

ACTIVITY-BASED INTELLIGENCE FOR ADVANCED ANALYTICS

UNDERSTANDING RELATIONSHIPS BETWEEN ACTORS AND THEIR ACTIVITIES AND TRANSACTIONS

BAE Systems has developed advanced solutions for photogrammetry; precision targeting; mission planning and tasking, collection, processing, exploitation and dissemination for the Department of Defense and national intelligence communities for several decades. We are applying this knowledge as we work with our customers in the field and invest corporate resources to identify and address new concepts in Activity-Based Intelligence (ABI) to streamline and optimize new analytic or collection planning workflows to improve mission response time, analyze patterns of life and develop anticipatory intelligence techniques.

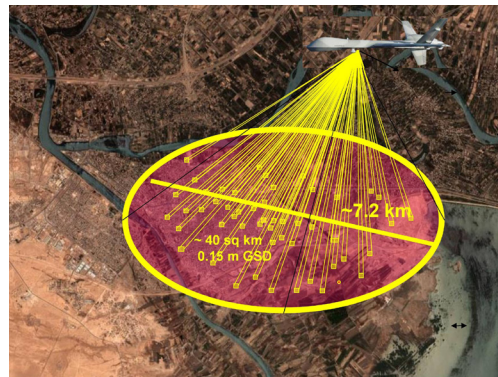
Rapid, High-Confidence Event Reconstruction

Operational Challenge: Current event reconstruction is time consuming and routinely ends in low confidence assessments.

- Full-motion video data with a narrow field of view provides limited event scope and coverage.
- Massive volumes of wide-area motion imagery (WAMI) data currently overwhelm analysts.

ABI Capabilities: The intelligence analyst reconstructs the event and discovers related actors, locations and events.

- Analysis in derived track space allows for faster viewing and filtering of activity while maintaining traceability.
- Massive amounts of raw WAMI data is reduced into distilled and usable information that is viewable as a sharable and collaborative activity set.



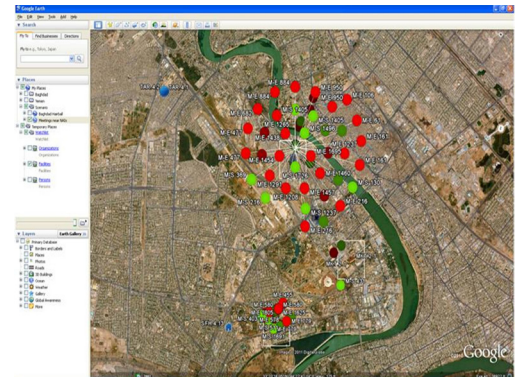
Counterterrorism and Counter-proliferation Tracking Development – Forensic

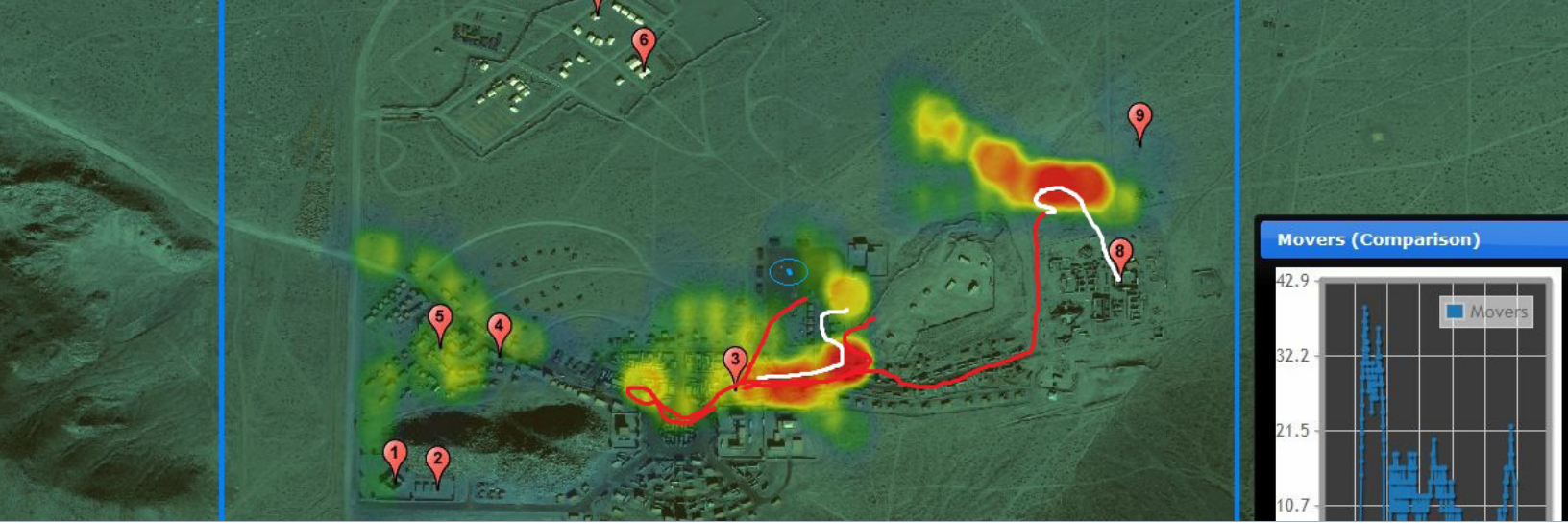
Operational Challenge: Manually tracking counterterrorism and counter-proliferation efforts and locations uses significant analyst resources and, often times, conjecture.

- An automated, at-scale tracking capability is lacking.
- Using patterns of life to make key connections is primarily a manual effort and therefore, routinely slow.

ABI Capabilities: To support counterterrorism and counter-proliferation tracking development, an intelligence analyst nominates several locations for monitoring, reviews detections of potentially important events and develops supporting patterns of life.

- Automated location monitoring and detection of significant behaviors shortens decision and reaction timelines.
- The analyst detects and classifies terrorist activity at more locations than by manual assessment.





ACTIVITY-BASED INTELLIGENCE FOR ADVANCED ANALYTICS

Knowledge Management for Situational Awareness

Operational Challenge: A lack of detailed situational awareness derived from multiple inputs and sources hobbles effective command-and-control (C2) decision making.

- Analysts must quickly organize and correlate information from multiple sources.
- Addition of WAMI sensors and multi-intelligence feeds dramatically increases data overload.

ABI Capabilities: An intelligence operator uses ABI capabilities to better and more rapidly understand and convey situational awareness information and alerts for their area and time of interest.

- Actors, organizations and patterns are detected and monitored during an operational intelligence rhythm.
- The empowered analyst creates, organizes, applies, collaborates and transfers knowledge to facilitate situational awareness and decision making.

Developing Patterns of Life for Command-and-Control and Intelligence Decisions

Operational Challenge: Richer and more robust patterns of life are needed to support timely, effective and efficient command-and-control and intelligence decisions.

- Traditional data retrieval and visualization methods drive lengthy timelines for pattern-of-life development.
- There is limited ability to directly correlate patterns-of-life discovery with operational C2 and intelligence decision making.

ABI Capabilities: An intelligence operator uses ABI comparison analytics to characterize typical town behavior to validate the information.

- Advanced analytics help characterize, locate and compare/contrast activities, driving rapid data exploration and discovery of significant events.
- Time-saving tools automate manual analysis tasks, thereby focusing the analyst's attention on detecting significant activity versus sifting through data.

Anticipatory Threat Detection

Operational Challenge: Analysts must utilize existing and emerging data sources rapidly enough to provide anticipatory threat detection data and alerts to operational forces.

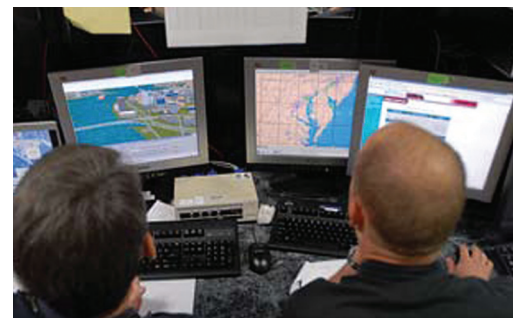
- Identifying adversary tactics, techniques and procedures (TTP) and intent quickly enough to impact ongoing operations is difficult.
- There is currently limited ability to correlate WAMI data with other intelligence.

ABI Capabilities: An intelligence analyst provides anticipatory threat detection data and alerts to support convoy force protection.

- Automated event detection (meetings, convoys, anomalous behavior), derived from recent data, help the analyst quickly identify enemy TTP patterns and provide insights to anticipate future threats.
- Shortened analysis timelines are instrumental to understanding and having confidence in threat-pattern assessments, which are critical in anticipating future courses of action.

Agile Methodology

Across BAE Systems, we are rapidly developing solutions using an agile user-engagement model to identify the most important needs and extract relevant and precise information from other sensed or unstructured data that is relevant to a specific mission objective. Our solutions are Web based and built to open standards to integrate with the Department of Defense and intelligence community enterprise architectures. We develop, test and integrate new capability every four weeks, as we better understand our customers unique and challenging mission needs, while advancing the discipline of Activity-Based Intelligence.



FOR MORE INFORMATION OR TO SCHEDULE AN ABI DEMONSTRATION, CONTACT:

BAE Systems
Jon Armstrong
 jon.armstrong@baesystems.com
 571 642 2929
Jim MacLeay
 james.macleay@baesystems.com
 858 603 3815

Join the conversation
 www.baesystemsintel.com
 www.facebook.com/baesystemsintel
 www.twitter.com/baesystemsinc

© 2013 BAE Systems
 All Rights Reserved
 All trademarks used are the property of their respective owners. This document gives only a general description of the product(s) or service(s) offered by BAE Systems and, except where expressly provided otherwise, shall not form part of any contract. From time to time, changes may be made in the products or the conditions of supply.