

## CEOS WG Disasters Telecon #29 MoM

Cisco WebEx Remote Teleconference

3 June 2021

12:00 – 15:30 UTC

*All agenda times observe Coordinated Universal Time (UTC)*

12:00	Adoption of Agenda / Introduction	David Green, NASA
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The CEOS WGDisasters Telecon #29 Agenda was adopted with a note from the Secretariat that four WG activity presenters sent regrets and could not attend the meeting.

12:05	WGDisasters Vice Chair Nomination Proposal <ul style="list-style-type: none"> <li>○ WGDisasters Membership Feedback</li> <li>○ Data Coordination Team (DCT) Lead Role Vacancy</li> </ul>	David Green, NASA Pierric Ferrier, CNES
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Marie-Claire Greening, CEOS Executive Officer, reviewed the official CEOS procedure required to confirm a new CEOS Working Group Vice Chair nomination proposal. This process includes receiving internal agreement across a Working Group of the nomination proposal, current WG Chair raising the issue for review at a CEOS Secretariat meeting and final endorsement and confirmation at CEOS Plenary.

David Green officially informed WGDisasters of a nomination proposal from CONAE of Dr. Laura Frulla as Vice Chair of CEOS WGDisasters for a two-year term, beginning at the 2021 CEOS Plenary, and followed by a two-year term as Chair of WGDisasters in 2023.

Pierric Ferrier noted that on behalf of CNES, he was pleased to have CONAE as Vice Chair for the upcoming two year term.

Simona Zoffoli, on behalf of ASI, thanked CONAE and endorsed the proposal and voiced excitement about active participation of CONAE in the WGDisasters.

Helene de Boissezon, CNES, thanked and welcomed CONAE to next year's co-leadership and eventual leadership of WGDisasters.

Ivan Petiteville, on behalf of ESA, thanked CONAE and Laura for her willingness to lead.

David Hodgson, on behalf of UKSA, welcomed CONAE to the new role, deferring to the CEOS Team at UKSA, but not aware of any objections.

Laura Frulla, CONAE, thanked the WGDisasters, acknowledged that a final decision would be reached at CEOS Plenary, and noted she is looking forward to the new leadership role.

Noting no objections, David Green announced approval of the nomination on behalf of WGDisasters.

### Data Coordination Team (DCT) Lead Role Vacancy / Future

The DCT functions allow:

To officialise the agencies commitment to produce data for a couple of years for each GSNL.

To trace that the reports are delivered every two years.

To have a centralized list of who is receiving what from which agencies.

Facts:

This is not quite interesting to make this work.

No members of WGDisasters have volunteered to take over the DCT Lead role from Pierric Ferrier, who will become WGDisasters Chair at CEOS Plenary 2021.

It may be time to try a new approach to WG data coordination.

Potential paths forward (suggested by David Green):

Try to minimize DCT and data access obstacles to Pilots and Demonstrators or collaborations; that might mean enabling them to organize themselves (how?).

Just provide guidelines and templates along with reporting requirements and build that into existing Pilot and Demonstrator responsibilities (feasible).

Simona Zoffoli noted that the DCT Lead role is quite important as a way to track data exchange amongst the agencies on the provision of data, and she is not in favour of eliminating the DCT and Lead roles.

Pierric Ferrier announced, for the sake of good governance, that he would continue in the role of DCT Lead until summer 2022.

David Green thanked Pierric for volunteering for the sake of continuity.

A replacement DCT Lead, to begin summer 2022 latest, is still needed.

12:15	Review of Open Actions (WGDisasters-15)	Dave Borges, NASA
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WGDisasters Action Tracker spreadsheet updated to reflect WGDisasters Telecon #29 outcomes included with MoM document.

12:30	Volcano Demonstrator ○ Activity Progress / Updates	Susi Ebmeier, Leeds Mike Poland, USGS
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Susi Ebmeier presented status and updates on behalf of the Volcano Demonstrator Team.

Demonstrator Long Term Goal: demonstrate the necessity and viability of international coordination of satellite tasking for volcano monitoring (after polar science community).

Multiple event response examples undertaken by the Demonstrator Team were shared to include: Merapi 2020, Sinabung 2021, St Vincent 2021, Agung 2017, and Fuego 2018.

Updates and take home messages:

Freely available, systematically collected Sentinel-1 imagery is the most important dataset for volcano monitoring over most of the world.

Volcano Demonstrator is active in tasking TSX, as well as providing CSK and Pleiades to volcano observatory scientists and researchers: if you work on monitoring a volcano in Latin America, Africa or SE Asia and you would like to contribute to the Demonstrator please contact Susi Ebmeier or Mike Poland.

High resolution SAR (especially CSK and TSX) has been critical in recent response – volcano observatories are very appreciative of these data.

Commercial imagery (e.g. ICEYE and Capella) can be acquired and delivered very quickly after an event and could make a contribution if provided.

Access to Tandem-X co-SSCs and WorldDEM is incredibly useful for hazard response for many volcanoes – if we could find a way to do this, it would have a significant impact.

L-band imagery remains the best tool for densely vegetated volcanoes and high magnitude deformation events.

Ivan Petiteville requested clarification regarding the conditions under which the Demonstrator has received data from commercial providers.

Susi Ebmeier responded that TSX is obtained through regular channels, Capella have provided a few images for science research and ICEYE have also provided a few images as a demonstration and through the ESA Third Party Mission (TPM).

In summary, commercial imagery is provided in a mostly ad hoc manner currently, but meetings are underway with several of these companies to explore opportunities to obtain data in a more formal manner.

12:45	International Charter: Observer Status Discussion	Pierric Ferrier, CNES
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Pierric Ferrier provided an update to the WG on the Observer Status currently held by the WG in partnership with the International Charter.

The need exists to figure out who is really interested in getting data from the Charter or provide value added (VA) data to the Charter and if constraints are understood by WGDisasters members.

The Charter is an operational entity. This means that time is of paramount importance when processing raw data and delivering VA products to the national disaster management authority which triggered the

Charter. Procedures must be clear and efficient, with a dedicated POC ready to answer. Data links and formats are clearly defined in terms of acceptable VA products.

The Charter works globally, anywhere on Earth, which is opposed to the regional approaches of most Pilots and Demonstrators. In other words, the WGDisasters entity willing to provide VA products to the Charter must be ready to do it wherever the disaster occurs and most of the time not on the specific areas being studied.

WGDisasters members accessing data products from the Charter must understand:

- The member must have COS-2 access as an observer status.
- The member’s request must be submitted within 10 days of a Charter activation.
- Each agency will agree to deliver its data to the requestor as well as the adequate authorizations.
- The data will be accessible after the termination of the Charter activation.
- A report is expected two months after the data delivery.

Pierric Ferrier presented a status chart listing all WGDisasters activities, with columns indicating interest in either “Provision of VA data to the Charter” or “Expecting data from the Charter”.

Answers to the queries to be collected from all WG activities before WGDisasters-16, followed by a letter from WGDisasters to the Charter clearly indicating WG capabilities in the context of the Observer Status.

12:55	Data Coordination Team (DCT) Updates	Pierric Ferrier, CNES
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GEO GSNL Reports due before the end of 2021:

- Icelandic
- Southern Andes
- Virunga
- Ecuador

Data Provision Agreements Status

New Supersite agreement: Nicaragua, letter distributed March 2021.

Recent Supersite Renewal Agreements

- Campi Flegrei Vesuvius, April 2021
- Marmara, April 2021
- Etna, April 2021
- Hawaii, April 2021
- Ecuador, to be completed

Recent Supersite put in stand-by (due to no data requests): Greek (Enceladus) Corinth Gulf/Ionian Islands.

13:05	MIM Database: Disaster/Risk Application Information	Ivan Petiteville, ESA
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Ivan Petiteville presented latest thoughts on the concept of updating the CEOS (MIM) Database to target new communities of users that are less familiar with satellite missions and instruments, but that have knowledge of specific phenomena (e.g. volcanoes) and/or measurements.

Objectives include increasing awareness of non-EO specialists and showing that remote sensing is a valuable and reliable additional source of information that can benefit multiple domains.

Currently, CEOS MIM has no dedicated “Applications” tab and no indication of types of hazards. Existing “Applications” query field gives very limited results (a ‘flood’ search yields 1 mission) due to insufficient information attached to the individual mission and instrument.

Proposed way forward:

WGDisasters could work with CEOS MIM Team (ESA, Symbios) to define the improvements to be brought to CEOS MIM to better serve the DRM community (decision-makers, practitioners, scientists, disaster experts).

In operations, WGDisasters would be responsible for filling the CEOS MIM database with the relevant information, and keeping it up to date.

A thematic interface wireframe was shared with the WG highlighting how the new content could be reflected in new sections of the MIM Database.

Simona Zoffoli asked what the motivation was for this effort – did the team receive any expressions of interest from known EO user communities to access/build out this database, noting it would be a big ask of the WG to modify the database. Ivan Petiteville responded that the concept was raised in response to the CEOS Chair Initiative (Space-based Earth Observation Data for Open Science and Decision Support).

Helene de Boissezon asked if any user communities were already being queried to provide direct feedback and needs from the community. Ivan Petiteville confirmed this has not occurred, and there was general consensus that this aspect would be needed to guide development of this new MIM capability.

13:15	Wildfire Pilot ○ Activity Progress / Updates	Joshua Johnston, NRCan Helena van Mierlo, CSA Peter Moore, UN FAO Doug Morton, NASA
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Helena van Mierlo presented an update on current status of the newly endorsed Wildfire Pilot.

The Pilot aims to provide a comprehensive gap analysis for active-fire Earth observation.

The Pilot currently has four specific Objectives:

Conduct a detailed inventory and gap analysis of existing and proposed EO systems suitable for global active-fire monitoring; considering climate change driven fire regime changes and projected mission life spans.

Conduct a detailed analysis of global stakeholders and end-users of near-real-time active-fire EO data.

Define targeted user requirements for active-fire remote sensing systems for the disaster mitigation applications.

Propose a way forward in coordinating global wildfire monitoring activities.

Marcelo Uriburu Quirno, CONAE, asked for confirmation that only active-fire monitoring would be the initial focus of the Pilot. Helena responded that while all phases are relevant and of interest, pre-fire is a vast area with a lot of interest, but the Pilot Team needed to refine scope to a management amount of objectives given initial timeframes otherwise progress would be very limited. While the Pilot Team understands active-fire is only a part of the larger picture, it will be the initial focus of the Pilot.

Peter Moore, UN-FAO, noted that while many fire monitoring systems already exist, many are not applied in developing countries, so the Pilot Team wants to understand what developing nations do now, what limitations exist and specific future needs.

13:30	Landslide Demonstrator ○ Activity Progress / Updates	Jean- Philippe Malet, UNISTRA Dalia Kirschbaum, NASA Corey Froese, BGC Clément Michoud, Terranum
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Landslide Demonstrator Co-Leads were not able to attend Telecon 29, and a presentation was not given during the meeting.

An update presentation was shared with WGDisasters and is available for review on the Telecon 29 website.

13:45	Seismic Hazards Demonstrator ○ Activity Progress / Updates	Dorella Papadopoulou, ARGANS Philippe Bally, ESA
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Seismic Hazards Demonstrator Co-Leads were not able to attend Telecon 29, and a presentation was not given during the meeting.

The following updates were shared by the Co-Leads prior to the meeting.

Regarding the Seismic Demonstrator we have received 2 new requests for Pleiades imagery:

One for Pleiades imagery over Qinghai, China earthquake which is being processed by CNES. For this event, I even contacted the Charter to ask for VHR data as the user (John Elliott from University of Leeds and COMET) had interest to acquire as much VHR as possible. We are expecting responses from some Charter members having VHR missions (e.g. USGS).

One for CosmoSkyMed over the Thessaly, Greece earthquake, we have been receiving from ASI all available acquisitions since March 2021 (user: Athanassios Ganas, NOA and Michael Foumelis, AUTH).

14:00	GeoHazards Lab ○ Activity Progress / Updates	Dorella Papadopoulou, ARGANS Philippe Bally, ESA
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GeoHazards Lab Co-Leads were not able to attend Telecon 29, and a presentation was not given during the meeting.

The following updates were shared by the Co-Leads prior to the meeting.

Regarding the Geohazards Lab:

Adopting services on GEP for being resilient to data and orbit access issues as well as DEM availability from public servers.

Responding to major geohazards events (e.g. Tirnavos earthquake in Greece).

Presentation at Fringe 2021 (on 3 June).

Trans-Atlantic Training organized by ESA & NASA <https://tat.web.auth.gr/> (on-going).

14:15	GEO Geohazard Supersites & Natural Laboratories (GSNL) ○ Activity Progress / Updates	Stefano Salvi, INGV
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GEO GSNL leadership was not able to attend Telecon 29, and a presentation was not given during the meeting.

The following updates were shared by GSNL leadership prior to the meeting:

Nyiragongo volcano, in the Virunga Supersite, has erupted. We managed to obtain NRT CSK data and access to SAOCOM data (Mike, in cc may report on these subjects). We coordinated with the Volcano Demonstrator to avoid overlap in data requests. Also Pleiades coverage has been requested to make a DEM and calculate the volume of the erupted products. There was an issue with CSK data distribution through the GEP, hopefully it will be solved soon. The Rwanda Space Agency has requested Jens and Steven Ramage to be informed about the volcanic activity in Goma, the Supersite Coordinator will contact them.

The Nicaragua Supersite Coordinator at INETER has organised the official launch of the Supersite for June 3.

The GSNL SAC has drafted a new governance scheme. After we complete the first round with the Supersite Coordinators, we will discuss it with CEOS.

14:30	GEO-DARMA ○ Activity Progress / Updates	Ivan Petiteville, ESA Andrew Eddy, Athena Global
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Andrew Eddy presented updates and progress of the GEO-DARMA Initiative.

GEO Programme Board Review Team made the following assessment (24 Aug 2020):

Review Team congratulated GEO-DARMA on strong relationships with regional institutions. Projects have been slow to start due to funding problems and now COVID. Prospects for better results in 2021 in Africa (PRIDE) and Asia (UN-GGIM). Recommends selecting priorities and pushing for faster implementation for those projects.

GEO-DARMA has focused on developing interest for new projects, especially in Africa and LAC:

PRIDE-Botswana: RCMRD and Uni Bochum will partner for a proposal to develop a PRIDE pilot in Botswana.  
Colombian University risk reduction effort: project to showcase local risk reduction projects using high resolution imagery (suspended due to COVID but could start again mid-2021).  
Long-term collaboration with CEPREDENAC: build on RO Demonstrator activation work to provide satellite data for long-term recovery monitoring and risk reduction efforts (CEPREDENAC GIS Team).

14:45	Recovery Observatory Demonstrator ○ Activity Progress / Updates	Helene de Boissezon, CNES Andrew Eddy, Athena Global
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Helene de Boissezon and Andrew Eddy presented updates and progress of the RO Demonstrator, and specifically the Hurricanes Eta/Iota activation.

RO Demonstrator activation for Eta/Iota aims to:

Complete existing damage assessments by providing details on damage in remote areas and status of recovery efforts.  
Identify new risk created by Eta/Iota and support risk reduction initiatives.  
Assess capacity for use of EO for recovery in the region and develop capacity development plan.

The RO Demonstrator activation "RO Iota" began in April 2021 and will run to September 2021, ending with a final RO Report and hand-off for capacity development. On-going activities (e.g. capacity building) may continue outside the scope of the RO Demonstrator.

Helene de Boissezon commented that the RO Demonstrator is open to every request from the tripartite partners if there is a strong need. Andrew Eddy confirmed the Demonstrator Team will need to ensure a steady state mode is achieved before starting a new activation, as the team should not run two efforts in parallel at this time.

15:00	Flood Pilot ○ Activity Progress / Updates	Dave Borges, NASA Mitch Goldberg, NOAA Guy Schumann, RSS-Hydro
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Dave Borges presented updates and current progress of the GEO/LEO/SAR Flood Pilot.

The Flood Pilot includes the following objectives:

Solicit input from CEOS partnering agencies and participants on current and upcoming efforts to map water and flood extent from a diversity of LEO/GEO and SAR platforms and sensors.

Capture underlying requirements and future needs to sustain and improve upon these capabilities.

Explore ideal combinations of LEO/GEO/SAR flood mapping outputs, using representative regional events of interest to partners.

Develop and document best practices for combining and sharing flood information from multiple platforms and sources with diversity in sensor, spatial/temporal resolution, etc.

The Flood Pilot currently includes six Subgroups led by different WG member agencies:

SG1: Red River of the North (Vince Decker, NRCan)

SG2: Bermejo and Picomayo Basins (Marcelo Uriburu Quirno, CONAE)

SG3: Brahmaputra River and Mahanadi Delta (G.S. Rao, ISRO)

SG4: Pearl River Basin (Weiyuan Yao, CAS)

SG5: Balkans Transboundary, Evros Basin (Issaak Parcharidis, Harokopio University of Athens)

SG6: Myanmar (Patrick Matgen, LIST)

Monthly team meetings led to the development of a final Data Call Form, aggregating all data sources of interest for each subgroup. Partnership with CEOS WGISS and SEO has led to agreement to leverage the new CEOS Earth Analytics Interoperability Lab (EAIL). Pilot Team accounts are actively being created, while subgroup focus areas are established within the EAIL environment and data procurement and loading into EAIL is ongoing.

15:30	UN-GGIM WG-Disasters Collaboration Updates	Simone Lloyd, UN-GGIM WG-Disasters Chair Team
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Simone Lloyd prepared a presentation updating CEOS WGDisasters regarding the ongoing collaborative efforts between CEOS and UN-GGIM WG-Disasters.

Collaboration efforts have included contributions to the new UN-GGIM WG-Disasters Work Plan, awareness raising of the UN-GGIM WG-Disasters Strategic Framework on Geospatial Information and

Services for Disasters, maintenance of an inventory of DRR bodies facilitated for collaboration and coordination of efforts, and maintenance of an inventory of geospatial information and services platforms (including EO) to support these collaboration efforts.

UN-GGIM WG-Disaster also invited to present, at the invitation of the GEO DRR WG, at the GEO Virtual Symposium 2021, Session C: Earth Observation Strategies, Partnerships and Services for DRR.

15:15	Future Meeting Planning / AOB <ul style="list-style-type: none"> <li>○ Future meeting timing</li> </ul>	David Green, NASA Dave Borges, NASA
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Noting the new two-week proposed format of the CEOS 2021 SIT Technical Workshop in September, the WGDisasters Chair Team proposed that WGDisasters-16 be held the week of September 20, 2021. There was general consensus from the WG that this week would be best. WGDisasters Secretariat will distribute final meeting dates along with a draft agenda for review.

15:30	End Teleconference	
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*CEOS WGDisasters Website Metrics Update*

(June 1, 2020 – June 1, 2021)

The WGDisasters main page is the 13th most viewed page of the CEOS website out of hundreds of pages with 1460 pageviews in the last year. Here’s a more detailed drill-down of pageviews for the other WGDisasters pages (in order from most pageviews to least pageviews):

- WGDisasters Meetings (456)
- WGDisasters-15 (328)
- GEO-DARMA (266)
- Volcanoes (262)
- Floods (248)
- GSNL (232)
- Landslide Pilot (230)
- Geohazards Lab (212)
- Wildfire Pilot (203)
- WGDisasters-14 (196)
- Recovery Observatory (167)
- Earthquakes (131)
- Background info (129)
- Members & Contacts (127)