The International Working Group on Satellite-based Emergency Mapping (IWG-SEM) proposal

Fabio Giulio-Tonolo, ITHACA, Italy
info@ithacaweb.org
IWG-SEM

- **Voluntary group** of organizations involved in satellite-based emergency mapping.
- Founded in April **2012**
- **Monthly teleconferences** and biannual meetings
- Yearly rotating chairmainship: current chair Peter Zeil from University of Salzburg, Department of Geoinformatics (peter.zeil@sbg.ac.at)

www.iwg-sem.org
IWG-SEM - Vision and Mission

VISION

“Supporting disaster response by improving international cooperation in satellite based emergency mapping”

MISSION

“To establish best practices between operational satellite-based emergency mapping programs to stimulate communication and collaboration to include definition of map product generation guidelines, coordination of expertise and capacities, building of training curriculum, participation in common exercises, and reviewing relevant technical standards and protocols. To work with the appropriate organizations to define professional standards for emergency mapping.”
Emergency Mapping Guidelines

• **On-line Working Paper**
• Define fundamental principles
• **Establish a procedure for interactions and sharing of data, analysis and mapping results**
• Organize mapping products, templates and dissemination policies
• Commit to assurance of capacity and qualification
• Prepare a glossary for emergency mapping vocabulary
Emergency Mapping Guidelines

Chapter 2.4

SHARING OF SATELLITE DATA, ANALYSIS AND MAPPING RESULTS FOR SEM

• 2.4.1 Definitions of SEM Sharing
• 2.4.2 Use and Sharing of Reference Datasets
• 2.4.3 Sharing of Satellite Imagery Data
• 2.4.4 Sharing of Analysis
• 2.4.5 Sharing of Delivered Emergency Mapping Products
• 2.4.6 Use/Licensing/Copyright
GeoRSS Feed to automatically broadcast information about SEM activations.

Horizontal cooperation/sharing tool, allowing to clearly understand where SEM organization are currently active.

- **1st level**: at SEM activation level
- **2nd level**: at Area of Interest level

Minimum set of **standard metadata** *(technical specifications)*
Operational tools/standards

Esample of GeoRSS Feed – Activation level

Aggregator of Emergency Mapping GeoRSS Feeds

Aggregator of Emergency Mapping GeoRSS Feeds

<table>
<thead>
<tr>
<th>Source</th>
<th>Date of publication - from:</th>
<th>Title contains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Copernicus EMS - Rapid Mapping Activations</td>
<td>2015-09-13</td>
<td></td>
</tr>
<tr>
<td>Copernicus EMS - Risk and Recovery Mapping Activations</td>
<td>2016-09-14</td>
<td></td>
</tr>
<tr>
<td>DLR - ZKI</td>
<td>Activations GeoRSS Feed</td>
<td></td>
</tr>
<tr>
<td>Inf. Chart on Space and Major Disasters</td>
<td>2016-09-14</td>
<td></td>
</tr>
<tr>
<td>SEPTT Activations</td>
<td>2016-09-14</td>
<td></td>
</tr>
</tbody>
</table>

Con/Ind + mouse = multiple sources. Unselect all to reset filter.

Location - proximity

Enter (partial) address for geocoding.
Operational tools/standards

Example of GeoRSS Feed – Activation level

**Aggregator** of Emergency Mapping GeoRSS Feeds

---

**Flood in India**

Date of publication: 2016-08-26  
Source: Int. Charter on Space and Major Disasters  
Heavy monsoon rain has triggered floods across India with around 300 people feared to be dead and up to 6 million people affected by flood waters.

Eastern and central India, in particular the states of Bihar Uttar Pradesh, Rajasthan, Madhya Pradesh and Gujarat were among worst affected areas.
Operational tools/standards

Example of GeoRSS Feed – AOI Level

Example: Floods in Louisiana

Copernicus Emergency Management Service (© 2016 European Union), EMSR143

GeoRSS URL
http://emergency.copernicus.eu/mapping/list-of-components/EMSR176/feed
The International Working Group on Satellite-based Emergency Mapping (IWG-SEM) proposal

Fabio Giulio-Tonolo, ITHACA, Italy
info@ithacaweb.org