

Overview of Situational Awareness Systems (SA-Sys)

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Introduction to Situational Awareness Systems



- Mission – To develop and deploy advanced information systems for Military, Homeland Security, and Healthcare domains
- By providing our users with superior situational awareness, we enable them to make the right decisions quickly—ultimately saving lives
- Focus Areas:
 - Biosurveillance
 - Command and Control
 - Data Mining
 - Incident Response and Management



SA-Sys Characteristics

- Faculty Owned Firm (East Stroudsburg University)
- Over \$1.2M in contracts awarded since 2005 inception
- Current Employees:
 - Eight part-time (undergraduate and graduate students)
 - One full-time employee (CPSC graduate student)
 - Consultants: Emergency Mgmt & Infectious Disease Specialist
- Business Strategy:
 - Maintain extremely low overhead and labor rates
 - Hire the best of the best among CPSC student body
 - #1 priority is providing superior value for our customers
- Member of [Pocono Mountain] Keystone Innovation Zone (KIZ)
- Member of ESU Business Accelerator Program



Business Milestones

Date	Milestone
July 2005	Company Established
Dec 2005	Awarded Phase I SBIR from ARDEC (Picatinny Arsenal, NJ)
Aug 2006	Awarded Phase II SBIR from AREDEC
Apr 2007	Received Phase II SBIR add-on task from Air Force Research Laboratory (Rome, NY)
May 2007	NEWS participated in Mass Casualty Exercise (Avian Flu Pandemic) for NE Pennsylvania
Jul 2007	Received \$75K grant from KIZ to commercialize the Common Operational Picture (aka, NEWS)
Sept 2007	Awarded Phase I Study for Biosurveillance System for Navy/Marine Corps Public Health Center (PHC)
Jan 2008	Awarded Phase II Contract with PHC
Mar 2008	Awarded Context-Aware Research Task from AFRL

SA-Sys Customers & Partners



- Customers:

- US Army Research & Development Center (ARDEC)
- Air Force Research Laboratory (AFRL)
- Navy & Marine Corps Public Health Center (formerly NEHC) and Global Emerging Infection Surveillance (GEIS) program



- Partners:

- St. Luke's Hospital, Bethlehem, PA
- Northeast PA Emergency Response Group
- Pocono Medical Center, East Stroudsburg, PA
- Center for Research & Economic Development

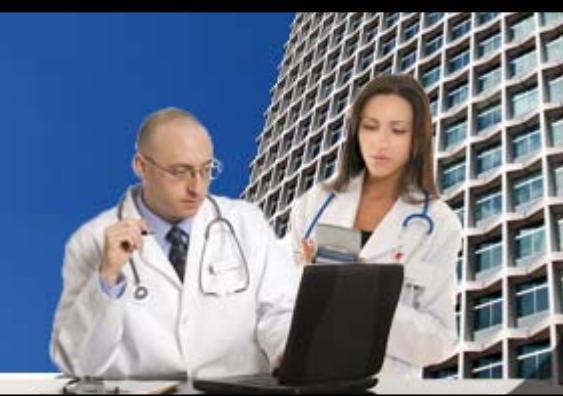




SA-Sys Principle Efforts

- **Network-Centric Early Warning System (NEWS)**
 - Client: ARDEC (Picatinny Arsenal, NJ)
 - Synopsis: Web portal for distributed emergency management across organizational boundaries; Automatic incident nomination driven by Situational Mining Services
 - Commercial Product: Common Operational Picture (COP)
- **Biosurveillance System for Influenza**
 - Client: Navy & Marine Corps Public Health Center (Portsmouth, VA)
 - Synopsis: Utilize Bayesian networks to categorize likely influenza patients and spot emerging epidemics world-wide
- **Tactical Information Prioritization System (TIPS)**
 - Client: Air Force Research Laboratory (Rome, NY)
 - Synopsis: Utilize Command and Control database (JC3IEDM) to automatically rate the applicability of messages to military units

COP FAQ Sheet



System Requirements

- Server (1+ GHz)
- 50 GB Hard Drive
- 2GB RAM
- Windows 2003 Server
- SQL Server 2005

User Requirements

- Any Web Browser
- Internet Connection

Hosting Options

- Self-Host
- Turnkey Installation
- Remote Account

Standard Features

- COP Portal (all displays)
- Mapping Service
- Chat Capability
- Integrated Help
- Automatic (2-way) Notification
- NIMS/HICS Compliance

Optional Features

- HL7 Situational Mining Service
- RSS Feed Mining Service
- Document Mining Service
- Web Portal Mining Service
- GPS tracking
- Automated Incident Nomination

Support Options

- Email support (included)
- Telephone support
- 24-7 support
- On-site support (up to 2 weeks)

Training Options

- Remote (2-day)
- On-site (3-day)

Additional Services

- Customization
- Data source integration
- Exercise support



Incident Profile



Users can view and take roles in incidents in their jurisdiction. Incidents can be created, and roles can either be manually assigned or automatically filled based on user availability. Users can be notified via e-mail, Text SMS Message, or automated voice phone call to determine user availability.

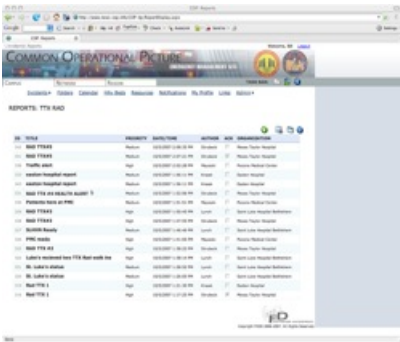
Heads-Up Display



The Heads-up Display (HUD) is present on every COP page. The HUD cues the user to the most up-to-date, relevant information.

Users are alerted to of changes in the currently selected incident, your assigned role, the number of alerts and reports, and the latest alerts.

Alerts and Reports



Users can view and alerts and reports to other users participating in an incident. Alerts appear in the heads-up display and will remain highly-visible until they are acknowledged. Reports are for more extensive information. They can be quoted and replied to like e-mail, and can have document or multi-media attachments.

Integrated Mapping

Incidents, personnel, and resources can be tracked by location and viewed on an annotated map. Interactive map controls to zoom and pan allow users to see other regional incidents. Objects can be filtered to only view relevant items.



Resource Management

Organizations can seamlessly manage and track resource allocation from the COP. Resources can be requested from other campuses or regional organizations, or available resources can be shared with other organizations.



Local and Regional Status Boards



Each incident has a local and an optional regional status board used to post issues that need resolution and to report on actions taken to resolve issues.



Upcoming Events

- Our Common Operational Picture (COP) product, a subset of NEWS, is deployed at St. Lukes Hospital in Bethlehem, PA for use in emergency management and related exercises.
- The COP has been tasked to support the Democratic National Convention in Aug, 2008
- Preparing to launch the COP as a commercial product (target date of Fall 2008)
 - Stop by our booth to learn more
- We are on schedule to deliver our Biosurveillance system to the Dept of the Navy in Sept, 2008.

Questions?

