

# JAPAN 2011 Fukushima Nuclear Plant Change detection Map

March 17th, 2011  
Scale 1:10.000

### Location Diagrams



### Legend

- |                          |   |
|--------------------------|---|
| <b>Transport network</b> | <b>Multi Temporal Coherence</b>           |
| — Primary road           | ■ SAR detected amplitude- 16th March 2011 |
| — Secondary road         | ■ SAR detected amplitude- 17th March 2011 |
| — Railway                | ■ Interferometric coherence               |
| <b>Infrastructures</b>   |   |
| ■ Railway Station        |   |

### Interpretation

The Fukushima I Nuclear Power plant suffered major damage from the 9.0 earthquake and subsequent tsunami that hit Japan on March 11th, 2011, disabling the reactor cooling systems and triggering a widespread evacuation surrounding the plant.

This map illustrates MultiTemporal Coherence (MTC) map product generated by using two COSMO-SkyMed Spotlight images acquired on March 16th and March 17th (8:22 UTC), supporting the change detection analysis.

MTC product is false colour composite image realized through linear combination of the SAR detected amplitudes and the interferometric coherence of two SAR images acquired with the same geometric characteristics (interferometric mode). I.e. same orbit pass, look direction, incidence angle, polarization, acquisition mode).

The product provides information about areas where changes happened in the time interval between the two acquisitions.

### Cartographic Information

0 125 250 500 Meters

Local projection: UTM WGS84 54N, Datum: WGS84  
Geographic projection: Lat/Lon (DMS), Datum: WGS 84

Scale: 1:10.000 for A1 prints

### Data Sources

Image data  
© ASI COSMO-SkyMed images

Vector data  
© e-GEOS S.p.A - Image analysis  
© Open Street Map  
© Geonames

### Framework

The products elaborated for this Rapid Mapping Activity are realised to the best of our ability, with in a very short time frame, during a crisis/exercise, optimising the material available. All geographic information has limitations due to the scale, resolution, date and interpretation of the original source materials. No liability concerning the content or the use thereof is assumed by the producer.

Map produced the 17 03 2011 by e-GEOS S.p.A.  
© e-GEOS 2011

emergency@e-geos.it  
http://www.e-geos.it



37°25'0"N

37°25'0"N

© e-GEOS S.p.A. 2011

