

# CEOS SEC Report

**Entity:** CEO

**Prepared By:** Steven Hosford (ESA/CNES)

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## **Updates on issues raised during the last CEOS SEC teleconference (Dot points)**

### **1. Status of CEOS Membership enquiries:**

- **NIER** (S. Korea). No news since the CEO sent an email on 17/05. Reminder sent by CEO on 26/06.
- **Centre for Space Science Technology**. The CSST has been informed that it would not be eligible for CEOS associate membership in line with the discussion at SEC-237. They have indicated a willingness to participate in CEOS Working Group activities. CEO has provided links to information on CEOS WG/VC activities and remains available to help CSST identify which groups might be of interest.

### **2. Freshwater from Space Workshop.** Discussion have been restarted among the Workshop leads bring together Selma Cherchali, Alex Held and Arnold Dekker. After some reworking of the Workshop programme, a Programme Committee has been solicited and choice of dates for a TC is underway. At that TC, the intention is for the Programme Committee to:

- Finalise the dates for the workshop (now likely week of 12<sup>th</sup> November, venue in the Netherlands)
- Review and update the agenda
- Identify the main workshop contributors and the best means to solicit them
- Identify additional targeted workshop participants (and the means to solicit them)

The Programme Committee TC should take place before 13<sup>th</sup> July.

## **Issues requiring discussion/decision during current CEOS SEC teleconference (Dot points)**

### **1. CEOS Membership enquiries:**

- **United Arab Emirates Space Agency**. CEO received a letter from UAE SA enquiring about CEOS membership on 7<sup>th</sup> June.

Several emails have been exchanged since and a formal CEOS membership request addressed to CEOS Chair should come shortly. Once this letter is received, it will be discussed at CEOS-SEC and a decision will be taken on whether to invite UAE SA to present their request for CEOS membership at CEOS Plenary 32.

- 3. CEO Search Committee.** No progress made since last SEC. CEO anticipates organising a short TC with a group of CEOS “old-hands” for guidance before mid-july.

### **Other highlights, activities, actions, projects, collaborations**

(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Update of the CEOS 101 presentation is 90% complete and should be finished by end june.

### **Upcoming meetings or events**

(Dot points, e.g. meetings, conferences of relevance, visits)

- “Satellite Data Interoperability Sprint” organised by Planet/Radiant Earth on 13<sup>th</sup>-15<sup>th</sup> August. CEOS to provide perspective on Analysis Ready Data and approach promoted by LSI-VC (CARD4L).

### **Attachments**

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

# CEOS SEC-238 Report

**Entity:** SIT Chair Team

**Prepared By:** Kerry Sawyer (NOAA)

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## **Updates on issues raised during the last CEOS SEC teleconference**

### **(Dot points)**

- Action 237-01:
  - Have not confirmed with Pascal about sole representation at GEO-C Steering Committee. Next meeting will be telecon in September

## **Issues requiring discussion/decision during current CEOS SEC teleconference**

### **(Dot points)**

- SIT-33 Actions
  - **SIT 33-02- CLOSED:** LDN Language – SDG Co-Chair/SIT Vice Chair agreed at SIT to draft language that captures CEOS support (commitment) to the LDN Initiative proposal. Language was not prepared nor provided but Kerry Sawyer did verbally report at 9<sup>th</sup> GEO Programme Board that CEOS had discussed how to reflect CEOS support for GEO Initiatives and Activities, including LDN, and CEOS would fully support LDN, based on agreement from many CEOS space agencies as discussed at SIT-33
  - **SIT 33-06 – CLOSED:** Letter sent to Landsat Advisory Group
  - **SIT 33-09:** Freshwater from Space Workshop planning and schedule. CEO and SIT Vice Chair to report
  - **SIT 33-10- CLOSED:** GFOI Letter – response has been prepared; need SEC concurrence to send forward to GFOI.
  - **SIT 33-13:** GEO-C Steering Committee representation – need to have confirmation from Pascal and SEC that only Pascal will represent CEOS on the GEO-C Steering Committee (same as SEC 237-1).
  - **SIT 33-16:** SIT Chair Team will provide an update on the LEO-GEO presentation at CGMS-46 at SEC-239
  - **SIT 33-17 – CLOSED:** WGClimate

- CEOS 2018 SIT Technical Workshop:
  - Formal invitation letter sent on 25 Jun 2018
  - Registration and accommodation deadlines are fixed. Meeting registrations are due 24 August (online registration is now open; accommodation room blocks will expire 31 July or 10 August, depending on hotel). Please refer to logistics package, which is also on the SIT Tech Workshop website.
  - Side meetings must be submitted by 31 July
- VC/WG Day and VC/WG/AHT Telecons
  - Proposed agenda for the day shared with VCs, WGs, and AHTs in preparation for upcoming VC/WG/AHT tag-up telecons with SIT Chair.
    - Tag-ups: different format for this second round – 90-minute thematic telecons with multiple entities; 23, 25, 30 July and 2 Aug
      - Oceans VCs
      - WGCapD/WGDisasters/SDG AHT
      - AC-VC/P-VC/WGClimate
      - WGISS/WGCV
      - LSI-VC/SDCG/GEOGLAM/FDA AHT
  - Attendance at the VC/WG Day will be by approval of SIT Chair Team to ensure discussions are focused on topics relevant to the VCs and WGs (not trying to be exclusionary).

### **Other highlights, activities, actions, projects, collaborations**

**(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- Will provide a written summary of the 9<sup>th</sup> GEO Programme Board by SEC-239

### **Upcoming meetings or events**

**(Dot points, e.g. meetings, conferences of relevance, visits)**

- CEOS 2018 SIT Technical Workshop will be held 11-14 September 2018 in Darmstadt (hosted by EUMETSAT).

### **Attachments**

**(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)**

# CEOS SEC Report

**Entity:** GEO SEC

**Prepared By:** Akiko Noda (GEO Secretariat)

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## **Updates on issues raised during the last CEOS SEC teleconference**

**(Dot points)**

- NA

## **Issues requiring discussion/decision during current CEOS SEC teleconference**

**(Dot points)**

- NA

## **Other highlights, activities, actions, projects, collaborations**

**(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- Over 150 people participated. GEO Symposium (11-12 June)  
The Symposium included sessions on:
  - Opportunities for integration across the GEO engagement priorities;
  - Challenges and opportunities for data sharing and data management;
  - Addressing gaps in in-situ terrestrial observations;
  - Transformative digital technologies;
  - Regional coordination;
  - Engaging the commercial sector in the GWP; and
  - A Programme Board round table.
- Climate Workshop (13 June)  
The Workshop showed GEO's convening power. 108 people attended. GEO succeeded in inviting key role players like UNFCCC, IPCC, WMO, GCOS and CEOS. The Workshop identify that GEO could also contribute to adaptation and loss & damage.
- 9<sup>th</sup> Programme Board Meeting (14-15 June)  
Incoming GEO Sec director partially addressed his vision of 'result-oriented GEOSS'. There was lots of discussion on how to place Regional GEOSS.

## **Upcoming meetings or events**

**(Dot points, e.g. meetings, conferences of relevance, visits)**

- GEO Secretariat will have a new Director, Mr. Gilberto Camara in July.
- Executive Committee (Geneva, 18-19 July)
- GEO Week 2018 (Kyoto, 29 October-2 November)  
The venue is the Kyoto International Conference Center  
First call for interest of side events and Exhibition was closed on 15 June. The second call with the price list may be released soon.

# CEOS SEC 238 Report

**Entity:** WGDisasters

**Prepared By:** Simona Zoffoli (Italian Space Agency), David Green (NASA)

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## **Other highlights, activities, actions, projects, collaborations**

**(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- WG Disasters teleconference n.21 held on June,11.
- Geohazard Supersites and Natural Laboratories (GSNL),
  - o ongoing eruptive activity at Kīlauea Volcano, one of the Hawaiian Supersite. Space Agencies are providing data helping to understanding the development of the current eruptive activity and possible future outcomes.
- Recovery Observatory (RO), DRM Landslide Pilot, Geohazard Lab
  - o On going projects are progressing without any issue in the reporting period.
- New initiatives (Volcano Demonstrator, Seismic Demonstrator, GEODARMA)
  - o Eruption at Fuego Volcano (Guatemala), the CEOS Volcano demonstrator team is supporting the Local Observatory with EO products.
  - o Data Coordination Team is consolidating the data provision to each project
- ESA Living Planet Symposium, Milan, May 2019
  - o The WG on Disasters has proposed the following session under the topic “Managing Risks”: “Satellite derived information and improved risk management – connecting the dots”. An improved understanding of risk is critical to building resilient societies. This understanding implies better knowledge of the evolving hazard, better knowledge of existing exposure, and a connection to related vulnerabilities. By combing all three, risk can be modelled effectively and decisions can be taken to reduce risk. CEOS has worked for several years on risk reduction (e.g., volcanic, seismic, landslide and flooding risk) and is currently beginning multi-hazard risk management projects in several countries. Satellites have a key role in relation to this improved understanding. The session wants to provide insight into each of the elements of the risk equation and will wrap-up with a debate on where efforts should be placed to increase satellite contributions.

## **Upcoming meetings or events**

**(Dot points, e.g. meetings, conferences of relevance, visits)**

- 10<sup>th</sup> CEOS WG Disasters meeting, hosted by INGV to be held in Naples, Italy, 5-7 September 2018, colocation with the City on Volcanoes 10 Conference.

# CEOS SEC 238 Report

**Entity:** WGISS (Working Group on Information System and Services)

**Prepared By:** Mirko Albani - Chair (ESA), Rob Woodcock – Vice-chair (CSIRO)

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## **Other highlights, activities, actions, projects, collaborations**

**(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- WGISS 2018-2020 internal Work-plan formally issued. It addresses, among others, all actions assigned to WGISS in the CEOS 2018-20 Work-plan.
- Key-note speech on CEOS WGISS held at PV2018 Conference - Adding value and preserving data, hosted by UKSA in Harwell (UK).
- Joint teleconference with WGCV held on 19 June to progress on actions defined during the joint Session held at WGISS#45. Next steps defined in the following four topics:
  - Data Formats and Interoperability in the framework of FDA
  - Quality Indicators in Discovery Metadata
  - CEOS Data Cubes and CEOS Test Sites Data Access in support of WGCV Activities
  - Standardization and Best Practices
- WGISS Brochure under finalization including one-page flyers targeting specific audiences.
- *Data Preservation and Stewardship*
  - White Paper on Data Stewardship Reference Model being drafted. Finalization expected by September 2018.
  - Proposal for Data Management Principles Implementation Guidelines (DMP IG) update on the basis of CEOS WGISS Maturity Matrix being drafted. Finalization expected by October 2018.
- *Data Discovery and Access*
  - WGISS Connected Data Assets metrics:
    - Several contributing agencies.
    - Discoverable collections (via IDN): over 32,700+ (over 15,600+ GEOSS DataCore)
    - Searchable granules: over 296+ million (more added daily from live missions)
    - CEOS IDN/CWIC/FedEO visible as searchable catalogue in the GEOSS Platform and other clients.
  - WGISS Connected Data Assets Activities:

- Additional data assets connected (ESA SMOS and some ESA Third Party Missions data holdings).
  - Activities on WGClimate *ECV inventory Version 2.0* datasets registration in IDN to be resumed.
  - Awaiting feedback from ChinaGEOSS for connection to WGISS Connected Data Assets.
  - Planned teleconference with COVERAGE team to assess feasibility of providing access to key thematic datasets through the WGISS Connected Assets Infrastructure.
  - DIF-10 metadata model operational on IDN. Translation of existing metadata from DIF-9 into DIF-10 completed at 60%.
  - OpenSearch Conformance Testing document under review.
- *Interoperability and Use*
    - CEOS Work-plan 2018-20 FDA actions assigned to WGISS being addressed.
    - Carbon Portal development activities progressing in coordination with CEOS Carbon Team. New portal issue planned for mid July
  - *Technology Exploration:*
    - A new webinar on "Scrum and Scale Agile Method" will be organised in July/August.

#### **Upcoming meetings or events**

##### **(Dot points, e.g. meetings, conferences of relevance, visits)**

- WGISS 46 – October 22-25, DLR (Oberpfaffenhofen (near Munich), Germany): Agenda under preparation.



# CEOS SEC-238 Report

**Entity:** WGCapD

**Prepared By:** A. Senthil Kumar (Chair/ISRO) and Nancy (Vice Chair/NASA)

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## **Updates on issues raised during the last CEOS SEC teleconference**

**(Dot points)**

- NIL

## **Issues requiring discussion/decision during current CEOS SEC teleconference**

**(Dot points)**

- Liaison and joint member of both WGCapD and SDG-AHT has retired, and need additional ways to engage to support deliverable to identify SDG-related training and capacity-building opportunities. This deliverable will need support of trainers/subject experts from WGs, Data Cube teams.
- Need to engage support of VAST and GISTDA with WGCapD to explore possible AOGEOSS synergies.

## **Other highlights, activities, actions, projects, collaborations**

**(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- WGCapD members ESA, UK National Centre for Earth Observation, and NASA provided 3 days of training June 22 – 25, 2018 on SAR; SAR applications for flood mapping, pollution mapping, and forest height estimation; climate data set processing; and, use of Earth Engine for image visualization and processing. These trainings proceeded the AfriGEOSS Symposium presently undergoing from June 26-28, 2018 in Libreville, Gabon.

## **Upcoming meetings or events**

**(Dot points, e.g. meetings, conferences of relevance, visits)**

- Preparing training contributions to training course on image processing for disaster response at upcoming AmeriGEOSS 2018 training program August 6 – 10, 2018 at INPE in Sao Jose dos Campos, Brazil.

# CEOS SEC Report

**Entity:** WGCV

**Prepared By:** Kurt Thome, Chair, NASA  
Cindy Ong, Vice Chair, CSIRO

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## **Updates on issues raised during the last CEOS SEC teleconference**

**(Dot points)**

- None

## **Issues requiring discussion/decision during current CEOS SEC teleconference**

**(Dot points)**

- None

## **Other highlights, activities, actions, projects, collaborations**

**(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- WGCV held a telecon on May 31 with discussions concentrating on the agenda for WGCV meeting planned for August, methods to address the cloud mask task group, work plan actions, improved outreach via the WGCV web site and Cal/Val Portal, and subgroup and agency reports.
- Plans are underway for the August 28-31 WGCV-44 meeting at EUMETSAT. The agenda will take advantage of the presence of WGClimate Chair, multiple VC representatives, and GSICS leads. Key topics during the meeting will include WGCV's role within CARD4L, GHG and biomass product validation, and WGISS/WGCV joint activities
- WGCV and WGISS members held a joint telecon on June 19 as a follow up to activities from the recent Brazil meetings between the two working groups. Near-term actions were developed related to data formats and interoperability in the

frame of FDA, quality indicators in discovery metadata, CEOS data cubes and CEOS test sites data access, and standardization and best practices for validation data sets. A follow-on telecon is being scheduled for the week of September 3 to evaluate progress on the actions.

- A committee to organize a workshop on pre-flight calibration techniques to address CV-03 held a telecon on June 21 to determine candidate locations, agenda, and possible participants with the meeting announcement planned prior to the CEOS Plenary.
- Leads were identified to develop a cloud mask intercomparison using the ACIX approach as a model to address CV-14 and an initial meeting is planned for Oct. 17-18, 2018 in College Park, Maryland, USA
- WGCV Chair participated in the recent LSI-VC telecon as part of the discussion of WGCV's role in the CARD4L process. The proposed approach where WGCV provides peer review of the data providers self assessment was agreed upon as a good path forward. Details on how such a peer review will take place will be discussed during WGCV-44 along with determining a point of contact within WGCV for CARD4L assessments. The approach will likely follow a similar one being used for RadCalNet. Further discussions between LSI-VC and WGCV are planned for the SIT Technical Workshop.

### **Upcoming meetings or events**

**(Dot points, e.g. meetings, conferences of relevance, visits)**

- WGCV-44 Aug. 28-31, 2018 hosted by EUMETSAT in Darmstadt, Germany
- WGCV Microwave Subgroup meeting at EUMETSAT in Darmstadt, Germany Aug. 27, 2018
- CEOS-WGCV Cloud Masking Inter-comparison Exercise (CMIX) and the second Atmospheric Correction Inter-comparison Exercise (ACIX II) will meet 17-18 October in College Park, Maryland, USA

# CEOS SEC-238 Report – June 2018

**Entity:** SEO

**Prepared By:** Brian Killough (NASA)

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## Issues requiring discussion/decision during CEOS SEC teleconference

- None

## Updates on issues raised during the last CEOS SEC teleconference

- Jono submitted a GEO side event request from CEOS (on behalf of the Open Data Cube Partners) on "Applying the Open Data Cube Technology to the Sustainable Development Goals".
- The SEO submitted a request for a CEOS exhibition booth to GEO. As we get closer to this meeting, the SEO will work with other CEOS groups to coordinate content. To date, we have received the following ideas for content: Analysis Ready Data (ARD), Open Data Cube (ODC) algorithms and use cases, CEOS data for SDGs, demo of COVE tool and new updates and features, highlight recent CEOS launches since the last GEO meeting and their relevance, upcoming training (from WGCapD).
- In the past, the SEO has helped pay for the CEOS exhibition with support from the CEOS and SIT Chair teams. No cost information has been received at this point, but when available, the SEO will reach out to the teams for financial support.

## Upcoming meetings or events

- The SEO team will be attending the IGARSS conference in Valencia, Spain on July 23-27. There will be 13 papers presented in 3 sessions with a focus on the Open Data Cube (ODC). These papers include applications, algorithms and infrastructure topics. Preceding the conference, the SEO team will conduct a full-day ODC training session for 25+ international users.

## Other highlights, activities, actions, projects, collaborations

- The SEO is hosting 5 summer students as part of NASA's DEVELOP project from June 4 to August 10. They are working on the Open Data Cube with a team from Colombia (IDEAM and the Univ. of Andes). The project will focus on deforestation detection and a land classification workflow.

# CEOS SEC Report – June 2018

**Entity:** Ad Hoc Team SDG

**Prepared By:** Flora Kerblat (CSIRO)

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## **Issues requiring discussion/decision during current CEOS SEC teleconference**

- We are looking for a 3<sup>rd</sup> co-chair (Americas region) to replace Eric W. (USGS) who stepped down a few weeks ago. This is mainly to represent the team in the US meetings we can't attend, and be proactive to help co-lead the team (strategically)
- We would like other agencies to step up and support more regularly our work on SDG activities, or report on their activities

## **Other highlights, activities, actions, projects, collaborations**

- LDN sub-team created to help working on the Terms of Reference/Implementation Plan for the GEO new initiation on LDN (incl Marc P., ESA and Neil Sims, CSIRO)
- UNOOSA +50 event: ESA organised a side-event, and Marc P. gave a presentation (incl. CEOS activities like the CEOS EOHB)
- ESA project for an in-depth analysis of EO contributions to SDG to start soon (Marc) – a draft to be available at SIT TW in Darmstadt
- CSIRO had a cross-organisation (internal) workshop on SDG (early Mary) : Alex & Flora attended and represented EO
- CSIRO is organising a workshop with other key partners (incl. GA, the Australian Department of Foreign Affairs, Embassy of France, EU delegation, CNES, etc.) on **EO for the Pacific on Sustainable Development** (incl., SDG): **2&3 October, in Brisbane** (a 'save the date' to be sent off very soon)
- Pacific Data Cube proposals are being put together (GA, CSIRO)
- Special issue RSE Journal on SDG (led by Graciela Metternicht, UNSW Australia): ~90 abstracts received (incl. GEO initiative like GEOGLAM)! Co-editors (incl. Argie (NASA/EO4SDG), Flora) have reviewed them and informed the authors of the outcome. Entire Papers to be submitted by 30<sup>th</sup> September 2018.

## **Upcoming meetings or events**

- HLPF in NY in July: Important EO Side-event coordinated by Australia (GA (incl. Jono) and other partners incl. CSIRO, Flora/Neil) with other CEOS partners
- Future telecom co-lead tag-up with SIT chair end of July
- Future telecom with Lawrence/Argie to be planned soon, to discuss and clarify GEO and CEOS roles with SDG activities