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CEOS contribution to the GEO Geohazard Supersite and Natural Laboratories and CEOS Working Group on Disasters Pilots Initiatives

Data access and license conditions

# Purpose and Scope

This document explains how scientists can obtain access to the data provided by CEOS under the GEO Geohazard and Natural Laboratories Initiative (GSNL) and for the CEOS Working Group on Disasters (WGDisasters) pilots and details any specific license requirements.

# 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>

The CEOS Working Group on Disasters was endorsed by the CEOS Plenary in October 2012.

The main objectives for CEOS support to Disaster Risk Management (DRM) are threefold:

* To protect lives and safeguard property;
* To foster increased use of Earth observation (EO) in support of DRM, particularly Disaster Risk Reduction;
* To raise the awareness of politicians, decision-makers and major stakeholders of the benefits of using satellite EO in all phases of DRM.

# 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 and DRM pilots. Data made available by CEOS as contributions to the GSNL and DRM pilots shall be used exclusively in this context.
2. Publications of scientific findings based on the uses of CEOS data made available under the GSNL and DRM pilots shall acknowledge the use of these data and reference the GSNL/DRM pilots.

Reporting

CEOS will regularly review the Supersites and DRM pilots for progress and continued relevance to the stated objectives.

Reporting for the Supersite initiative consists of:

1. An annual synthetic report, consisting in a web form to be compiled online on the GSNL website. This report will be requested to all scientists who have received data for each Supersite, 12 months after the formal approval of the Supersite by CEOS. It will be solicited by the GEO Secretariat using the Supersite mailing list. The scientists will be requested to answer few quick questions on an online form. The filled form will be automatically sent to the SAC and DCT lead. This annual report will cover for the annual report which most agencies request in their License agreement.
2. A biannual detailed report. This report will be prepared by the Supersite Point of Contact with the help of all other scientists using Supersite data, 24 months after the formal approval of the Supersite by CEOS. It will be solicited by the GEO Secretariat using the Supersite mailing list. The biennial report will be sent to all the SAC and DCT members.

Reporting for the CEOS pilots:

1. To inform CEOS about new publications based on data made available to the GSNL/DRM pilots and
2. To provide bi-annual reports due in February and September of every year, a report including the main outcomes and results achieved thanks to the DRM pilot inititiative.

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

# Individual provisions of contributing agencies

# ASI

Procedures for data ordering and access

PI (the Supersite PoC or DRM pilot PI) is responsible for COSMO-SkyMed data ordering within the limits of the agreed region, mode and quota.

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

COSMO-SkyMed data requests (new tasking and archive) have to be submitted to the ASI point of contact identified below.

COSMO-SkyMed data can be downloaded by the PI via ftp.

Account credentials to access ftp server will be provided by ASI directly to the PI.

Specific conditions for access and use of ASI data

The provision of COSMO-SkyMed data is regulated by the COSMO-SkyMed License to use.

The License has to be signed by the PI and by all scientists of the PI organization (user) and out of the PI organization (affiliated user) with whom the data are shared.

Further scientists may be added to the License by sending request to the PI and ASI.

Specific reporting requirements

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

Progress report produced by the PI shall include contribution by all Co-Pi’s.Papers shall acknowledge the Italian Space Agency and the GSNL or CEOS DRM initaitve.

ASI Point-of-contact

Simona Zoffoli (simona.zoffoli@asi.it).

# CNES

Procedures for data ordering and access

The PI should submit a data request to CNES’s ISIS programme – 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

# 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-2data 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.  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

# 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 and can be accessed at <https://supersites.eoc.dlr.de/>).

DLR provides a self-registration service for scientists interested in gaining access to the data made available for the Supersites and CEOS pilots. 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 accept a user licence agreement, when registering online.

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 Supersite team to develop a collaborative platform and website highlighting the developments and exploitation of data made available.
* DLR invites scientists of the GSNL and CEOS pilots to present at DLR TerraSAR-X Science Team meetings.

DLR Point-of-contact

Achim Roth, tsx.science@dlr.de

# ESA

A – The Geohazards Exploitation Platform to process ERS, ENVISAT & Sentinel-1 data

The Geohazards Exploitation Platform or [GEP](https://geohazards-tep.eo.esa.int) aims to support the exploitation of satellite EO for geohazards. It is a contribution to the CEOS WG Disasters to support its Seismic Hazards Pilot and terrain deformation applications of its Volcano Pilot. The geohazards platform is sourced with elements – data, tools, and processing including INSAR – relevant to the Geohazards theme and related exploitation scenarios. The core user communities for the GEP includes the group of users and practitioners working on the [CEOS Seismic Hazards Pilot](http://ceos.org/index.php?option=com_content&view=category&layout=blog&id=357&Itemid=494) and the CEOS Volcano Pilot. The platform allows users to access and exploit large collections ERS SAR and ENVISAT ASAR data hosted in the [ESA clusters](http://wiki.services.eoportal.org/rss-storage-data.php) and in [ESA’s Virtual Archive](http://wiki.services.eoportal.org/rss-virtual-archive-storage-data.php) alongside with Sentinel-1 data. The GEP also intends to support access to other EO missions’ data than from ESA such as from other space agencies and mission owners and operators.

Link: [https://geohazards-tep.eo.esa.int](https://geohazards-tep.eo.esa.int/), contact: geohazards-tep@esa.int , philippe.bally@esa.int

B- 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[[1]](#footnote-1) available. Access is being granted following the standard data access procedure.

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[[2]](#footnote-2) 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)[[3]](#footnote-3) apply.

Specific reporting requirements

Standard Cat-1 reporting requriements as stated in the T&C[[4]](#footnote-4) apply.

However in order for ESA to promote the Ecuadorian Volcanoes Supersite activities, it would be appreciated to recieve 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

Henri Laur, henri.laur@esa.int

**C - Sentinel-1**

Procedures for data ordering and access

Sentinel-1 is based on systematic observations i.e. as a baseline no specific ordering can be formulated . The Sentinel-1 observation plan already includes the systematic acquisition of major tectonic areas at global level and the GSNL priorities. Operationally qualified product will be available from early 2015. Preliminary qualified products are available since 3rd 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>

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

Henri Laur, henri.laur@esa.int

# EUMETSAT

Procedures for data ordering and access

Near real-time Meteosat data from EUMETSAT are routinely disseminated 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.

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[[5]](#footnote-5) be required, these data are available to the PI without charge or restriction; should access to licensed near real-time Meteosat data[[6]](#footnote-6) be required, data access is granted upon the acceptance of licening 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 requriements as stated in the terms and conditions of the licence apply.

EUMETSAT Point-of-contact

User Helpdesk, ops@eumetsat.int

# JAXA

A. Disasters Pilots

ALOS-2 data is available for the researchers who belongs to particular Pilot program of the CEOS disaster working group. Designated working group are seismic, volcano and flood.

100 scenes pre year (Japanese fiscal year) pre pilot program.

Special access account of (AUIG-2) will be issued to each Pilot program’s representative. Using the account, ALOS-2 scenes can be searched and requested.

Detailed licence condition is as follows.

ALOS-2/PALSAR-2 Data Products User License Agreement

JAXA grants **designated Users of Committee on Earth Observation Satellites (CEOS) (hereinafter referred to as “User”)** to use ALOS-2/PALSAR-2 Data Products for purposes of activities under CEOS Disaster Working Group.

This “ALOS-2/PALSAR-2 Data Products User License Agreement” (hereinafter referred to as “this Agreement”) states the terms and conditions under which User may use ALOS-2/PALSAR-2 Data Products. In order to use ALOS-2/PALSAR-2 Data Products, User must agree to this Agreement. User will be deemed to have accepted and agreed to this Agreement, when User starts using ALOS-2/PALSAR-2 Data Products, including but not limited to, downloading, installing or other actions. Please read this Agreement before using ALOS-2/PALSAR-2 Data Products.

**1. General Conditions for Satellite Data Products**

The following general conditions apply to Satellite Data Products.

1. User shall not duplicate the ALOS-2/PALSAR-2 Data Products. except for necessary data backups.
2. User shall not disclose or distribute the ALOS-2/PALSAR-2 Data Products to any third party, without prior written consent of JAXA.
3. User shall not use the ALOS-2/PALSAR-2 Data Products other than the above mentioned purposes, unless User obtains explicit permits from JAXA in writing.
4. User shall mark the copyright inscription of JAXA for ALOS-2/PALSAR-2 Data Products in reference to the following examples, when the User publishes analyzed results from the ALOS-2/PALSAR-2 Data Products.

For ALOS-2/PALSAR-2 Data Products:

© JAXA

© Japan Aerospace Exploration Agency

Copyright: JAXA

Copyright: Japan Aerospace Exploration Agency

For value-added products processed by Users:

“Original data provided by JAXA”

In addition, User shall indicate appropriate acknowledgement that the ALOS-2/PALSAR-2 Data Products were provided by JAXA as its contribution to CEOS activities.

1. User shall return or otherwise appropriately manage the ALOS-2/PALSAR-2 Data Products upon completion of activities under the above mentioned purposes.

**2. No Guarantees and Warranties**

JAXA does not guarantee any specific quality and accuracy, nor suitability for any purpose of the ALOS-2/PALSAR-2 Data Products. As such, User shall not make any claim against JAXA for any losses nor damages arising out of the use of ALOS-2/PALSAR-2 Data Products.

**3. Intellectual Property Rights**

1. JAXA shall own all intellectual property rights, including copyrights, of ALOS-2/PALSAR-2 Data Products including primary data and any derivative-work product from any of ALOS-2 instruments. “primary data” is understood to mean those raw data that are acquired by remote sensors borne by a space object and that are transmitted or delivered to the ground from space by telemetry in the form of electromagnetic signals, by photographic film, magnetic tape or any other means; “derivative-work products” is understood to mean either a processed product that retains the original pixel structure and can be converted back to the primary data, or a processed product that does not retain the original pixel structure and that cannot be converted back to the primary data, with the exception of value-added products.
2. User shall own all intellectual property rights, including copyrights, of value-added products which result from its acts of interpretation, authorship or any added work on ALOS-2/PALSAR-2 Data Products in order to create value-added products. “value-added products” is understood to mean modified products with high-level processing that cannot be converted back to the primary data. The high-level processing includes data analysis or combining multiple-satellite data, image processing based on external information, and physical quantity conversion.

B. GSNL

In general, JAXA do not have direct data delivery to the GSNL because of the commercial data policy. But JAXA encourages GSNL reserchers to apply announcement of opportunity for researchers to use ALOS-2 data as well as access the data though Disaster pilot programs.

C.JAXA Pint of contact

Takehisa CHIBA, <chiba.takehisa@jaxa.jp>

Nobuyoshi FUJIMOTO <fujimoto.nobuyoshi@jaxa.jp>

* 1. **NASA**
1. EO-1

Procedures for data ordering and access EO-1 data

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.

NASA Point-of-contact

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

#  ASTER

See <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** |
|   [North American ASTER Land Surface Emissivity Database (NAALSED)](https://lpdaac.usgs.gov/products/aster_products_table/naalsed) | Global |
|   [ASTER Global Digital Elevation Model V002 (GDEM)](https://lpdaac.usgs.gov/products/aster_products_table/astgtm) | Global |
|   [ASTER L1B: Registered Radiance at the Sensor V003](https://lpdaac.usgs.gov/products/aster_products_table/ast_l1b) | US and Territories |
|   [ASTER Routine Reconstructed Unprocessed Instrument Data - Expedited (AST\_L1AE)](https://lpdaac.usgs.gov/products/aster_products_table/ast_l1ae) | Global |
|   [ASTER Routine Registered Radiance at the Sensor - Expedited (AST\_L1BE)](https://lpdaac.usgs.gov/products/aster_products_table/ast_l1be) | Global |

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

|  |  |
| --- | --- |
| **Product** | **Coverage** |
|   [ASTER L1A Routine Reconstructed Unprocessed Instrument Data V003 (AST\_L1A)](https://lpdaac.usgs.gov/products/aster_products_table/ast_l1a) | 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](https://urs.eosdis.nasa.gov/) account if you do not already have one.
2. Submit the [application form](https://lpdaacaster.cr.usgs.gov/afd/index.php) 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> 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>

Dr. Ken Duda (duda@usgs.gov)

# NOAA

Procedures for data ordering and access

Estimates of 1-hour rainfall accumulation in ASCII format are available from <http://www.star.nesdis.noaa.gov/smcd/emb/ff/digGlobalData.php>; other formats or time scales are available upon request from Bob.Kuligowski@noaa.gov.

Specific conditions for access and use of NOAA data

None; free-and-open data policy.

Specific reporting requirements

These rainfall products are operational. We kindly ask that you inform Bob.Kuligowski@noaa.gov prior to using the products in presentations or publications.

References:

Kuligowski, R. J., and R. A. Scofield, 2003: Status and outlook of operational satellite precipitation algorithms for extreme-precipitation events. Wea. Forecasting, 18, 1037-1051.

NOAA Point-of-contact

Bob Kuligowski, Bob.Kuligowski@noaa.gov

Procedures for data ordering and access

Multispectral imagery from NOAA’s low earth orbit and geostationary imaging radiometers (VIIRS and GOES, respectively) and associated quantitative volcanic cloud properties (ash cloud height, mass loading, and effective particle radius) are available at:

http://volcano.ssec.wisc.edu

Specific conditions for access and use of NOAA data

None: Free-and-open data policy.

Specific reporting requirements

The quantitative volcanic cloud products are currently being produced experimentally. We kindly ask that you inform Mike.Pavolonis@noaa.gov prior to using the products in presentations or publications.

References:

Pavolonis, M., A. Heidinger, and J. Sieglaff, 2013: Automated retrievals of volcanic ash and dust cloud properties from upwelling infrared measurements, J. Geophysical Research, 118(3), 1436-1458.

Pavolonis, M. J., 2010: Advances in extracting cloud composition information from spaceborne infrared radiances: A robust alternative to brightness temperatures Part I: Theory, J. Applied Meteorol. And Climatology, 49(9), 1992-2012

Pavolonis, M. J., W.F. Feltz, A.K. Heidinger, G. Gallina, 2006: A daytime complement to the reverse absorption technique for improved automated detection of volcanic ash. J. Oceanic and Atmos. Tech., 23, 1422-1444.

NOAA Point-of-contact

Mike Pavolonis, Mike.Pavolonis@noaa.gov

# 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

Brenda Jones, bkjones@usgs.gov

1. http://eo-virtual-archive4.esa.int [↑](#footnote-ref-1)
2. https://earth.esa.int/web/guest/pi-community/apply-for-data/full-proposal [↑](#footnote-ref-2)
3. https://earth.esa.int/pi/esa?type=file&table=aotarget&cmd=image&id=122 [↑](#footnote-ref-3)
4. https://earth.esa.int/pi/esa?type=file&table=aotarget&cmd=image&id=122 [↑](#footnote-ref-4)
5. Data older than 24-hours [↑](#footnote-ref-5)
6. 15-minute, half-hourly and hourly Meteosat SEVIRI level 1.5 data. [↑](#footnote-ref-6)