



# GIS Solves Crimes

The logo for IPNweb, featuring a blue puzzle piece icon to the left of the text 'ipnweb' in a blue, lowercase, sans-serif font.

Ilyas Hamidzai  
President  
IPN WEB, Inc.



# About IPN

---

- Systems integrator founded in 2004
- IPN is an SBA Certified 8(a) and Small Disadvantage Business
- Headquartered in the Washington DC area
- Specializes in GIS architecture & software integration
- Certified staff in multiple disciplines
  - GISP, ITIL, CISSP, PMP, etc.
- Continued contributions to the technology community

# ATF/USBDC

- United States Bomb Data Center (USBDC)
  - The mission of the USBDC is to collect, analyze and disseminate information and intelligence products in order to assist U.S. federal agents, investigators from state, local, tribal and military departments, and international partners in preventing violent crime.
- USBDC is part of Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF)
- IPN worked closely with ATF subject matter experts to provide all Federal, State and local law-enforcement users with the capabilities to track and share both Bomb and Arson information.



# Bomb Arson Tracking System (BATS)

- A free service from ATF to
  - Federal, State and local law-enforcement
- Congressionally mandated to be used by all Federal agencies that deal with Bombing and Arson incidents
- A web incident management application with GIS
- A Case management system with over 10,000 Federal, State and local law-enforcement users
- Communities based application allowing each Agency to administrates and setups sharing permissions with the rest of the communities.





# Geo-Enable Objects & Images

- What would make sense to put on the map?
  - Incident Locations
  - Vehicles Locations
  - Subjects and their Address Locations



# Searching with a Map

BATS GIS map integrates with services to find results with incident types, devices, people and vehicles

Main Menu > Map

Incidents in the Past: 7 days

State: [Dropdown]

Explosion
  Fire
  Hoax
  Loss of Explosives
  Recovery
  Suspicious Package
  Theft of Explosives
  Threat
  Show Agencies
  Crime Analysis

Streets
  Topo
  Imagery

Buffalo

Incident Information	
Case Number	001122
BATS ID	<a href="#">15132</a>
Type/Subtype	Explosion/ Accidental
Date	04/20/2014 10:00
Agency	ATF - USBOC
Incident Address	3710 Winchester road Springfield Sangamon.
State	IL
Investigator Name	USER602, BATS

Device Information		
Thumbnails	Type	Materials
	Device	Bottle/Jug, Ignitable Liquid, Wick
<input type="button" value="Find Similar Device"/>		

State and Local agencies have access to Federal and national incident information.

# Old School Data Sharing & Mapping



# BATS Data Sharing & Mapping


Incidents: In the Past 90 days

State: [dropdown]

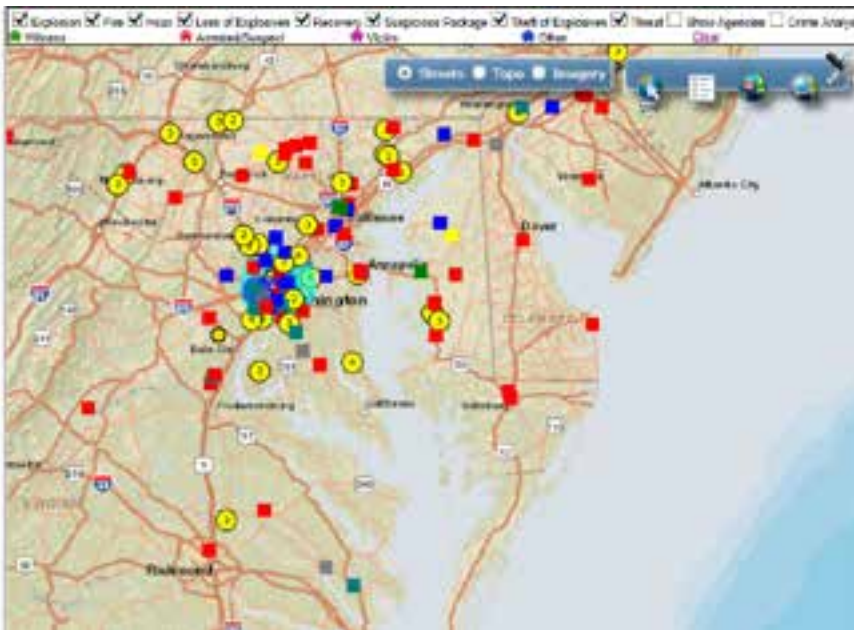
**Incident Information**

Case Number	200411-5123-52-1
BATS ID	130730
Type/Subtype	Fire/Incendary
Date	04/26/04 18:00
Agency	A1F - USBDC
Incident Address	4023 Appleton MANASSAS PRINCE WILLIAM
State	VA
Investigator Name	NORTEL OMB

**Device Information**

Thumbnail	Type	Materials
	Explosives	Ignitable Liquid

Find Similar Device





# Spreadsheet vs. Map

Incident proximity is hard to see

Enables investigators to visually find patterns and connecting the dots

Web Menu Search Incident Search Results Back To Search

Found 10 incidents. Click on a column heading to sort results. Row 1224387219 Next Page 10 Results Per Page

Case	Case Number	BATS ID	Type/Subtype	Result	Date	Agency	City/Country	State	Investigator Name	Access Rights	Map
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											
9475	2011-2123-32-3	12825	Recovery IED	04282014 18:00	ATF - USDOC	TIDE Park NEW YORK NEW YORK	NY	US67071 0473 (202) 466-7789 NORTH CHRIS	View Modify		
Device Found: <a href="#">Device name: Device 1</a> - <a href="#">At police, on/Off</a> - <a href="#">Placement: 5200 Sat Placement</a> - <a href="#">At police, on/Off</a> - <a href="#">Sat. Name</a>											

**Incident information**

Case Number: 256211-61323-32-1

BATS ID: 136783

Type/Subtype: Recovery/Explosives (non-IED comm, mil, fireworks, HME)

Date: 04/28/2014 18:00

Agency: ATF - USDOC

Incident Address: 2600 17th SARASOTA SARASOTA

State: FL

Investigator Name: NORTH, CHRIS

**Device information**

Thumbnails	Type	Materials
	Explosives	Black Powder

Explosion 
  Fire 
  Heat 
  Loss of Explosives 
  Recovery 
  Suspicious Package 
  Theft of Explosives 
  Witness 
  Arrested Suspect 
  Victim 
  Other

Streets 
  Topo 
  Imagery

Does the spreadsheet or Map provide more information at once?  
 Both have value, GIS enhances the usability of the data with visual representation.

# Connecting The Dots By Devices

The screenshot displays a web-based incident investigation tool. On the left, there is a sidebar with the following sections:

- Incident Information:**
  - Case Number: 765085-09-0034
  - BATS ID: [657]
  - Type/Subtype: Explosion/ Accidental
  - Date: 04/05/2014 00:00
  - Agency: ATF - USBDC
  - Incident Address: 2412 colstoon Silver Spring
  - State: MD
  - Investigator Name: NORTH, CHRIS
- Device Information:**

Thumbnails	Type	Materials
	Device	Pipe, Black Powder, Bb's/Buckshot
<a href="#">Find Similar Device</a>		
	Device	Pipe, Smokeless Powder, Bb's/Buckshot
<a href="#">Find Similar Device</a>		
- Vehicle Information:**
  - Automobile/Chevrolet

The main area shows a map of the Washington, DC area with various incident markers (yellow circles with numbers 1-5) and a network of purple lines connecting them. A legend at the top lists incident types: Explosion, Fire, Hoax, Loss of Explosives, Recovery, Suspicious Package, Theft of Explosives, Threat, Witness, Arrested/Suspect, and Victim. A portrait of a man and an image of a device are also visible on the right side of the map.

Investigators can look for specific devices and find connections between unrelated incidents to increase chances of solving cold cases and to communicate with other agencies to share information.

Similar devices signatures found in different incidents may have a connection.

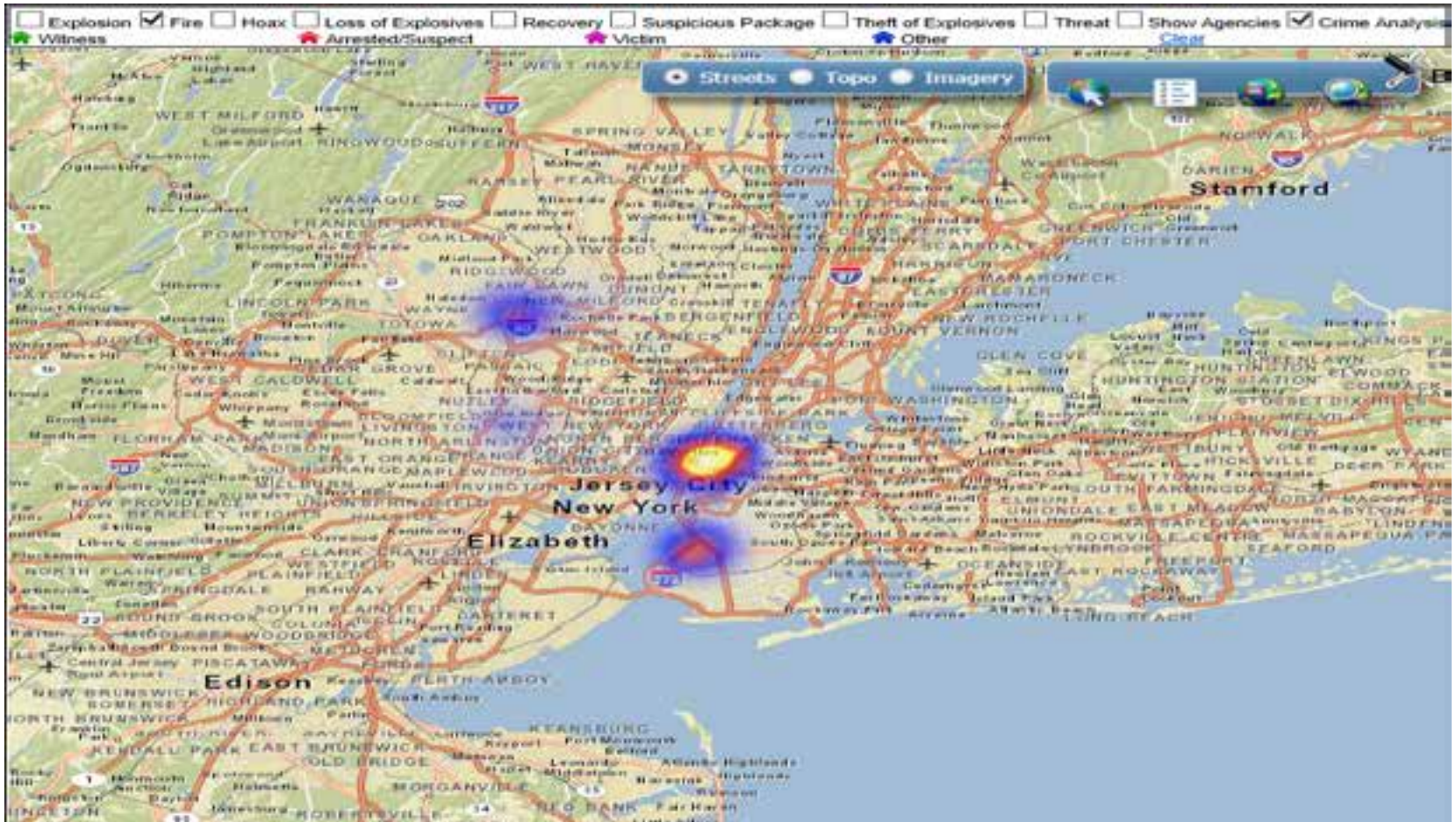
# Astronomical Coincidence



BATS GIS mapping can solve crimes and provides a new tool to arson and bombing investigators in quickly find the perpetrators.

What are the chances that the same person is involved in more than one incident?  
Example: same witness in two different arson incidents.

# Make GIS Data Work For You



Proximity and heat map is used to find basic crime patterns.

Its is time for the geo-spatial data to provide information to you.

# Conclusion

---

- BATS GIS allows investigators to visually find patterns and connect dots to solving and capturing serial arsonist and bombers.
- BATS enables Law enforcement communication and collaboration.
- GIS is an integral part of law enforcement case management systems and will speed up any investigation.

# Contacts

Ilyas Hamidzai  
President  
IPN WEB, INC  
2275 Research Blvd Suite 500  
Rockville, MD 20850  
**Phone:** 301-296-4234  
**E-mail:** [ilyas.hamidzai@ipnweb.com](mailto:ilyas.hamidzai@ipnweb.com)



**Law-Enforcement - BATS Account**  
To *apply* for a BATS account or take a tour for additional information click [here](#)

United States Bomb Data Center  
99 New York Avenue, NE  
Washington, DC 20226 USA  
**Phone:** (800) 461-8841  
**E-mail:** [USBDC@atf.gov](mailto:USBDC@atf.gov)