ICTs in Disaster Response

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Overview

- Role of ICTs in disaster management
- Advantage of satellite networks
- Regulatory considerations: M2M
- Policy Recommendations

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Iridium

A vital, global communications provider of mobile voice and data services via 66 in-orbit satellites

- Serving 900,000 subscribers

- Key Applications: handsets, machine-to-machine (M2M), maritime, aviation, government, emergency & remote voice and asset tracking

- Building Iridium NEXT constellation. Two successful launches of 20 satellites

- New constellation will deliver expanded capacity and higher data speed capabilities
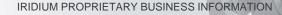
- Global Coverage

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Historical Usage of Iridium for Disaster Recovery

- Taiwan Earthquake (1999)

- September 11 (2001)

- Asian Tsunami (2004)

- Hurricane Season in US and Caribbean (2005)

- Pakistani Earthquake (2005)

- Hurricanes Gustav, Hanna and Ike (2008)

- Tropical Cyclone Aila (2009)

- Zimbabwe Floods (2009)

- Haiti Earthquake (2010)

- Japan Earthquake (2011)

- Hurricane Sandy (2012)

- Nepal Earthquake (2015)

- Ecuador Earthquake (2015)

- Hurricane Harvey, Irma, Maria (2017)

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Role of ICTs in disaster management

- Essential in preparing and preventing for disasters
- Vital in mitigating their impact on communities at risk

ICTs can improve information sharing, resource allocation, communication, and collaboration among emergency services. Specifically, they can help:

- **DETECT** needs earlier and predict crises better
- **ENABLE** greater scale, speed and efficiency of response and assistance delivery
- **ENHANCE** the specificity of resource transfers to match needs of communities at risk
- **INCREASE** accountability and transparency
- **OFFER** new platforms for training or raising awareness

Advantages of Satellite Networks

- Reliability

- Autonomy

- Geographic coverage

- Cost-effective

- Interoperable

Regulations: Facilitate not Inhibit

- Are traditional regulatory frameworks inhibiting disaster response?
- Example: M2M applications
  - ➢ Range of solutions for: environmental monitoring, disaster detection, early warning
  - ➢ Emerging solution for disaster response that doesn't fit traditional regulations
- Regulatory review an essential part of disaster risk reduction

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Recommendations

How to best leverage ICTs in emergency scenarios?

Preparation

- Develop disaster management plans
- pre-position emergency equipment
- Training

Regulation

- Simplified licensing procedures in emergency situations
  - No customs/import restrictions
  - Reduce licence fees
  - Relax local gateway requirements

Collaboration

- Partner with industry
- Encourage collaboration among ICTs

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Thank you