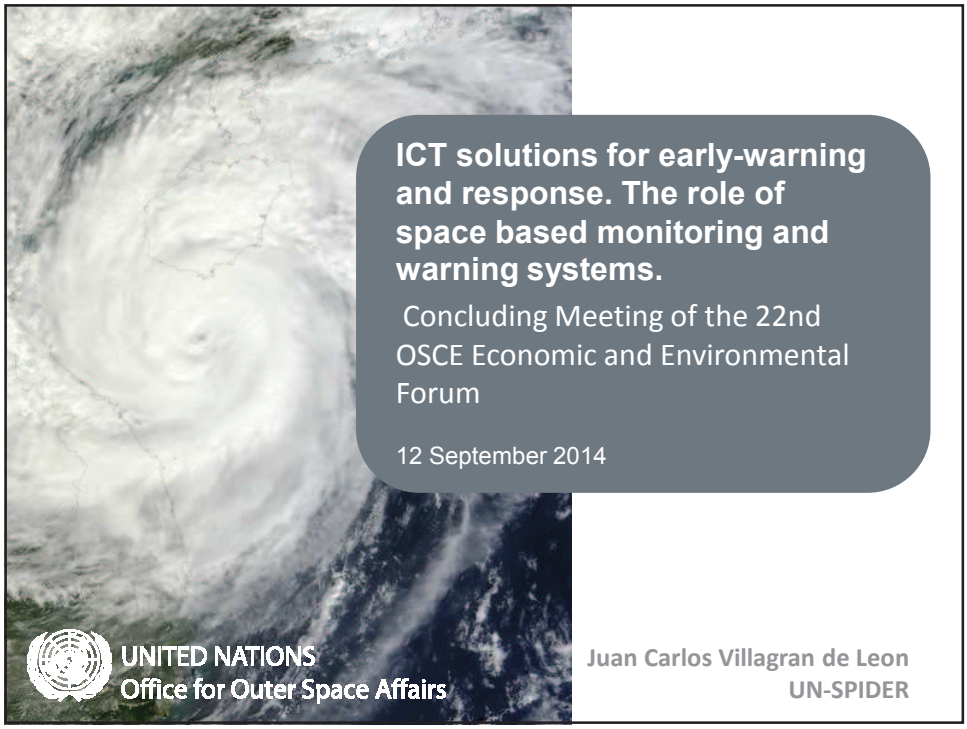
EEF.IO/17/14
11 September 2014

ENGLISH only



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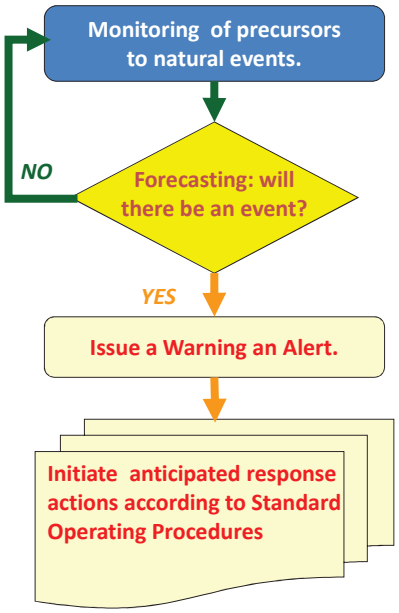

The role of ICTs in early warning

ICTs contribute to facilitate the exchange of data and information in all phases of the EWS, and to disseminate warnings to all of those who can be affected.

Nevertheless, traditional mass media communications are used by people to become aware of potentially catastrophic events.

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The role of ICTs and Geospatial technologies in early warning and disaster response efforts

ICTs facilitate access to, the dissemination of, and the generation of *geospatial information*.

The use of *tablets and Smart phones,* in combination with *geo-viewers and accompanying software,* facilitates the coordination of response efforts on site and off site simultaneously.

Social media could be considered when disseminating warnings. However, warnings must be issued by recognized and relevant authorities.

Crowd-source efforts can contribute to a rapid collection of data on damages and losses and to elaborate corresponding maps.

Geoviewers are facilitating the geospatial awareness of risks

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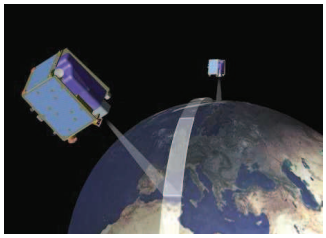
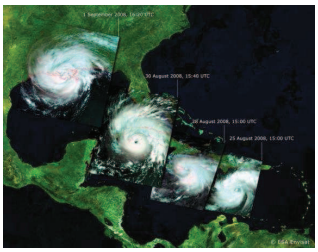
The role of Space-based applications in early warning





Satellite imagery contribute to forecast potentially catastrophic events.

Satellite imagery offer the most up-to-date view on the exposure of vulnerable elements and assets.

The combination of archived and up-to-date imagery can be used to assess changes in exposure.

The combined use of local data and satellite imagery improves the definition of evacuation routes.

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The role of Space-based applications in disaster response

Satellite imagery are used to delineate the geographic area affected. They can be used to assess the number of hectares or square kilometres affected and other relevant impacts.

Satellite imagery can be used to identify which roads may still be used to deliver humanitarian assistance.

Satellites can be used to assess impacts even under cloudy conditions.

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The role of Space-based applications in disaster response

At the European level, COPERNICUS has established its *Emergency Mapping Service* that provides maps of affected areas at the request of civil protection authorities.

At the global level a similar service is provided by the *International Charter – Space and Major Disasters*.

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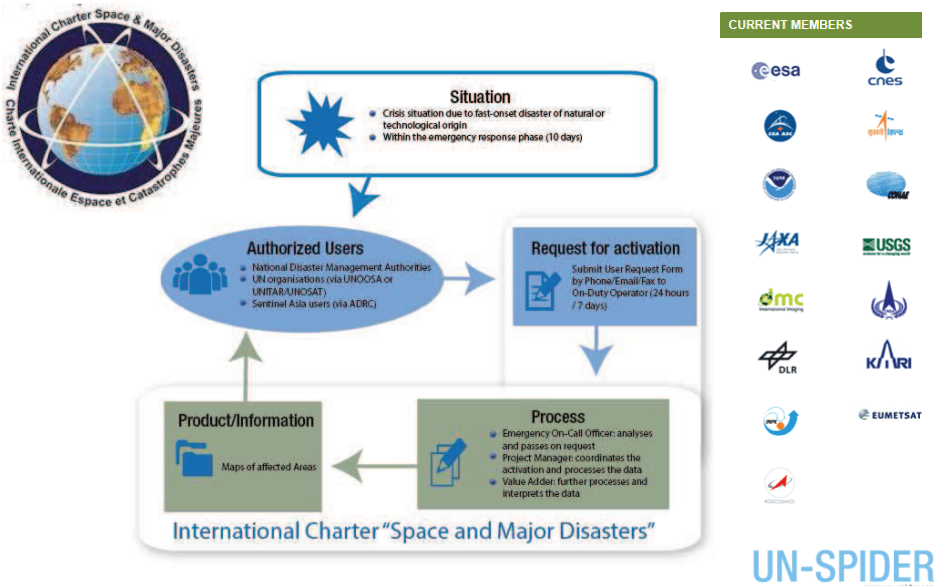

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Main recommendations

- Civil protection agencies should take advantage of the opportunities that the Space community is providing in terms of access to satellite imagery and software to process it.
- Emergency Operation Centres should assess how best to make use of mechanisms such as *COPERNICUS-EMS* and the *Charter*.
- The use of geoviewers and geographic information systems should be enhanced in early warning, response and recovery.
- The usefulness of *Crowd-source* efforts and *Social Media* should be assessed in controlled situations such as simulations and exercises.
- Devices such as Smart phones and tablets should be used routinely in damage and needs assessments and to contribute to coordinate response efforts in case of disasters.

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Thank you for your kind attention.

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Juan Carlos Villagran de Leon,
UN-SPIDER
Juan-carlos.villagran@unoosa.org