



**Total Asset, In-Transit and Supply Chain Visibility**  
*Anywhere, anytime, worldwide*

**GLOBALTRAK<sup>®</sup>** 



**Awarded  
America's First  
Patent for a  
Supply Chain  
Monitoring  
Security System**

GlobalTrak® is in its 4th generation of development. Immediately following 9/11, SPC began development of a systems engineering solution for global supply chain security and efficiency to protect our nation's economy. The technology was field tested in 2003 through 2004 and is currently in the field globally.

**The operational advantages of GlobalTrak® include:**

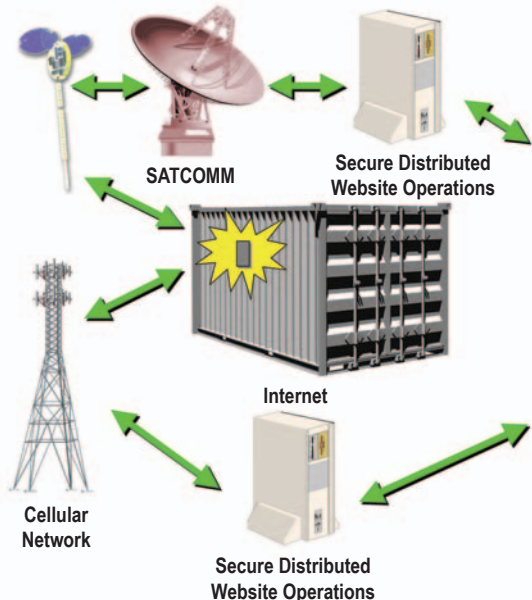
- Multiple modes of 2-way communication: ship container, trailer, truck, rail
- Worldwide satellite access
- Integration with legacy systems via document centric architecture
- Connectivity with other oversight technologies
- No legacy system modifications required
- Full auditability of entire intermodal journey
- No additional infrastructure investment required: readers, communication devices, terminals, or repeaters

**Immediate measurable results and the value proposition for Return on Investment (ROI):**

- Location and condition monitoring throughout entire supply chain
- Complete data from entire transit: temperature histograms, door events, time-stamped location, unscheduled events, GPS
- Redundant communications at lowest accessible costs: GPRS, SMS, SATCOM, ZigBee wireless mesh networks
- Total asset visibility with adaptive power (battery or connected)
- SPC's Information Management Bureau 24 x 7: virtual, secure, Web-based, real-time alert monitoring direct to designated stakeholders
- IMB machine-to-machine connectivity with other IT systems



(fielded since '04)



**GlobalTrak®  
Information Management Bureau (IMB)**

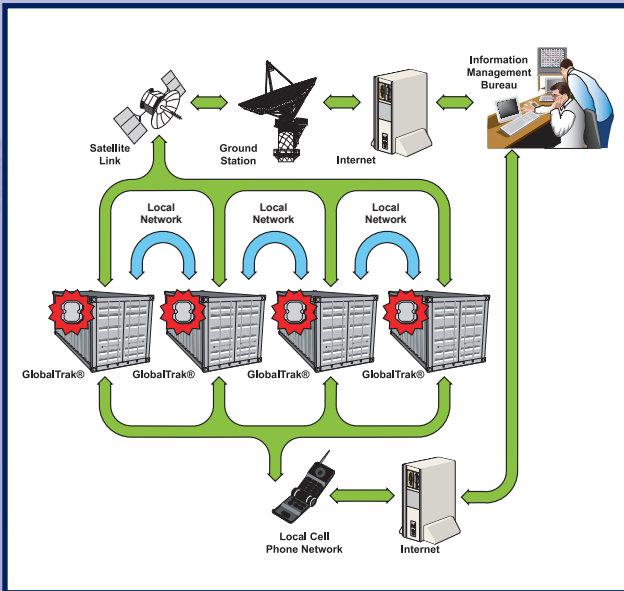
- 24 x 7 worldwide
- Automatic and manual oversight
- Total data fusion



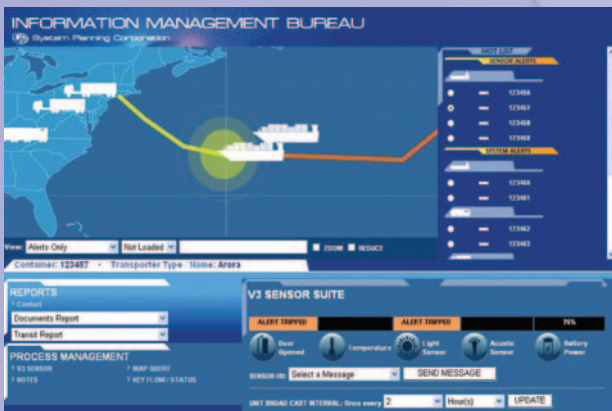
- Sensors:**
- Global Position
  - Door Position
  - Temperature
  - Acoustics
  - Light Source
  - Tampering
  - RFID (Capable)
  - Infrared (optional)
  - Vibration (optional)
  - Chem/Bio (optional)
  - Radiation (optional)



**STAKEHOLDERS**



**Information Management Bureau**  
24 X 7 monitoring and realtime alerts  
to designated stakeholders



GlobalTrak® does not require any hardware or infrastructure beyond the equipment contained in the container itself—no other readers, communication devices, terminals, repeaters, or other accessories are required.

## GlobalTrak® Defined

GlobalTrak® addresses the tradeline security issue with a revolutionary Container Monitoring Unit (CMU). The goods that are transferred via international ports of entry are vital to the success of the global economy. But increased connectivity is accompanied by added vulnerability. GlobalTrak® addresses the security issue with its unique container monitoring and alert system. The solution is an encased weather and shock-resistant unit, maritime certified, that tracks cargo across the globe using state-of-the-art satellite and cellular communications technology.

GlobalTrak® transfers data using redundant communication systems (GPRS, SMS, SATCOM, ZigBee wireless mesh networks).

It relays the status of a container's:

- Global position
- Door position
- Temperature
- Acoustics
- Light
- Tampering

The system may also be equipped with additional sensors:

- RFID
- Infrared
- Vibration
- Chemical/Biological Agent
- Radiation

## What Makes GlobalTrak® Work?

GlobalTrak®'s CMU transfers sensory data to the Web-based Information Management Bureau (IMB). It combines CMU data with shipping documentation (e.g., manifest, bills of lading, cargo contents), allowing you to keep a pulse on your cargo through real-time information streaming. GlobalTrak® enables:

- Worldwide data management and CMU access (reporting intervals, temperature threshold, trip deviation alarms, and report frequency)
- Secure, user-managed access to the information compiled at the data element level
- Real-time notification of container location, condition, and unplanned events

## GlobalTrak® and Your Business

GlobalTrak® intermodal tracking not only monitors and secures your cargo; it boosts efficiency by reducing shipping uncertainty. You and your customers are guaranteed total asset visibility and the ability to manage your inventory.

- Manage inventory of all in-transit goods with known arrival times.
- Manage inventory turnover with accurate stock location, age, and condition.
- Reduce and eliminate costly “just in case” inventories.
- Redirect cargo due to natural and other catastrophes.

## Why Choose GlobalTrak®?

GlobalTrak® is the first worldwide intermodal container security and monitoring system to be awarded a U.S. patent. It was recognized in 2002 by the Department of Homeland Security as the most comprehensive systems engineering approach to supply chain processes, and remains far ahead of its competitors. The GlobalTrak® system fuses observed sensor data with known shipment information. It attains levels of visibility and security not possible with any other commercially available system. GlobalTrak® is now deployed in the transportation, logistics, and security industries. Its benefits are two-fold, providing business value and an increasingly important national security solution.

Anytime, anywhere you will know the location and condition of your cargo and inventory. GlobalTrak® is the most competitive system currently in the marketplace and provides return on investment in less than the first week of a container trip.

### GlobalTrak® Product Details - Current V3:

**Operational Range:**

Global

**Connectivity:**

GSM Cellular and Satellite

**GPS:**

Yes

**ZigBee Equipped:**

Yes

**Sensors:**

Temperature, Acoustic, Light, Door Open/Closed; future sensors can be added through ZigBee

**Antenna:**

Combined Cellular/Satellite/GPS

**Battery:**

Configurable, 45 day to 1500 day life  
Alternative power connection

**Operating Temp Range:**

-40°C to +85 °C  
-40°F to +185 °F

**Weight:**

2.3 Kg (5 lbs) (Including Batteries)

**Enclosure:**

Environmentally Sealed,  
Marine Environment Certified

**Container Mounting:**

Internal or External

**Installation:**

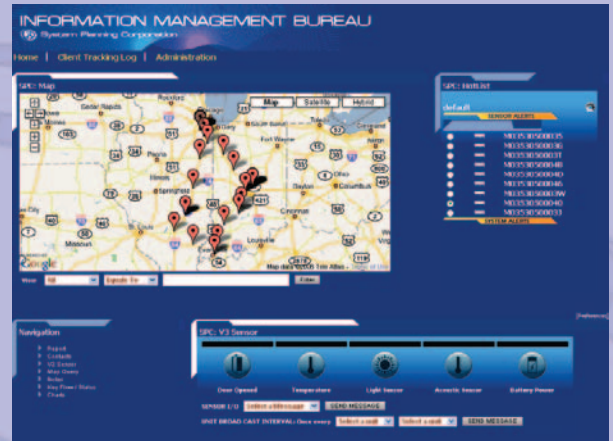
No Drilling Required

## GlobalTrak® Operational Advantages

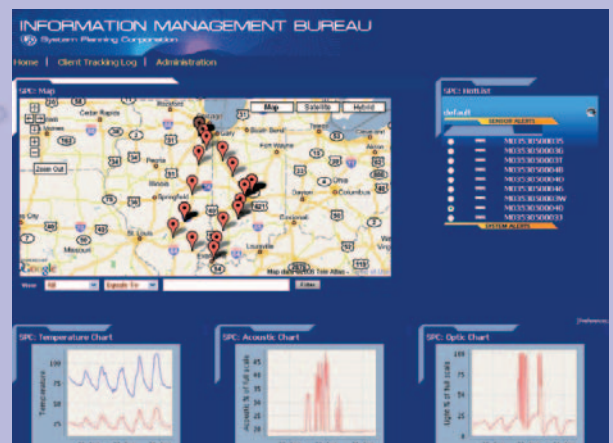
- Awarded America's First Patent for a Supply Chain Monitoring Security System
- Two-way communication via cellular, satellite, or mesh network
- Integration with legacy systems via document-centric architecture (no modification required)
- No additional infrastructure (fixed readers, terminals, or communication devices)
- Full auditability of entire intermodal journey
- Reduction and elimination of damaged or stolen goods


**SPC'S unique *Information Management Bureau* is the key to worldwide total asset and in-transit supply chain visibility and business process management**.....will improve asset utilization and enhance customer satisfaction worldwide — from point of overseas origin to point of destination — global retail shelf.

- Actionable, real-time information
- Manages the Container Monitoring Unit (CMU) network around the globe for cargo modes of transportation (ship, trailer, truck, and rail car)
- Creates an “envelope of information” for the cargo combining CMU information with shipping documentation, e.g., manifest, bills of lading, specific cargo content
- Incorporates a “light handshake” integration with existing IT legacy systems through XML, SMS, SAP, and MS Excel
- Remotely configures the CMU: report frequency, temperature thresholds, trip deviation alarms, unauthorized door openings and reporting intervals
- Alerts designated stakeholders in real time regarding the location, condition, and activities of the shipping container
- Compiles, consolidates, reports, and analyzes additional customer required information
- Provides secure user managed access to the information compiled at the data element level




***Creates an “envelope of information” for the cargo by combining the information from the field units with the associated shipping documentation***



Note: Container location  during a trip showing temperature histograms.

## **GlobalTrak® is a market leader for:**

- Defining “what” gets “where” it needs to be “when” it is needed in mission-ready condition
- Inventory management for all in-transit inventories with known arrival times
- Inventory turnover management with accurate stock location, age, condition, etc.
- Reduction and elimination of “just in case” costly inventories
- Redirection of cargo due to natural and other catastrophes
- End-to-end intermodal tracking: maritime, truck, rail, barge, reefer and air



# GlobalTrak® Unequaled Worldwide Supply Chain Visibility

## Real-Time Connection

## Real-Time Protection

## Real-Time Correction

SPC has more than three decades of designing and developing advanced technology solutions that make us a world-class leader. SPC has a reputation for its design and development of high technology systems, stealth and radar technology, and security solutions for the Department of Defense, the armed services, and the Department of Homeland Security. Such solutions have included critical intelligence services, ballistic missile defense; U.S. embassy facilities security worldwide; and homeland security preparedness and recovery for the first responders, airports and seaports. Our global partners add strength to the team and include:

**E J Brooks:** World's largest developer of ISO-approved mechanical and electronic seals  
**VI Agents, LLC:** IT provider of message management systems for telecom and RFID industries



U.S. Patent # 7,098,784

Developed by:



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