

# OCC Project Matsu : An open source project for cloud-based processing of satellite imagery to support the earth sciences

[matsu.opensciencedatacloud.org](http://matsu.opensciencedatacloud.org)

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## Matsu

Project Matsu is a collaboration between NASA and the Open Cloud Consortium that processes the data from NASA's EO-1 satellite to develop open source technology for cloud-based processing of satellite imagery to support the earth sciences. Technology developed by the collaboration include:

- The Nambia Flood Dashboard.
- MapReduced based analytics for identifying floods and CO2 concentrations.
- Using elastic infrastructure-as-a-service to create Level 1 images each day.
- A Hadoop-based OGC-compliant tiling service and Web MapService.

## Matsu Support Tools

- The code can be found at the OCC Github site.
- Description of Matsu Tile and WMS Services.
- Sample CO2 Detection Query
- Sample Flood Detection Query



EO-1 Satellite

## Matsu and OCC

Project Matsu also provides a test bed for the Open Cloud Consortium to develop and test standards-based platforms for the cloud-based processing of large collections of geo-spatial images.

## Getting Involved

If you are interested, in volunteering to help develop services to assist with detection of fires and floods and infrastructure to provide this information to disaster relief workers, please contact us at [info@opencloudconsortium.org](mailto:info@opencloudconsortium.org)



Figure 1. A visual representation of all of the available Matsu images can be found at [matsu.opensciencedatacloud.org](http://matsu.opensciencedatacloud.org).

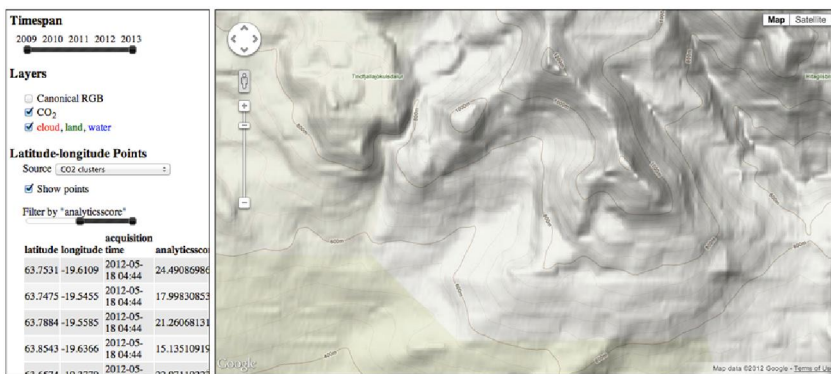


Figure 2. An example of an image from the Web Map Service (CO2 Detection).



Figure 3. An example of an image from the Web Map Service (Flood Detection).