

# CEOS contribution to the GEO Geohazard Supersite and Natural Laboratories Initiative

## Data access and license conditions

### *Ecuadorian Volcanoes Permanent Supersite*

December 8, 2014

#### 1. Purpose and Scope

This document explains how scientists working on the Ecuadorian Volcanoes Permanent Supersite can obtain access to the data provided by CEOS under the GEO Geohazard and Natural Laboratories Initiative (GSNL) and details any specific license requirements.

#### 2. Background

The overarching objective of the GSNL is *“to enrich our knowledge about geohazards by empowering the global scientific community through collaboration of space and in-situ data providers and cross-domain sharing of data and knowledge”*.

CEOS Plenary, in November 2012 adopted a selection procedure for Supersites, available at [http://www.earthobservations.org/documents/gsnl/20120918\\_GSNL\\_CEOSSelectionProcess.pdf](http://www.earthobservations.org/documents/gsnl/20120918_GSNL_CEOSSelectionProcess.pdf)

In November 2014 the CEOS Plenary agreed to support the proposed Permanent Supersite “Ecuadorian Volcanoes” based on the proposal made available.

#### 3. Common provisions for all agencies

##### Access conditions and conditions of use

1. CEOS makes data resources available specifically to support the objective of the GSNL. Data made available by CEOS as contributions to the GSNL shall be used exclusively in this context.
2. Publications of scientific findings based on the uses of CEOS data made available under the GSNL shall acknowledge the use of these data and reference the GSNL.

##### Reporting

CEOS will regularly review the Ecuadorian Volcanoes Supersite for progress and continued relevance to the objectives of the GSNL. To this end, the Principal Investigator for the Supersite is requested

- 1) to inform CEOS about new publications based on data made available to the GSNL and
- 2) to provide at the end of 2016, a report including the main outcomes and results achieved thanks to the the supersite initiative.

This should generally be by email to the Chair of Data Coordination Team of the CEOS Working Group on Disasters (currently [bkjones@usgs.gov](mailto:bkjones@usgs.gov)).

## 4. Individual provisions contributing agencies

### 4.1. ASI

#### Procedures for data ordering and access

The PI shall identify data needs (archive and/or new tasking) within the assigned quota and submit them to ASI (through the point-of-contact identified below) for feasibility.

COSMO-SkyMed products will be provided by ASI via ftp.

The COSMO-SkyMed catalogue is available at <http://87.241.31.78/index.php>.

#### Specific conditions for access and use of ASI data

COSMO-SkyMed system is owned by ASI and the Italian Ministry of Defense and operated by ASI.

COSMO-SkyMed data provided under the GSNL initiative will be intended only for scientific use and shall be used only for scientific research in the context of GSNL.

Applicable regulations are provided in the “COSMO-SkyMed License to Use”. The license must be signed by the PI and by all CO-PI’s.

#### Specific reporting requirements

Every year, the PI is expected to provide to the ASI Point of Contact a report including the main outcomes and results of the project.

#### ASI Point-of-contact

The ASI Point-of contact for the PI is Simona Zoffoli ([simona.zoffoli@asi.it](mailto:simona.zoffoli@asi.it)).

### 4.2. CNES

#### Procedures for data ordering and access

The PI should submit a data request to CNES’s ISIS programme – [www.isis-cnes.fr](http://www.isis-cnes.fr).

#### Specific conditions for access and use of CNES data

Data must be used under the conditions described in the ISIS licence and is strictly limited to project partners that are named in the project submitted to ISIS.

#### Specific reporting requirements

Progress reports and scientific publications must be submitted on the ISIS website.

#### CNES Point-of-contact

CNES contact point is [steven.hosford@cnes.fr](mailto:steven.hosford@cnes.fr)

### 4.3. CSA

#### Procedures for data ordering and access

A document called ‘CSA Data Access’ will be provided separately. In brief, it states that the Principal Investigator (PI) is responsible for data ordering and access. RADARSAT-2 data requests need to be provided in “.ACP” format generated with the “Acquisition Planning Tool” application. A document called ‘NEODF FTP account policy’ will also be provided for further details. Access to the application as well as the NEODF (image library) account information will be provided once CSA has received both agreements signed.

#### Specific conditions for access and use of CSA data

A document called ‘RADARSAT-2 SOAR-Geohazard Loan Agreement’ will be provided. It explains that projects requesting RADARSAT-2 products are subject to all regulations relating to the Government of Canada Data Policy, the Remote Sensing Space Systems Act and the Remote Sensing Space Systems Regulations. Also, it states that the RADARSAT-2 products

must remain at any time under the control of the PI's organization. It finally refers to the RADARSAT-2 Single End User License Agreement, see <http://gs.mdacorporation.com/SatelliteData/Radarsat2/Radarsat2.aspx>.

#### Specific reporting requirements

These are included in the abovementioned 'RADARSAT-2 SOAR-Geohazard Loan Agreement' and in the CSA Data Access document. In brief, the PI shall submit a progress report describing the status of the projects every year. Reports can be scientific publications and shall be submitted to the SOAR Office by e-mail at [SOAR-Geohazard@asc-csa.gc.ca](mailto:SOAR-Geohazard@asc-csa.gc.ca). Papers produced by the PI and published in open scientific literature shall acknowledge the Canadian Space Agency, MacDonald, Dettwiler & Associates Ltd. and the SOAR program with appropriate Copyright and Trademark notice. Please refer to the End User License Agreement, provided with RADARSAT-2 products, for details.

#### CSA Point-of-contact

Christine Giguère, [Christine.Giguere@asc-csa.gc.ca](mailto:Christine.Giguere@asc-csa.gc.ca)

### **4.4. DLR**

#### Procedures for data ordering and access

The PI will receive, shortly, access to a dedicated user account through which detailed orders can be placed within the limits of the agreed region, mode, and quota. The products will be delivered to a dedicated server.

DLR will provide a self-registration service for Supersite scientists interested in gaining access to the data made available for the Ecuadorian VolcanoesSupersite. Registrations will be confirmed by DLR before users can access the data. Access to the catalogue service (CSW) will be free-and-open.

#### Specific conditions for access and use of DLR data

The PI will be requested to sign a user licence agreement, available at <http://terrasar-x.dlr.de/>.

#### Specific reporting requirements

- DLR expects results of the use of data contributed to be published in the scientific literature and presented regularly at scientific conferences.
- DLR also expects the Ecuadorian VolcanoesSupersite to develop a collaborative platform and website highlighting the developments and exploitation of data made available.
- DLR invites scientists of the GSNL to present at DLR TerraSAR-X Science Team meetings.

#### DLR Point-of-contact

Achim Roth, [tsx.science@dlr.de](mailto:tsx.science@dlr.de)

### **4.5. ESA**

#### **A- ERS and ENVISAT**

#### Procedures for data ordering and access

ESA has already made 1644 ERS / Envisat SAR scenes (as of 28/11/2013) via the ESA Virtual Archive<sup>1</sup> available. Access is being granted following the standard data access procedure.

<sup>1</sup> <http://eo-virtual-archive4.esa.int>

In order to support ordering of the missing archived scenes, the standard ESA EO procedure needs to apply. Issuing the CEOS proposal for the Ecuadorian Volcanoes Supersite via the ESA Web portal<sup>2</sup> is sufficient to get within a few days an ordering account.

Specific conditions for access and use of ESA data  
Standard Terms and Conditions (T&C)<sup>3</sup> apply.

Specific reporting requirements  
Standard Cat-1 reporting requirements as stated in the T&C<sup>4</sup> apply.

However in order for ESA to promote the Ecuadorian Volcanoes Supersite activities, it would be appreciated to receive at least once a year a report outlining the progress of the overall project and coordination activity to which ESA data are contributing to.

ESA Point-of-contact  
Wolfgang Lengert, [wolfgang.lengert@esa.int](mailto:wolfgang.lengert@esa.int)

## **B - Sentinel-1**

Procedures for data ordering and access  
No specific ordering can be formulated with Sentinel-1. The Sentinel-1 observation plan already includes the systematic acquisition of all supersites, as well as major tectonic areas at global level. Ecuadorian is covered. Operationally qualified product will be available from early 2015. Preliminary qualified products are available since 3<sup>rd</sup> October 2014. Sentinel-1 data can be retrieved from <https://scihub.esa.int/>

Specific conditions for access and use of ESA data  
The Terms and Conditions for the Use and Distribution of Sentinel Data are available at: [https://sentinel.esa.int/documents/247904/690755/TC\\_Sentinel\\_Data\\_31072014.pdf](https://sentinel.esa.int/documents/247904/690755/TC_Sentinel_Data_31072014.pdf)

Specific reporting requirements  
No reporting requirements are mandatory as far as use of Sentinel data is concerned. ESA however expect a yearly report on the use of Sentinel-1 data in the Supersite framework. ESA also expect related publications from the scientific community and presentation at ESA relevant workshops like FRINGE.

ESA Point-of-contact  
Wolfgang Lengert, [wolfgang.lengert@esa.int](mailto:wolfgang.lengert@esa.int)

## **4.6. EUMETSAT**

Procedures for data ordering and access  
Near real-time Meteosat data from EUMETSAT are routinely dissemination on EUMETCast. A PI with access to a EUMETCast reception station can receive these data according to the subscription profile which they maintain through the self-registration Earth Observation Portal (EOP). Licensing arrangements, if required, are established at the time of registration.

<sup>2</sup> <https://earth.esa.int/web/guest/pi-community/apply-for-data/full-proposal>

<sup>3</sup> <https://earth.esa.int/pi/esa?type=file&table=aotarget&cmd=image&id=122>

<sup>4</sup> <https://earth.esa.int/pi/esa?type=file&table=aotarget&cmd=image&id=122>

Historical or archived Meteosat data are available through the EUMETSAT Data Centre. Once a PI has established an EOP registration account he proceeds to the Data Centre online ordering tool to select the requested data and delivery mechanism (e.g. http download or via offline media).

#### Specific conditions for access and use of EUMETSAT data

The EUMETSAT Data Policy is a document which has been established and approved by EUMETSAT Member States. In brief, should access to archived data<sup>5</sup> be required, these data are available to the PI without charge or restriction; should access to licensed near real-time Meteosat data<sup>6</sup> be required, data access is granted upon the acceptance of licencing terms and conditions in accordance with the standard provisions of the EUMETSAT Data Policy. Access to near real-time data used for research purposes is granted without charge.

The official EUMETSAT Data Policy as approved by EUMETSAT Member States is available from the EUMETSAT website: [www.eumetsat.int](http://www.eumetsat.int).

#### Specific reporting requirements

Where applicable, standard reporting requirements as stated in the terms and conditions of the licence apply.

#### EUMETSAT Point-of-contact

User Helpdesk, [ops@eumetsat.int](mailto:ops@eumetsat.int)

### **4.7. JAXA**

Details on JAXA data access will be made available at a later time.

### **4.8. NASA – EO1**

#### Procedures for data ordering and access

New images from EO-1 are available upon request at no cost.

#### Specific conditions for access and use of NASA data

None: Free-and-open data policy.

#### Specific reporting requirements

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- When using information from USGS information products, publications, or Web sites, we ask that proper credit be given. Credit can be provided by including a citation such as the following:
- Credit: U.S. Geological Survey Department of the Interior/USGS U.S. Geological Survey/photo by Jane Doe (if the photographer/artist is known)

#### NASA Point-of-contact

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<sup>5</sup> Data older than 24-hours

<sup>6</sup> 15-minute, half-hourly and hourly Meteosat SEVIRI level 1.5 data.

Stuart Frye, NASA, stuart.frye@nasa.gov

#### 4.9. NASA – ASTER

See [https://lpdaac.usgs.gov/products/aster\\_policies](https://lpdaac.usgs.gov/products/aster_policies)

##### Procedures for data ordering and access

Access and redistribution of ASTER data available from the LP DAAC is subject to contractual agreements between NASA and the Japanese owners of the ASTER sensor.

**Search, Browse, and Order access** is available for the following ASTER Products from LP DAAC free of charge:

Product	Coverage
<a href="#"><u>North American ASTER Land Surface Emissivity Database (NAALSED)</u></a>	Global
<a href="#"><u>ASTER Global Digital Elevation Model V002 (GDEM)</u></a>	Global
<a href="#"><u>ASTER L1B: Registered Radiance at the Sensor V003</u></a>	US and Territories
<a href="#"><u>ASTER Routine Reconstructed Unprocessed Instrument Data - Expedited (AST_L1AE)</u></a>	Global
<a href="#"><u>ASTER Routine Registered Radiance at the Sensor - Expedited (AST_L1BE)</u></a>	Global

**Search and Browse access** is available for the following ASTER Product from LP DAAC:

Product	Coverage
<a href="#"><u>ASTER L1A Routine Reconstructed Unprocessed Instrument Data V003 (AST_L1A)</u></a>	Global

##### Specific conditions for access and use of NASA data

**NASA Approved access** to ASTER L1A and all other higher level ASTER products is available for educational use, NASA-supported research, and U.S. Federal partners via an application process. Additional information is available on the application form link below.

To Apply:

1. Create an [URS](#) account if you do not already have one.
2. Submit the [application form](#) for access to ASTER ordering privileges.

**Alternate Search, Browse, and Order (at a charge) access** is available for all ASTER products except NAALSED from:

Japan Space Systems Earth Remote Sensing Division WWW IMS interface: <http://ims.aster.ersdac.jspacesystems.or.jp/ims/html/MainMenu/MainMenu.html>

##### Specific reporting requirements

- Distribution of LP DAAC data sets is funded by NASA's Earth Science Data Systems program. These data are not copyrighted; however, in the event that you publish NASA data or results derived by using LP DAAC data products, we request that you include an acknowledgment and citation. Users agree to include a citation when presenting or publishing the ASTER Global DEM data product stating that ASTER GDEM is a product of METI and NASA. If possible, please e-mail or send us reprints/citations of papers or oral presentations based on data obtained from the LP DAAC (see below for mailing address and e-mail address). This will help us to stay informed of how the data are being used.



- **Acknowledgement:** Is a general statement crediting NASA LP DAAC for data, assistance, and/or review. This statement is included in a paragraph at the end of an article, before the reference list.
- **Reference citation:** The reference notation of: author (or NASA Land Processes Distributed Active Archive Center (LP DAAC) as producer), product title, publisher (LP DAAC), and release date of the data product which is being credited.
- **Citation on a website:** A suggested format is as follows: "Information [and images] on [SUBJECT] obtained from site [https://lpdaac.usgs.gov/data\\_access](https://lpdaac.usgs.gov/data_access) maintained by the NASA Land Processes Distributed Active Archive Center (LP DAAC), USGS/Earth Resources Observation and Science (EROS) Center, Sioux Falls, South Dakota. (Year). Source of image data product."
- **Citing ASTER Global DEM data** Users agree to include a citation when presenting or publishing the ASTER Global DEM data product stating that ASTER GDEM is a product of METI and NASA.

#### NASA Point-of-contact

LP DAAC

Voice: 605-594-6116 Toll Free: 866-573-3222 (866-LPE-DAAC) Fax: 605-594-6963 E-mail:

LPDAAC@usgs.gov Web: <https://lpdaac.usgs.gov/>

Help desk at EROS [https://lta.cr.usgs.gov/ee\\_help\\_customerservicesinfo](https://lta.cr.usgs.gov/ee_help_customerservicesinfo)

Dr. Ken Duda ([duda@usgs.gov](mailto:duda@usgs.gov))

#### **4.10. NOAA**

Details on NOAA data access will be made available at a later time.

#### **4.11. USGS**

##### Procedures for data ordering and access

Images from Landsats 1 through 5, 7, and 8 are available from the USGS at <http://earthexplorer.usgs.gov>. RSS feeds and standing request services are available for new Landsat 7 and 8 image notifications.

##### Specific conditions for access and use of USGS data

There are no restrictions on Landsat data downloaded from USGS EROS; the data can be used or redistributed as desired. However, a statement of the data source when citing, copying, or reprinting USGS Landsat data or images is recommended. When Landsat images, or portions thereof, obtained from the USGS are published or electronically posted, the following attribution is to be used in a caption: "USGS/NASA Landsat Program".

##### Specific reporting requirements

Annual reports outlining the progress of the project would be welcomed.

##### USGS Point-of-contact

Thomas Cecere, [tcecere@usgs.gov](mailto:tcecere@usgs.gov)

Brenda Jones, [bkjones@usgs.gov](mailto:bkjones@usgs.gov)