

GEOSPATIAL APPLICATIONS FOR CLIMATE CHANGE AND DISASTER MITIGATION: TOOLS AND METHODS

Prepared by

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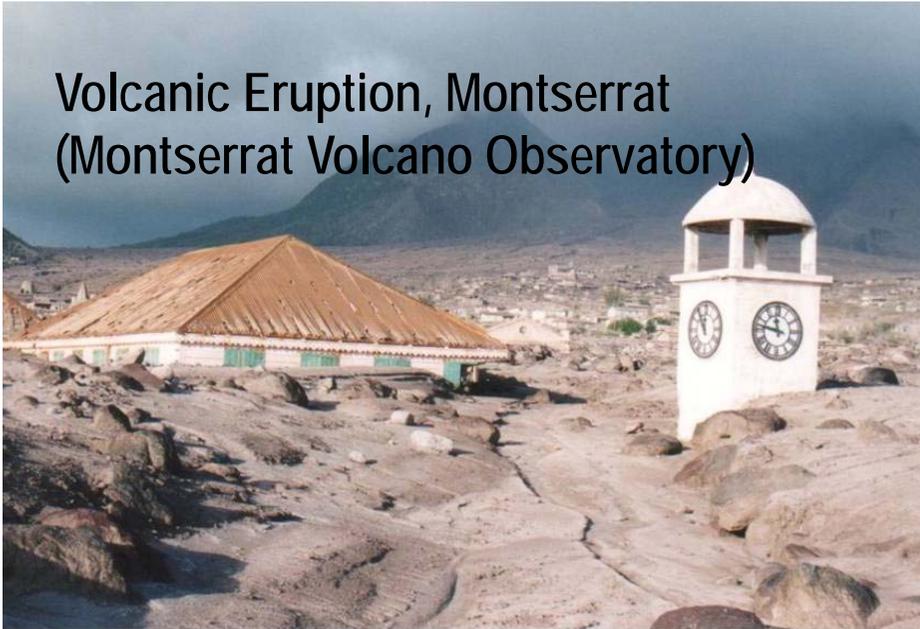
Presented by

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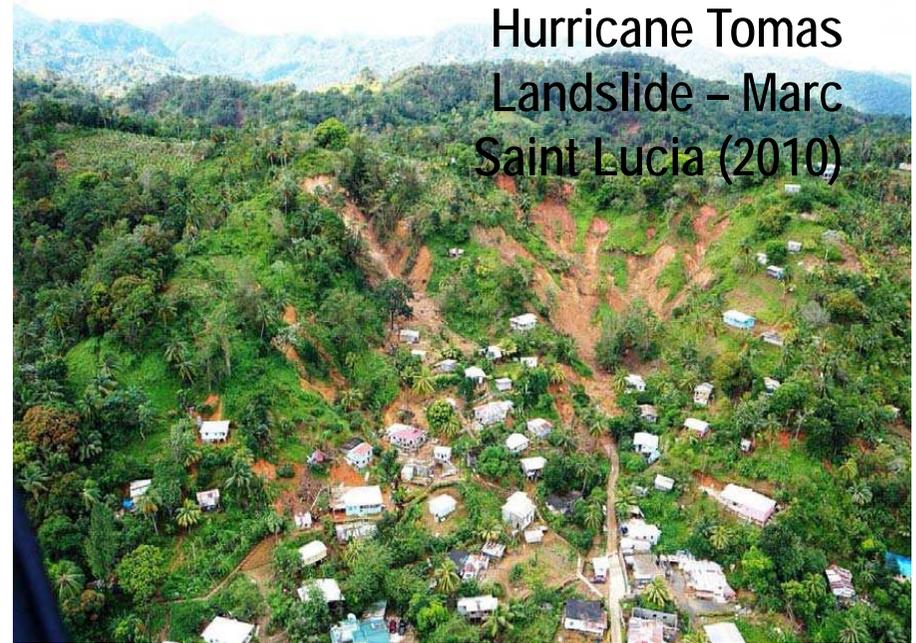


3rd High Level Forum on UNGGIM, Beijing, 23 October 2014

Volcanic Eruption, Montserrat
(Montserrat Volcano Observatory)



Hurricane Tomas
Landslide – Marc
Saint Lucia (2010)



Earthquake
Haiti, 2010



Hurricane Lenny
Gouyave, Grenada

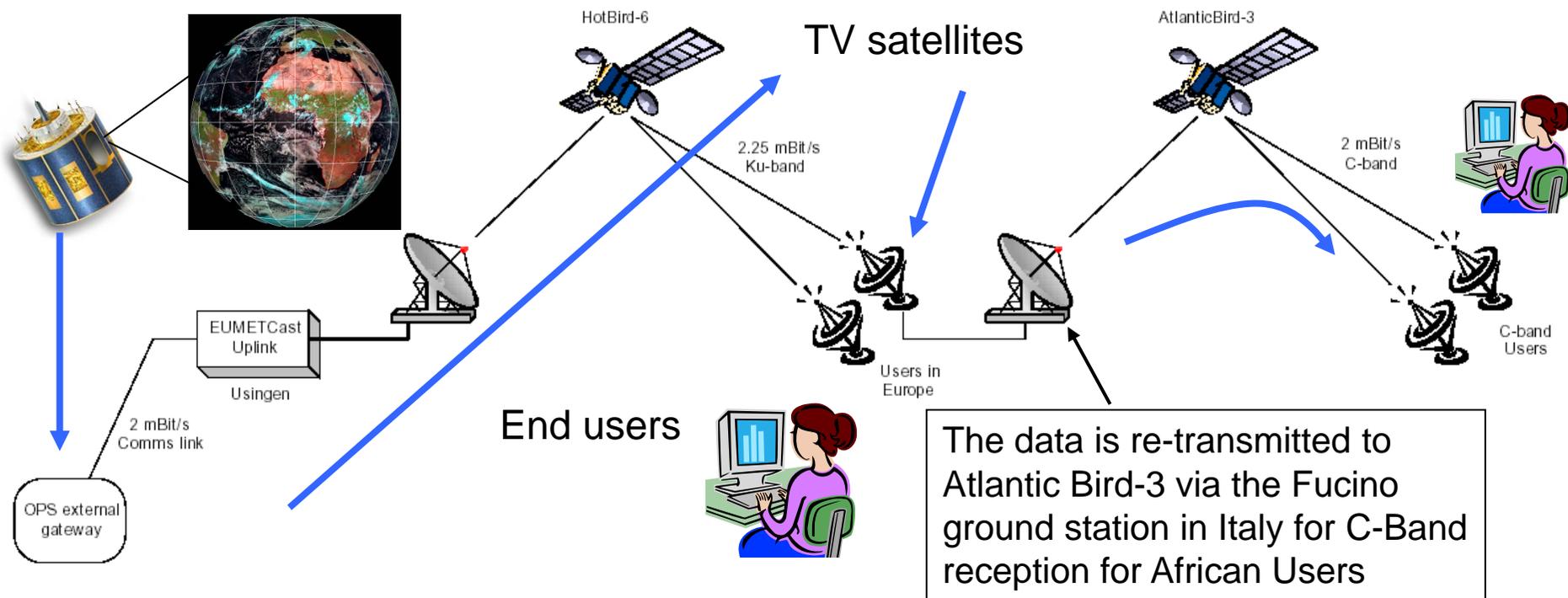


We in the Caribbean do need access to tools and methods for undertake the following

- **Trend analysis**
- **Predictive analysis**
- **Risk modelling**
- **Scenario modelling**
- **Evacuation planning**

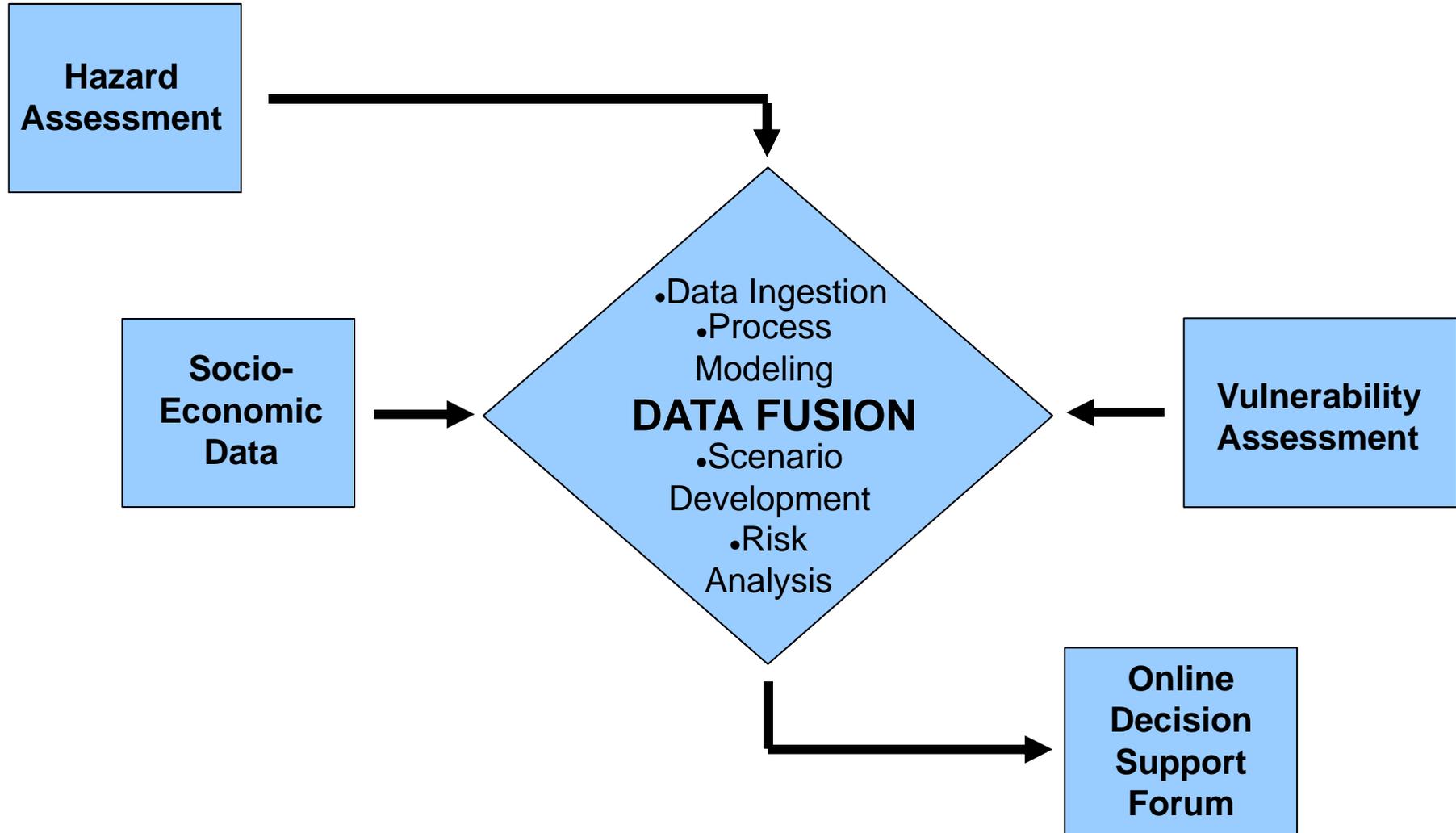
WE NEED REAL-TIME SATELLITE RECEPTION

After central ground processing at EUMETSAT, images in full resolution are transmitted in HRIT mode, within < 2 minutes of observation and then....



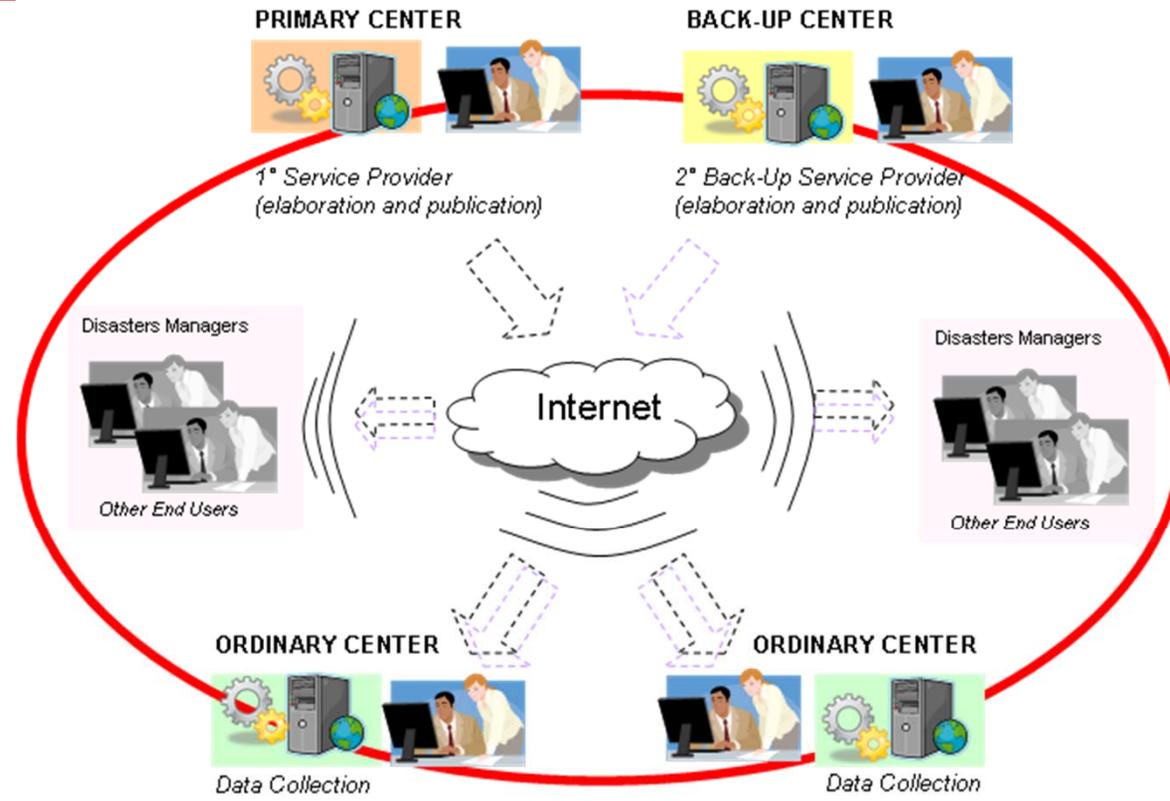
Before the (data) signal is received by an end-user, it has travelled:
from MSG in space -> Darmstadt -> Usingen -> Eurobird-6 -> Fucino -> AtlanticBird-3 -> Local Station (approximate distance is $5 * 36.000$ km!!)

CONCEPTUAL FRAMEWORK FOR (DATA USE IN) EFFECTIVE HAZARD RISK MANAGEMENT (CIMH 2013)



Slide courtesy of CIMH

CARIBBEAN DEWETRA PLATFORM



Legend:

- • Dedicated communication channel
- Primary Center
- Back-Up Center
- Ordinary Centers
- Other End-Users

Slide courtesy of
CIMH

HYDRO-METEOROLOGICAL RISK

The screenshot displays a GIS application interface for managing hydro-meteorological risk data. The interface is divided into several sections:

- Find in Google Maps:** A search bar for finding specific locations.
- Layer List:** A list of layers including Dynamic Layers (Reflectivity Barbados 2), Tool Layers (Impacts Layer, Weather Stations (75 stations), Search Result, Scenario, Measure), and Caribbean regions (GRD, DMA, SVG, BVI, SKN, BRB, SLU, ATG, AIA, MSR).
- Background Layer:** A section for selecting the background map style.
- Operator:** Fields for Name (cimh) and Organization (CIMH).
- Time References:** Fields for Insert Time, Reference Time (23/12/2013 20:00), and Time Range.
- Localization:** Fields for lon (-61.2561) and lat (13.2818), along with Municipality, District, and Region.
- Note Info:** Fields for Category (Landslide), Damages (People and Things Affected), and Criticality Level (High).
- Note Details:** Fields for Source (CDEAM Situation Report 2), Description (Major affected area (Rose Bank). Five (5) persons from one (1) family confirmed dead.), and Action (Emergency shelter activated at Chateaubelair).
- Attachment:** A section for uploading files, currently showing "no file selected".
- Map View:** A satellite map of Barbados with a yellow outline of the island and several red and blue markers indicating risk areas. A legend in the top right corner shows a red triangle for "DE WE TROU".
- Scale Bar:** A scale bar indicating 5 km.
- Google Maps:** The Google logo and "5 km" scale bar are visible at the bottom of the map view.
- ACROTEC:** The ACROTEC logo is visible in the bottom left corner of the interface.
- User:** The user name "cimh" is displayed in the bottom right corner.

Slide courtesy of CIMH

THANKYOU!



Should you have any queries, please contact:
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