

# All Source Analysis System-Light: Rendering the Enemy Situation



Full MIL-STD-2525B, including MOOTW and custom symbology, and conventional and nontraditional warfare



ASAS-L supports OIF before, during, and after the fight

Today, ASAS-Light (ASAS-L) is the premier Army intelligence workstation supporting Operation Iraqi Freedom (OIF). A major reason for this is its success as a planning, visualization, and analysis tool before, during, and after the war in Iraq. ASAS-L is produced by Austin Info Systems, Inc. (AIS).

Using CJMTK, ASAS-L provides a command-level view of the conventional battlefield augmented with multi-intelligence support and icons for military operations other than war (MOOTW) and custom theater-specific symbology. ASAS-L was one of two early Army adopters of CJMTK with fielding now underway for deploying Army and Marine units.

Jim Wade, president of AIS, summarized the significance of the product by saying, "The current version of ASAS-L being fielded to deploying units provides the first multi-intelligence capable system that delivers both conventional and nonconventional asymmetric analysis capabilities."

## Overview

AIS developed ASAS-L, providing intelligence analysis to worldwide operations, including Kosovo, Iraq, and Afghanistan, with more than 2,000 installations. An authorized ESRI business partner, AIS incorporates ArcGIS, ArcSDE, ArcIMS, MapObjects®, and CJMTK in a variety of map-based workstations and Web-based geotactical displays. ASAS-L has now evolved to the next step, becoming the Joint Intelligence Toolkit (JIT). Beginning in July 2005, JIT will provide an extensible software product line-based feature set installable on new intelligence workstations.

JIT provides the war fighter with a multi-intelligence database, visualization, mapping, and messaging with plug-ins supporting collateral COMINT and ELINT. JIT also adds plug-ins supporting HUMINT, IMINT, and data fusion. Future plug-ins will be accredited for SCI operations supporting MASINT and COMINT. Based on standard ESRI GIS products, JIT readily integrates national-level intelligence products through standard ESRI file formats.

## Capabilities and Accomplishments

AIS has worked with ESRI for five years as part of replacing the existing Joint Mapping Toolkit (JMTK) in ASAS-L. AIS pioneered its own MIL-STD-2525B rendering system for increased performance and complete coverage of war-fighting icons, tactical graphics, and MOOTW symbols. By providing AIS with direct and intuitive control of map-based rendering, CJMTK has proven invaluable in ABCS integration efforts. The AIS JIT rendering software also supports Web-based map displays through ArcIMS. JIT also easily and seamlessly interfaces with ESRI's MapObjects for map-focused applications not requiring other GIS capabilities.

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JIT includes Emitter Mapper, a CJMTK-based, high-volume line of bearing (LOB) extension that analyzes and displays geolocations for stationary emitters as well as geolocations and predicted tracks for nonstationary emitters. A unique feature is the display of contours derived from the density of LOB intersections in a rich emitter environment. The Emitter Mapper software supports fast rendering of LOB data (peak refresh rates exceeding one million LOBs per second), extension toolbars, and dockable windows for analysis interfaces. As with all JIT products, import/export capabilities promote data sharing in a net-centric, war-fighting environment.

“ASAS-L is an outstanding addition to the intel community,” says Major William I. Brown, deputy G2 for the 101st Airborne. “It is a significant improvement over what we have been using. This product would have made all the difference for us if it could have been used in other areas of Iraq.” The new MIP 6325 multi-intelligence software capabilities in ASAS-L are an upgrade to the software used during the first deployment in the war in Iraq.

Maj. Brown noted key functionality of ASAS-L for accessing and modifying multi-int data. ASAS-L user-friendly functions include

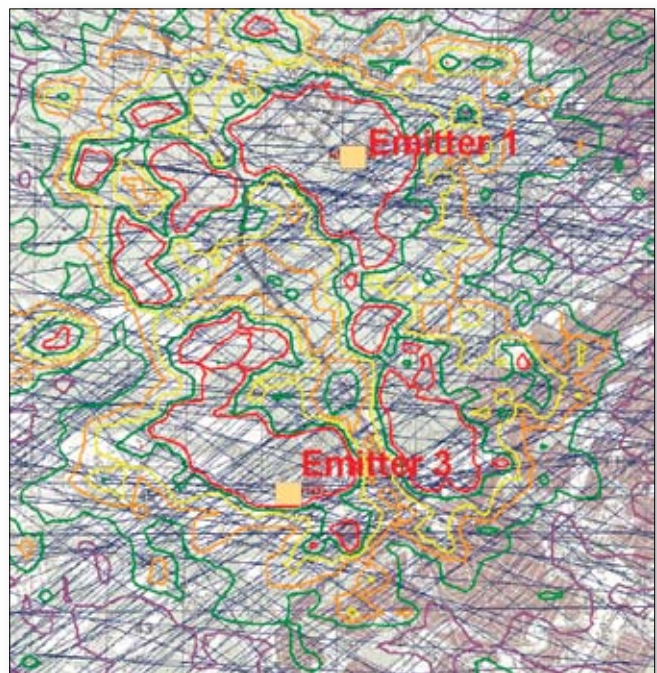
- A one-stop shop for information from all intelligence sources
- Concurrent display of all items
- Easy-to-sort linked charts
- Customizable charts

In an after-action report from Pfc. Jessica Lynch rescued by the 75th Ranger Regiment deployment, Maj. David Morrison stated the significance and usefulness of ASAS-L this way: “The ASAS-L provided me the ‘just-in-time’ data to help me formulate my IPB (Intelligence Preparations of the Battlefield) during our compressed/hasty MDMP (Military Decision-Making Process) to execute the mission. The ASAS-Light was the only system that I could use in the very short period of time to gain SA (situational awareness) on the area. We executed very quickly based on the amount of notice we were given prior to the mission execution.”

## Summary

AIS products work exceptionally well in conjunction with ESRI products to support the war fighter through

- Improved mapping capabilities
- Usability enhancements for analysis and visualization
- Better capability for collecting, analyzing, and displaying nontraditional COMINT collections
- Integration of national intelligence products
- Web-based map display and tools for data viewing
- Comprehensive, data-driven visualization tools, making it easier to query, display, plot, and edit related information
- Expanded features for resolving individually reported lines of bearing into composite locations
- Simultaneous correlation of records into a single data record or new network



*Locate terrorist activity through line of bearing visualization.*