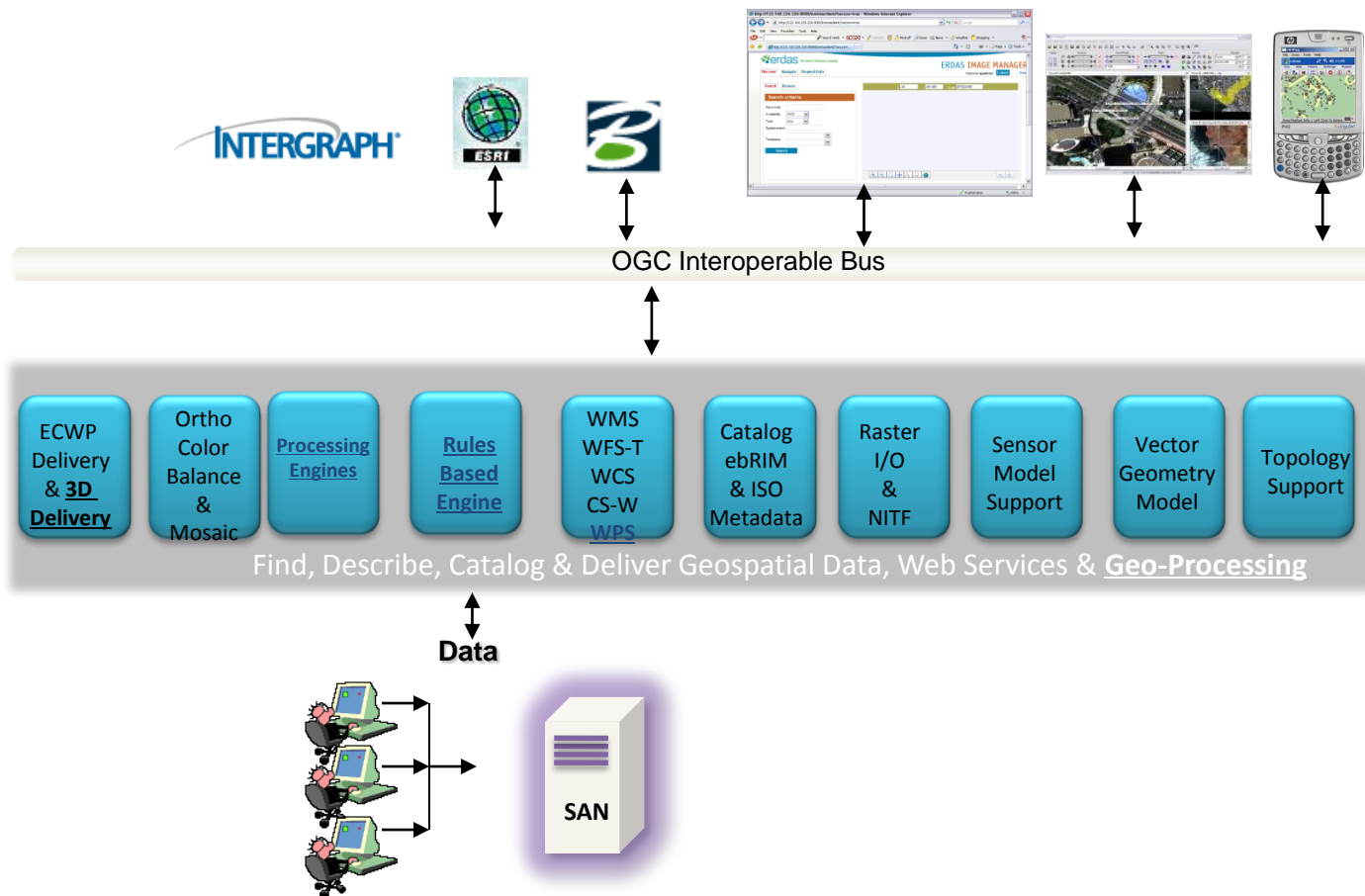


- Extend the utilization of geospatial data and information across departments and organizations by leveraging the following technologies:



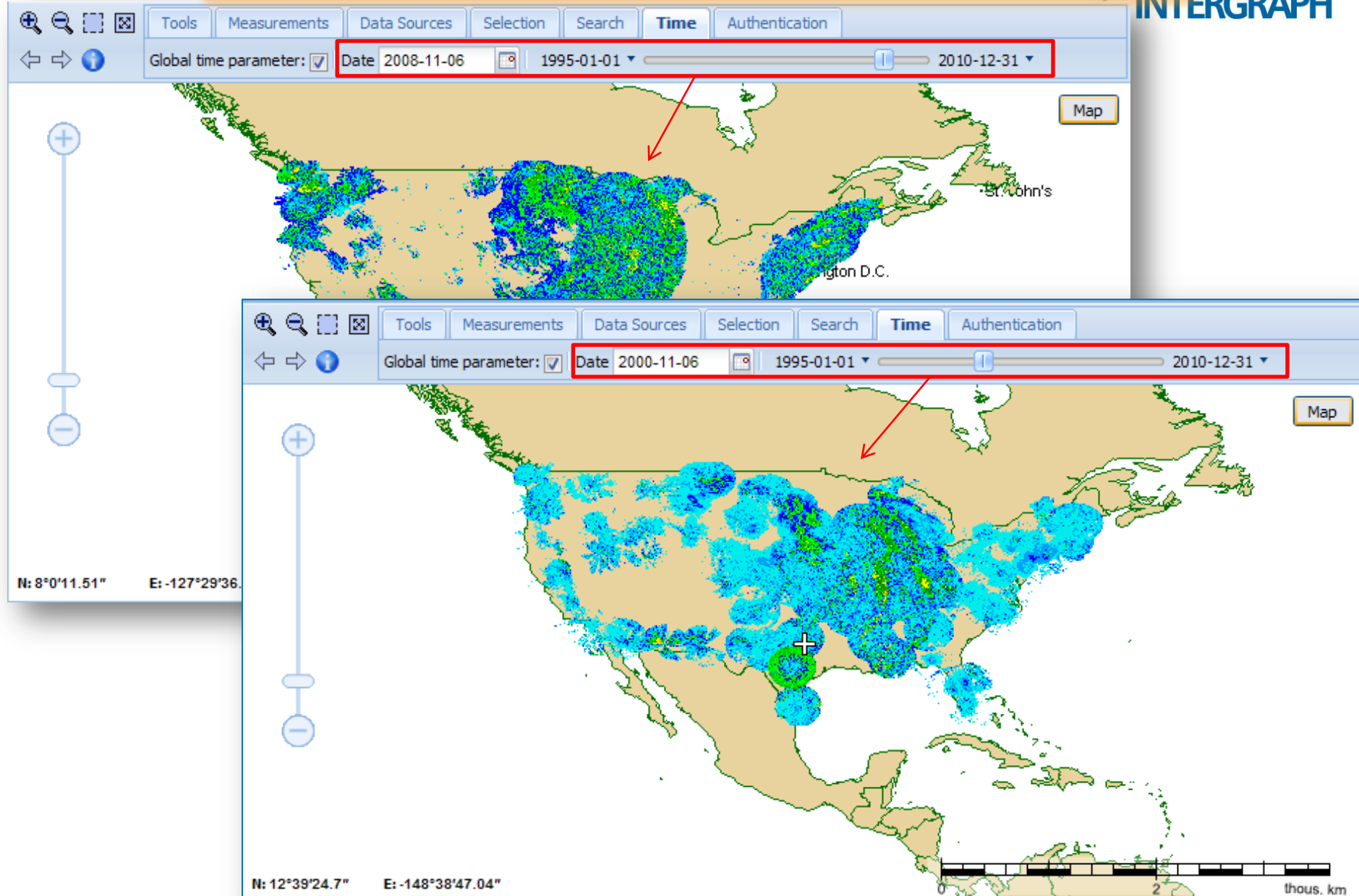
# Sharing the required Information

- Defense SDI in line with NSDI



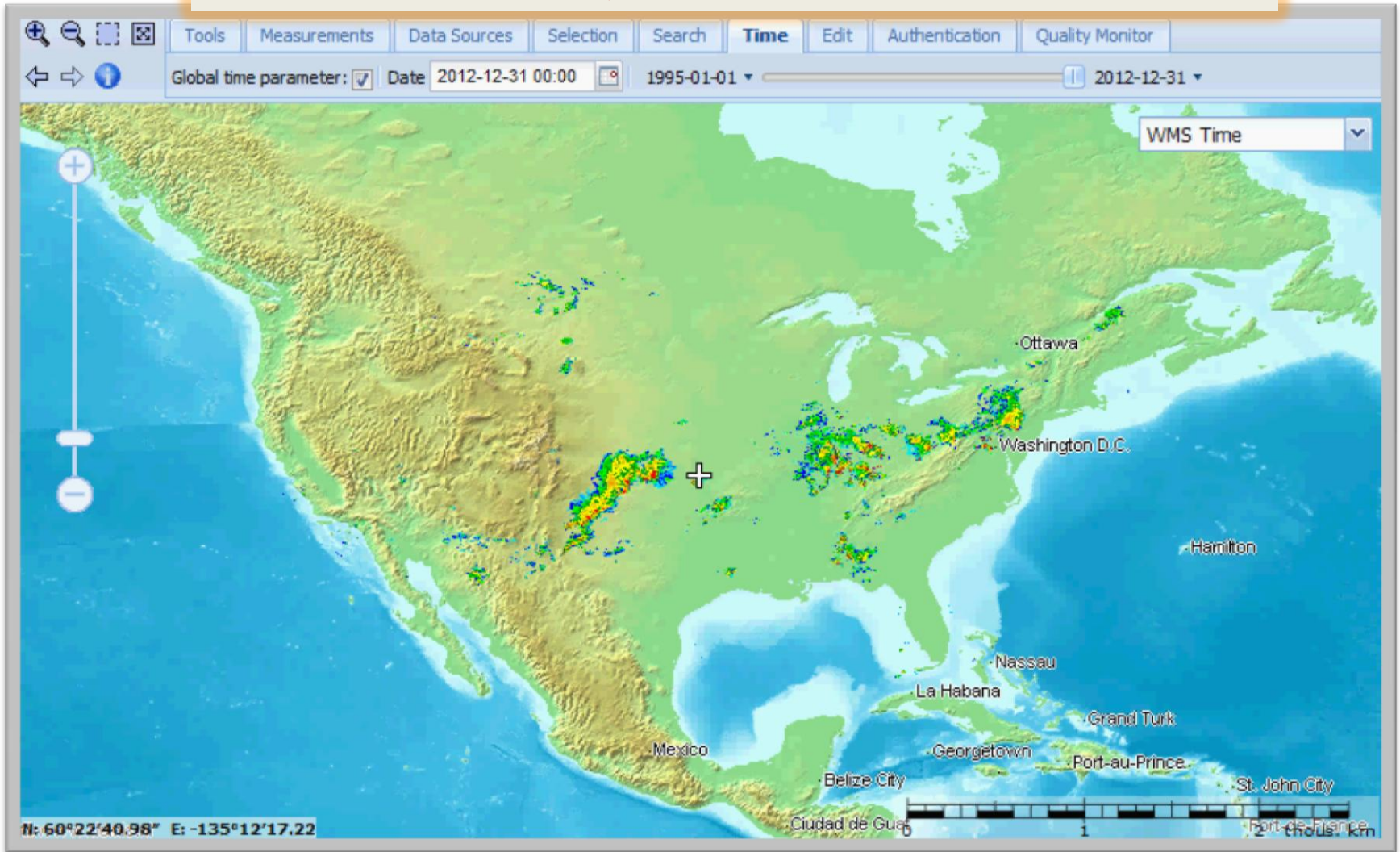
CAN WE SEE THINGS MORE  
DYNAMICALLY?

# Tracing meteorological phenomena changing in time.



# Tracing meteorological phenomena changing in time

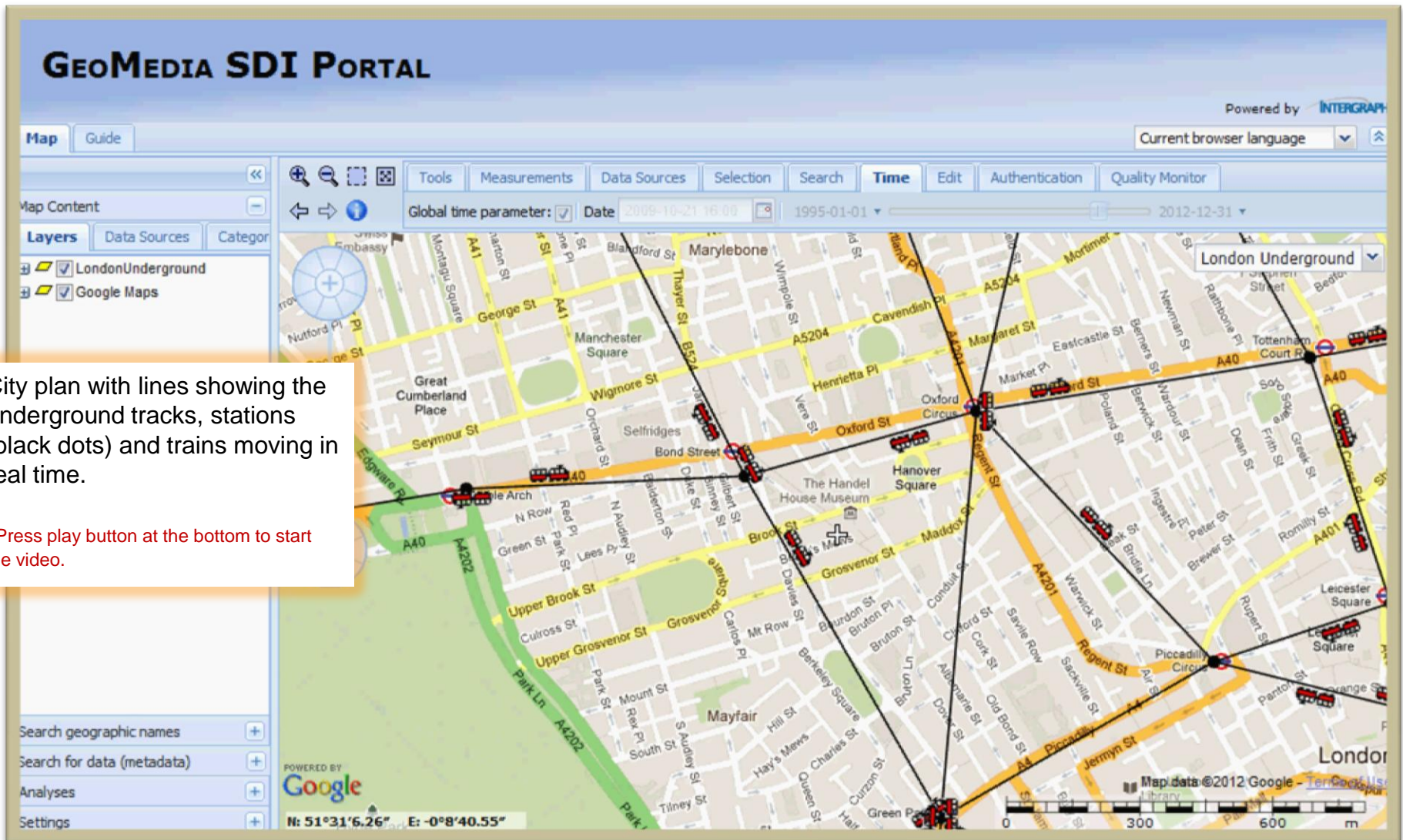
\*Press play button at the bottom to start the video.



**more dynamically?**

**Near real time?**

# London Underground train positions in real time

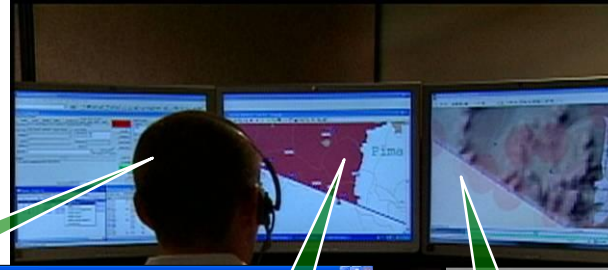




**Even more dynamic?**

**Dynamic GIS...**

# A Border Station Operator has Full Visibility, Decision Support, and Control



**Event details**

Case No.	Event No.	Event Type	Location
444	P00000	CAG_AGENT_REPORT	W HABEL ST N MAIN AVE
541	P00002	CAG_SSP_SENSOR	LL(-112:09:39:845)
1929	P00003	CAG_SSP_SENSOR	LL(-111:54:01:5066)
1929	P00025	CAG_SSP_SENSOR	LL(-111:54:36:8794)
1929	P00024	CAG_SSP_SENSOR	LL(-111:54:17:5246)
2530	P00007	CAG_JHAIUN_RPT	LL(-111:50:35:0118)
2640	P00006	CAG_AGENT_REPORT	LL(-111:45:25:7823)
2640	P00004	CAG_SSP_SENSOR	LL(-112:21:42:8613)

**Real time track prints of targets and agents on sector map**

**Live camera feed and control**

**Asset status, recommended dispatch**

Unit ID	A	Type	St	Location	Warning	Dist	ES	Dispatch
CAG1007	0	SUV	AV	LL(-111:50:35:0118,31:5...		>30.28 mi	*	Details...
CAG1003	0	SUV	AV	LL(-112:10:53:6868,31:4...		>44.57 mi	*	
CAG1005	0	SUV	AV	LL(-112:48:35:1792,31:5...		>49.11 mi	*	Rerun
CAG1006	0	SUV	AV	LL(-112:48:35:1792,31:5...		>49.11 mi	*	
CAG1002	0	SEDAN	AV	LL(-112:48:35:1792,31:5...		>50.16 mi	*	Close

**Events Pop-up**

Event Numbers: P00000  
Type: CAG\_AGENT\_REPORT - 1  
Locations: LL(-111:45:25:7823,31:53:13:3476) EST INDIAN ROUTE 19 PIMA  
Units: CAG1007, CAG1003, CAG1005, CAG1006, CAG1002

**Geospatial presentation of routes, data**

# Moving Static GIS to Dynamic GIS...



- Unleash the power of technology and enhance the coordination between the modern weapon systems



---

**OUR SOFTWARE SOLUTIONS PROTECTS 1 IN 12  
PEOPLE AROUND THE WORLD**

**WE ARE...**

A large version of the Intergraph logo, consisting of the word "INTERGRAPH" in blue, sans-serif font with a registered trademark symbol. A grey swoosh is positioned above the letters "I" and "N".

---

The Erdas logo, featuring a cluster of green and blue dots of varying sizes to the left of the word "erdas" in a blue, lowercase, sans-serif font. Below "erdas" is the text "an Intergraph® brand" in a smaller, grey, lowercase, sans-serif font.