





# Pier 22 **Blast Busters**

### **Objective Real-Time Monitoring of Explosions**

**Re-Imagining Data** as Objective Witness

> **Re-Inventing Ears and Hearts** as a Network

**Re-Designing Decision-Making** 







What?

Where?

When?

Who?

# Subjectivity versus Objectivity

Eye-witness accounts and Official Statements

VS.

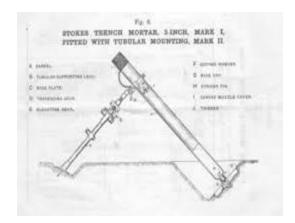
Real-Time Monitoring
Based on Multi-Technology
Sensing

#### **Data that bears Witness**

Hard Data/Physical Monitoring
Delivery acoustic signature
Explosion acoustic signatue
Exit acoustic signature

Soft Data/Emo-mapping
Tweets by geolocation
News feeds







#### **Cluster bombs**

Nearly 100 countries are signing a freaty to ban cluster bombs, while the leading producers of the bombs, including the U.S., Russia, China and Israel, remain outside the pact.

2. Spinning

(contains

canister opens

#### How cluster bombs work

- 1. Canister released from aircraft
- Comes in variety of shapes, sizes
   Typical weight
- Typical weight 1,000 lb. (454 kg)

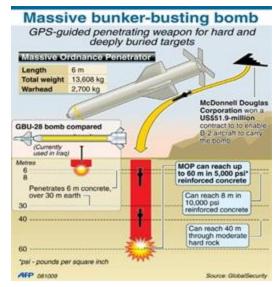
#### © 2008 NOT

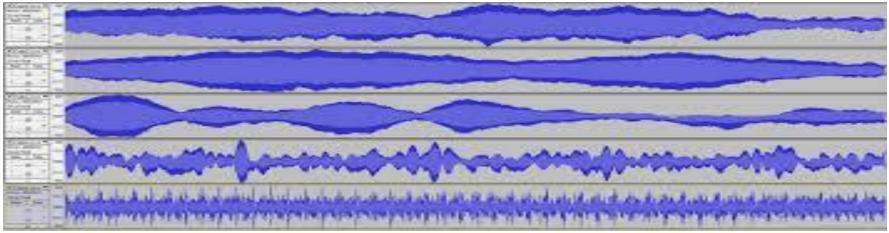
Source: Federation of American Scientists, Human Hights Watch, Cluster Munition Colation Graphic Chicago Tribune about 200 bomblets)

- 3. Individual bomblets float down to target Length 8 in. (20 cm)
- Parachute-like device attached
- Breaks into small metal. " fragments upon detonation
- Many tail to go off immediately; civilians at risk when bomblets accidentally defonated

Bomblets

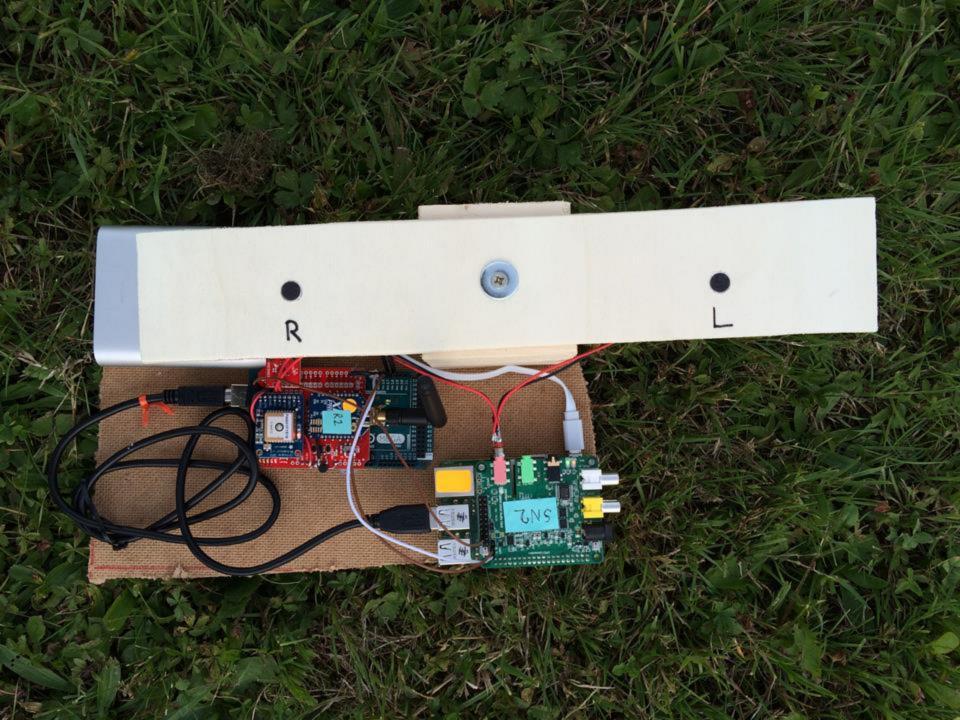




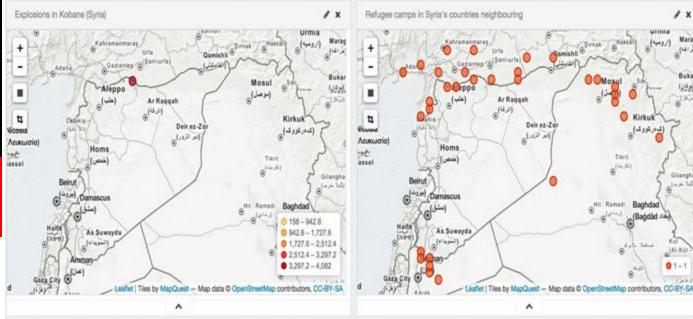


The Tech
that empowers
Justice to
Hear, Listen,
Remember, Act





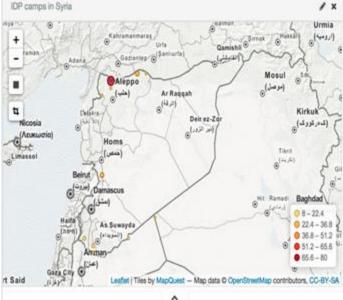


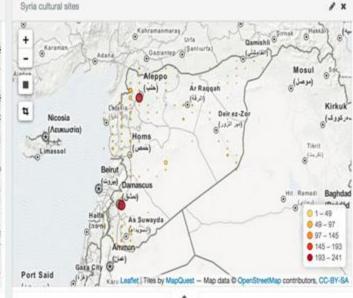


Number of Explosions in Kobane on J... 🖋 🗙

3,447 Count

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Gilanghai

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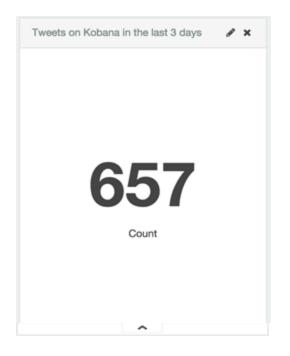
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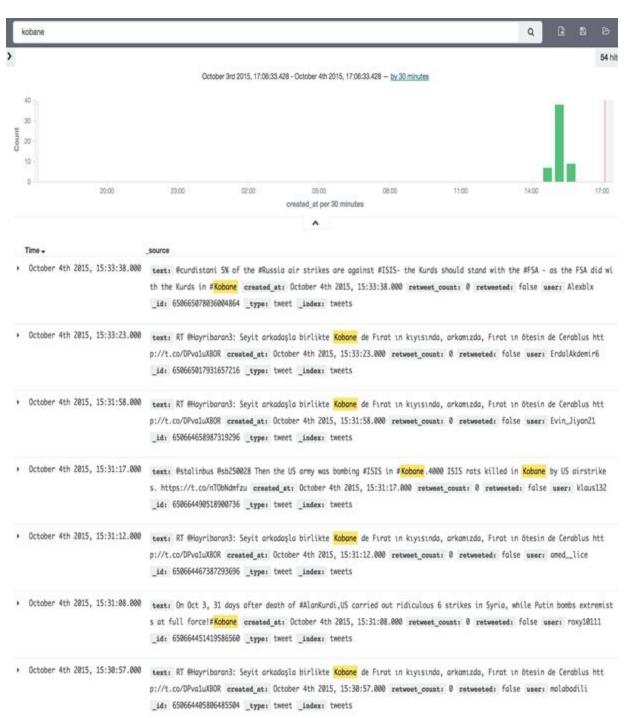
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Hit Ramedi Baghdad

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# e3e Monitor

**Explosion and Extreme Energy Event Monitor** 

Pier 22

The Blast Busters

http://theport.ch/e3e/

http://blastbusters.org/

