

Mobile Information Technologies and Managed Access

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http://www.sandia.gov/ctb/ctb/mobile_technologies_and_managed_access.html

Managed Access Techniques

| | |
|--|---------------------|
| Shrouding | Partial access |
| Denial of access | Sampling |
| Random access to a subset of locations | Constrained viewing |
| Alternative information | |

Mobile Technologies



Conclusions

OSI & Mobile

- Play different roles for each party
- Can speed up the inspection process
- Enhance transparency without compromising security
- Offer improvements over current radio communications

Requirements

- Policies & Procedures
- Guidance
- Training
- Controls

What next?

- Widespread use during training
- Acceptance by inspected state parties for host/escort use only
- Designed in to future agreements

Scenarios

Complementary Access

The IAEA has the right to make use of commercially available remote access systems, including satellite phones and mobile phones, to inspect facilities.

CTBT

Mobile phones are used for safety as well as completing missions.

FMCT

An agreement is in place that allows for the use of mobile phones.

Challenge Inspection

During an inspection, photographs are taken of the facility and the images are analyzed. Images are then sent to the inspection team for review.

Digital reports are then generated and sent.

Hurdles to Implementation

| | |
|---|--------------------------------|
| Controlling data flow | Device approval |
| Battery life | "Crippled" devices |
| GPS inside structures | Lost signals Dead zones |
| Synchronization with off-site databases | Intrusiveness |
| • Cell phone • Wi-Fi • Bluetooth | Jamming Spoofing Hacking |



ESARDA

European Safeguards Research and Development Association

35th ESARDA Annual Meeting
Congrescentrum Oud St. Jan
Bruges, Belgium

Information Management I
27-30 May 2013

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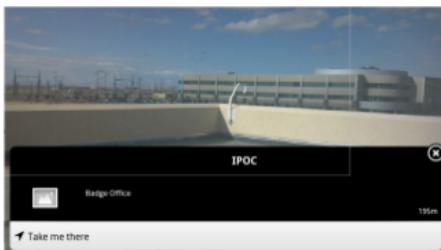
Alternative information

Mobile Technologies

Inspection Team Tracking



Situationally-aware Information Feeds

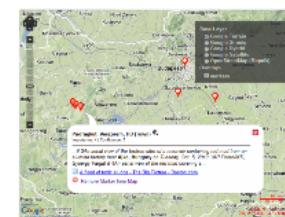


Augmented Reality



Real-time Database Access

GIS Applications



Enhanced Communication Channels

- Text messaging
- Microblogging
- Social media
- Image sharing



Novel Sensor Packages



Inspection Team Tracking



Rea

Augmented Reality



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Team



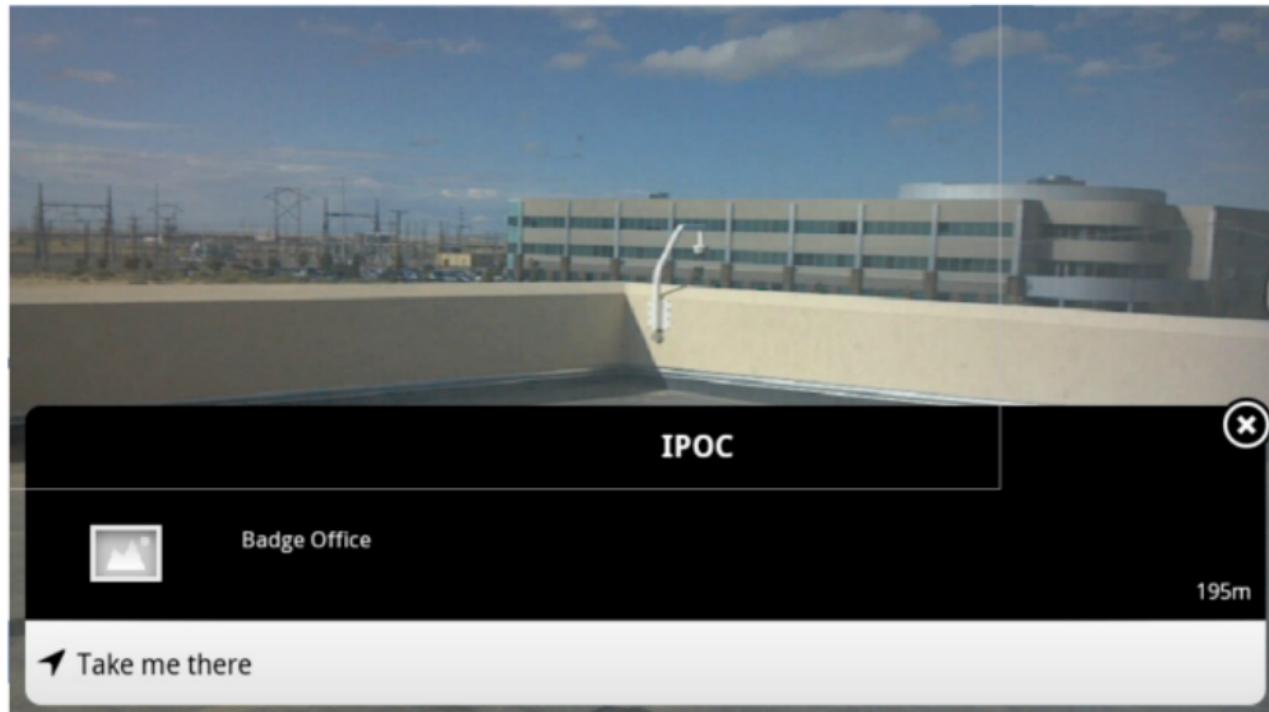
Real-time Database Access

Geographically-aware Information Feeds

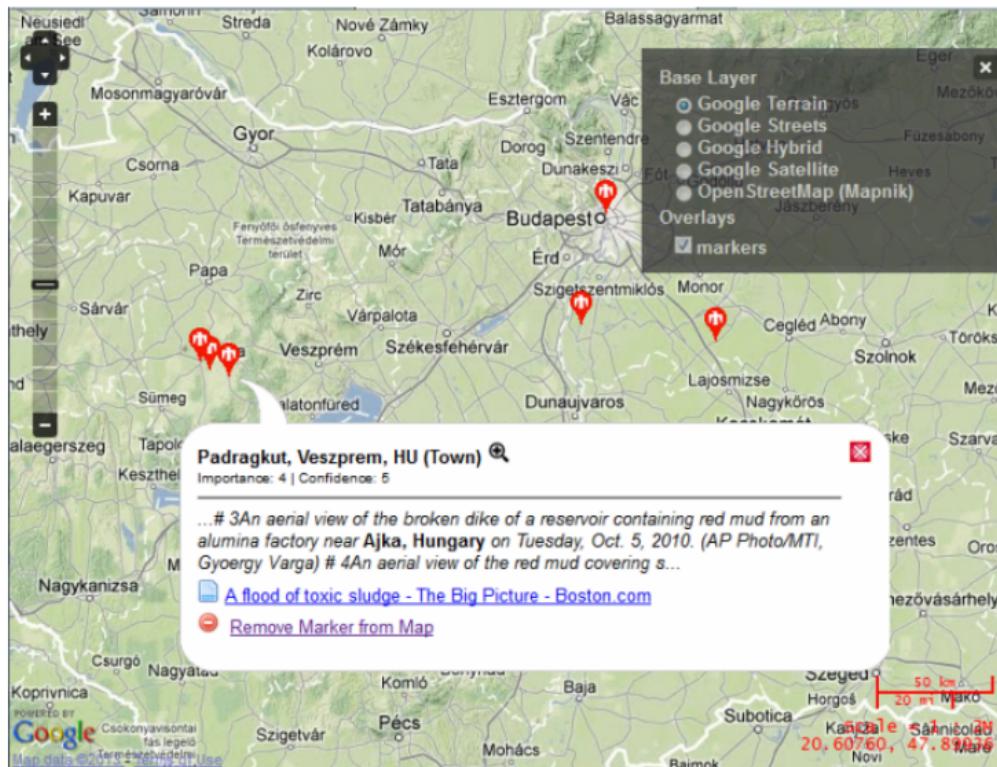
GIS Applications



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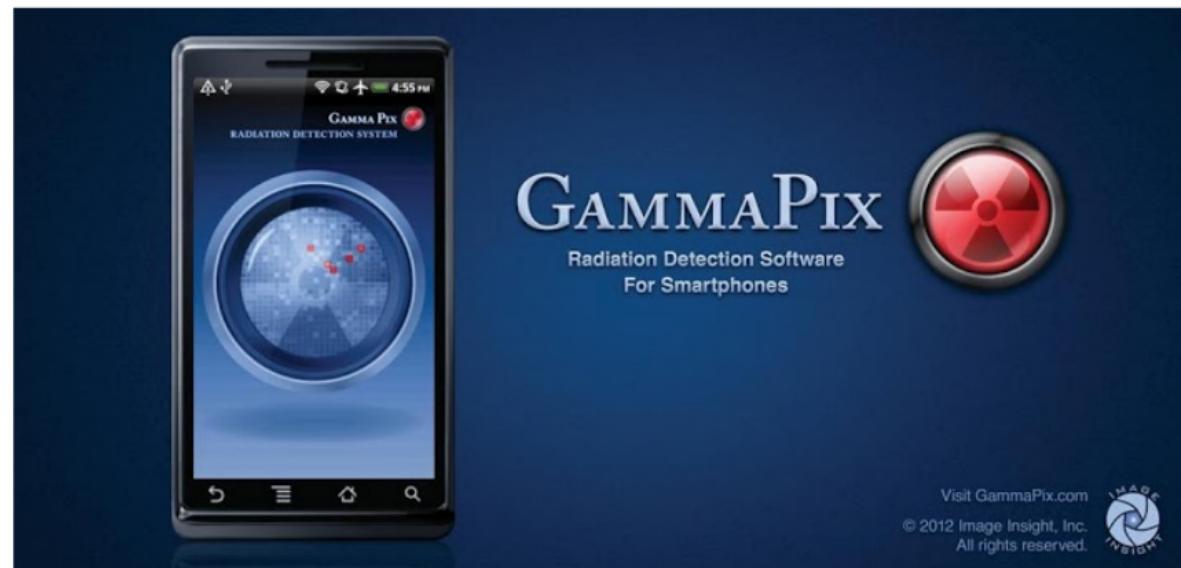


GIS Applications



Nove

Novel Sensor Packages



Hurdles to Implementation

Device approval

Controlling data flow

"Crippled" devices

Battery life

GPS inside structures

Lost signals

Synchronization with
off-site databases

Dead zones

Jamming

Intrusiveness

Spoofing

- Cell phone
- Wi-Fi
- Bluetooth

Hacking

Scenarios

Complementary Access

The IAEA has the right to make use of internationally established communications systems, including satellite systems and other forms of telecommunication.

CTBT

2000 sq km inspectable area

Mobile may be important both for safety as well as accomplishing mandate

FMCT

An opportunity to develop modalities that allow for the use of mobile technologies

Challenge Inspection

Visual inspection enhanced by photographs being referred in real-time to off-site SME for image analysis

Augmented Reality to assist in site navigation and comprehension

Digital input to inspection report done on the spot

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