**Minutes V1.0**

**237th CEOS SECRETARIAT MEETING**

Thursday 24th May 2018

Chaired by COM

**Participants**

**CEO:** Steven Hosford

**COM:** Astrid-Christina Koch, Michael Berger, Mauro Facchini, Matt

Steventon, Stephen Ward

**ESA:** –

**EUMETSAT:** Robert Husband

**GEO SEC:** Akiko Noda

**JAXA:** Osamu Ochiai, Koji Akiyama, Yukio Haruyama

**NASA:** Christine Bognar

**SIT Chair Team:** Kerry Sawyer

**SEO:** Brian Killough

**SIT Vice-Chair Team:** –

**USGS:** Eric Wood

**VAST:** Linh Phan

**WGCapD:** Senthil Kumar, Nancy Searby

**WGClimate:** Jörg Schulz

**WGCV:**  Kurt Thome

**WGDisasters:** Simona Zoffoli

**WGISS:** Mirko Albani

1. **Welcome and Introductions, Review of Agenda, Action Status**

Astrid-Christina Koch (COM, CEOS Chair Team) welcomed everyone to CEOS SEC-237.

Regarding action **SIT-33-06**: Astrid reported that a letter was sent to the Landsat Advisory Group of the National Geospatial Advisory Committee.  It will be shared with CEOS SEC for review in the next few days.

Astrid noted that all other open actions will be covered under their respective sections.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

* Virtual endorsement of the WGClimate ECV Inventory Gap Analysis Report and Coordinated Action Plan is complete. The final documents were distributed to SEC on May 23.
* South Korea’s National Institute for Environmental Research (NIER) has re-initiated their application to join CEOS. After several communications over the past few months, we are expecting to receive an application letter from NIER in the coming weeks.
* An inquiry on CEOS membership was received from the Centre for Space Science Technology, New Zealand. Initial exchanges suggest it is a recently created private organisation with public funding, which indicates it would not be eligible as a CEOS Associate member. It could however contribute to CEOS through the Working Groups.
* Steven is considering how to approach the identification of the next CEO, and will start following up on this in the coming weeks.

1. **SIT Chair Report**

Kerry Sawyer (NOAA, SIT Chair Team) reported:

* Action **235-02**: CEOS SEC needs to identify a CEOS representative to the Sustainable Earth Observations Subgroup as discussed at SEC-235, SEC-236, and SIT-33. Jonathon Ross (GA, SIT Vice Chair Team) has volunteered but will be operating in a dual role. Kerry welcomed further nominations for other volunteers, however none were forthcoming. Jonathon’s nomination was accepted and the action **closed**.
* Action **236-01**: The SIT Chair Team is aware of the following CEOS attendees to the GEO Symposium: Steve Volz (dual role), Steven Hosford, Jonathon Ross, Kerry Sawyer. Jörg Schulz (EUMETSAT, WGClimate Chair) indicated that he will attend the symposium and the climate workshop the following day. Nancy Searby (NASA, WGCapD Vice Chair) will also attend (also ‘dual-hatted’ as GEO Capacity Building Lead). The action was **closed**.
* Action **236-02**: No SIT-34 conflicts have been relayed to the SIT Chair Team for March/April 2019, outside of the previously reported dates for EGU and the Space Symposium. Based on the holiday calendar, the week of 1 April 2019 has been selected. The location for the SIT-34 meeting will be either Miami, Ann Arbor, or Seattle. Christine Bognar (NASA) noted that some CEOS people have traveled since SIT-33 and have not had a chance to respond; she offered to check the acceptability on the NASA side and let Kerry know.
* The draft SIT-33 decision and action list has been distributed, and several comments have been received.
* **SIT-33-02**: The SDG-AHT Co-Chairs (Alex Held, CSIRO; Marc Paganini, ESA) agreed at SIT-33 to draft language that describes CEOS support (commitment) to the GEO Land Degradation Neutrality Initiative proposal. Agencies have also independently indicated support. Steps are being taken to move this action forward.
* **SIT-33-09**: As reported at SIT-33, the Freshwater from Space Workshop has been postponed until November. The SIT Vice Chair Team will work to identify attendees and suitable dates.
* **SIT-33-10:** The SIT Chair has prepared a response to GFOI on CEOS/SDCG support to Phase 2 of GFOI and shared it with the CEOS Chair Team for concurrence and transmission to GFOI. Kerry asked that anyone interested in also reviewing the letter to please let her know as soon as possible.
* **SIT-33-13:** Confirmation is required from Pascal Lecomte (ESA) and CEOS SEC that Pascal alone will represent CEOS on the GEO-C Steering Committee.

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| **237-01** | Pascal Lecomte (ESA) and CEOS SEC to confirm that Pascal alone will represent CEOS on the GEO-C Steering Committee. | **SEC-238** |

* The 2018 CEOS SIT Technical Workshop will be held 12–14 September 2018 in Darmstadt, Germany. A save the date was sent on 10 May 2018. Meeting registrations are due by 24 August (online registration is now open [here](http://ceos.org/meetings/2018-sit-technical-workshop/); accommodation room blocks will expire 31 July or 10 August, depending on hotel). Please refer to the [logistics package](http://ceos.org/document_management/Meetings/SIT-Technical-Workshop/2018-SIT-Tech-Workshop/CEOS%20SIT%202018%20TWS%20Logistics%20Information.pdf).
* VC/WG/AHT Teleconferences with the SIT Chair: It is proposed to include AHT representatives in the SIT Chair teleconferences. A format change is also proposed: five thematic teleconferences of about 90 minutes in length (as below). Feedback was requested from CEOS SEC.
  1. Ocean VCs
  2. WGCapD/WGDisasters/SDG-AHT
  3. AC-VC/P-VC/WGClimate
  4. WGISS/WGCV
  5. LSI-VC/SDCG/GEOGLAM/FDA-AHT

Michael Berger (COM, CEOS Chair Team) asked whether he can attend the teleconferences, and Kerry confirmed that all are welcome. Astrid supported the thematic groupings. Kerry confirmed that the teleconferences are planned for the weeks of 23 and 30 July.

1. **GEO SEC Report**

Akiko Noda (GEO SEC) reported:

* The GEO Secretariat released a call for expression of interest in Exhibition and Side Events at GEO Week 2018 (29 October to 2 November in Kyoto, Japan). The submission deadline is 15 June.
* The 3rd GEO Data Providers Workshop (2-4 May 2018 at ESA in Frascati, Italy): About 200 data providers and users came together to share knowledge and best practices in the management and use of EO data and to discuss enhancements to the GEOSS platform. The number of participants was nearly twice as many as last year.
* The new GEO Secretariat Director, Gilberto Camara, will arrive at the office on June 4.

1. **Working Group Reports**

**WGDisasters**

Simona Zoffoli (ASI, WGDisasters Chair) reported:

* Two side events were held by WGDisasters at the World Bank organised *2018 Understanding Risk Forum*, Mexico City, May 14-18. WGDisasters highlighted the value of pilot project outcomes using CEOS data, as well as research and regional initiatives. The Forum was attended by over 1000 participants, and is together with the UNISDR *Global Platform for Risk Reduction* one of the premier risk-related events in the international risk reduction community.
* CEOS agencies are providing data under the framework of the Geohazard Supersites and Natural Laboratories (GSNL) to help understand the development of the current eruptive activity and possible future outcomes of the Kilauea volcano in Hawaii.
* The 10th CEOS WGDisasters meeting will be hosted by the National Institute of Geophysics and Volcanology (INGV) in Naples, Italy, September 2018, colocated with the *City on Volcanoes 10* conference.

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* The ECV Inventory Gap Analysis Report and WGClimate Coordinated Action Plan have been endorsed. The same documents are being submitted to CGMS for endorsement at its June 3-8, 2018 plenary (CGMS-46).
* The Space Agency Response to the GCOS Implementation Plan (GCOS IP) has not yet been formally endorsed, however the document has been sent.
* CMA (China) is evaluating if they can hold WGClimate-10 in January/February 2019.
* **SIT-33-04** regarding the CEOS delegation to COP-24 and the process for ensuring a national delegate from Vietnam can introduce the CEOS material will be addressed in the June timeframe. Linh Phan (VNSC/VAST) asked that this action be followed up as soon as possible, citing visa time constraints.
* Monthly teleconferences have been implemented within WGClimate, and discussion of the Coordinated Action Plan implementation will occur in a general teleconference, likely in June. Christine Bognar (NASA) asked if information would be emailed in advance for subject matter experts who cannot participate in the telecon to offer feedback. WGClimate Chair, Jörg Schultz, said ‘yes.’

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| **237-02** | WGClimate Chair to follow up SIT-33-04 with VNSC ASAP due to visa requirements. | **ASAP** |
| **237-03** | WGClimate Chair to share a summary of the Coordinated Action Plan implementation teleconference. | **After the teleconference** |

**WGISS**

Mirko Albani (ESA, WGISS Chair) reported:

* The 2018-2020 CEOS Work Plan was presented and discussed during a dedicated session at WGISS-45. The draft WGISS 2018-2020 internal Work Plan was presented and reviewed, and is now under finalisation.
* A joint session with WGCV was held at WGISS-45, focused on four major topics: data formats and interoperability in the framework of FDA, quality indicators in discovery metadata, CEOS Data Cubes and CEOS test site data access in support of WGCV activities, standardisation, and best practices. Progress will be discussed during periodic teleconferences (next planned in June).
* WGClimate ECV Inventory version 2.0 dataset registration in the IDN is progressing.
* A letter of invitation has been sent to the National Remote Sensing Center of China regarding making ChinaGEOSS DSNet a member of the WGISS Connected Data Assets.
* WGISS FDA Workshop: about 20 FDA elements had dedicated presentations, and active discussion sessions contributed to a successful FDA workshop during WGISS-45.
* Dedicated sessions were held at WGISS-45 on user metrics, open source software, user authentication and identity management – addressing the CEOS Work Plan FDA actions assigned to WGISS.
* Carbon Portal development activities are progressing in coordination with the CEOS Carbon Team. A teleconference was held yesterday, and beta testing is likely to start by mid-June.

**WGCapD**

Nancy Searby (NASA, WGCapD Vice Chair) reported:

* WGCapD is still working to find a replacement for the WGCapD Secretariat support initially provided by INPE after the current representative, Hilcea Ferreira, retired.
* WGCapD is finalising the training plan for the AfriGEOSS Symposium (22 – 29 June 2018, Libreville, Gabon; hosted by AGEOS). Training contributors include ESA, NASA, and UKSA. The focus is on water, agriculture, disasters, and ecosystems.
* Nancy will be at the GEO Symposium next month, and she will be looking for opportunities to synergise CEOS and GEO capacity building activities.
* WGCapD-8 will be hosted by ISRO, and the date will be finalised at the next team teleconference.

**WGCV**

Kurt Thome (NASA, WGCV Chair) reported:

* WGCV-43 was held April 10-13, and was very successful. Action items arising are under progress and will be discussed in the next WGCV teleconference, which will be held on May 31, 2018.
* WGCV-43 approved the recommendation of the IVOS RadCalNet Admission Panel that four test sites (Baotou, China; Gobabeb, Namibia; La Crau, France; and the NASA-supported Railroad Valley, USA) be admitted to RadCalNet. The recommendation also approved the opening of the RadCalNet website to the public (addresses **CV-09**).
* WGCV-43 accepted the proposed solar irradiance spectrum, and the report will be made available on the Cal/Val web portal (addresses **CV-16**).

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* Registrations for the GEO exhibition and side events are due by June 15. The GEO-XV Plenary is planned for October 29 to November 2 in Kyoto, Japan. The SEO would like to coordinate a CEOS exhibition and Open Data Cube side event, as done in 2017.
* After years of experience, we have found that a CEOS booth at GEO does not have great impact, as most of the attendees are aware of CEOS and know the organisation well. Brian suggested that CEOS might instead focus the booth on new or relevant topics, such as Analysis Ready Data (ARD), the Open Data Cube (ODC) or Sustainable Development Goals (SDGs) for greater impact.

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| **237-04** | CEOS SEC to consider topics and materials for the CEOS exhibition booth at GEO-XV Plenary, and to inform Brian Killough of any ideas. | **SEC-238** |
| **237-05** | CEOS SEC to consider possible support for the CEOS exhibition booth at GEO-XV Plenary and follow up with Brian Killough. | **SEC-238** |
| **237-06** | Brian to confirm the expected cost for the GEO-XV exhibition booth. | **ASAP** |

* Astrid supported the idea of focusing on specific topics for the booth. She noted that the topic should be interesting to the GEO community, and suggested that SDGs could be a good candidate.
* The SEO will be hosting five summer students as part of NASA's DEVELOP project from June 4 to August 10. They will be working on the Open Data Cube with a team from Colombia. The project will focus on deforestation detection and a land classification workflow.
* The new Africa Regional Data Cube (ARDC) was launched in Nairobi, Kenya, May 9 to 11. Feedback and lessons from the training are being compiled, and a good set of materials is now available. The ARDC is expected to address a number of issues in these countries including the detection of illegal mining and deforestation, urbanisation growth, flood and drought risk, coastal erosion, and agriculture productivity.
* Brian Killough and Andrew Cherry (AMA programmer) attended the Swiss Data Cube "Hackathon" event, April 11 to 13 in Geneva. The primary output of the event was a new Python algorithm for water quality and refinements to the Swiss snow algorithm.

1. **SDCG/GFOI Report**

Osamu Ochiai (JAXA, CEOS Lead for GFOI) reported:

* GFOI has started its ‘Phase 2’ activities, where the main challenge is now implementing the GFOI Data Component.
* Key sections from the three-year work plan for GFOI as developed by the Space Data Coordination Group have been circulated for CEOS SEC review.
* The Work Plan will be finalised at the SIT Technical Workshop in September, including any adjustments from the GFOI Data Component meeting in Tokyo, July 2 to 3.

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| **237-07** | CEOS SEC to provide any feedback on the key sections from the CEOS 3 Year Work Plan for GFOI (circulated with the written reports for CEOS SEC-237). | **13 June** |

1. **AOB**

**Analysis-Ready Data**

Matt Steventon (CEOS Chair Team) reported:

* There has been increased activity in Analysis-Ready Data commercially – notably by Planet and PCI Geomatics, e.g.:
  + [PCI Geomatics webinar](https://youtu.be/fhVh5Us1PBI)
  + [Planet Analysis Ready Data Interoperability workshop](https://medium.com/@cholmes/join-us-in-august-for-an-analysis-ready-data-interoperability-workshop-ec0d0499003e)
  + [Analysis Ready Data Defined](https://medium.com/planet-stories/analysis-ready-data-defined-5694f6f48815)
* CEOS has also recognised the need for significant simplification of data handling and uptake by users, and the changing expectations of a much-broadened user community. LSI-VC has spearheaded CEOS action in this area with [CEOS Analysis-Ready Data for Land (CARD4L)](http://ceos.org/ard/) and its [Product Family Specifications](http://ceos.org/ard/#slide3).
* LSI-VC is staying on top of developments in the broader community and engaging with these outside efforts to promote the CARD4L framework. LSI-VC calls on CEOS SEC and CEOS Agencies to continue to be aware of such activities and inform LSI-VC.
* A coordinated CEOS approach is required to avoid divergent efforts and duplication of work, and ensure CEOS agency representation.
* LSI-VC has started a broader CEOS strategy document and will consult on this in future. An ARD stocktake and availability outlook exercise has also been initiated.

Michael Berger (CEOS Chair Team) noted that there is a lot of hype around ARD, which is basically a different word for what was called higher-level data (L-2, L-3, L-4) previously. However, changing the name is not solving the issues related to data consistency. He observes an unbalanced pace in addressing these issues and in raising the expectation of ARD within user communities. Therefore, he proposes that CEOS focus on lower-level ARD (such as Surface Reflectance, SAR Backscatter and Surface Brightness Temperature) and their harmonisation (similar to what is done for the L8-S2 harmonised surface reflectance products) favouring the development of consistent higher-level ARDs derived from it.

**SEC Teleconference Reporting**

The CEOS Chair Team revisited the issue of reporting to SEC monthly teleconferences. The issue of *Ad-hoc* Team reports discussed at SEC-235 raises the opportunity for a more comprehensive discussion and to put in place more consistent processes across all subsidiary groups.

CEOS SEC was asked to consider whether reporting of all groups (Working Groups, Virtual Constellations, and *Ad-hoc* Teams) can be invited to SEC teleconferences on an as-needed basis – with written or verbal inputs provided as circumstances and developments require. This could be supplemented with the stipulation that each group should provide at least one written or verbal input every quarter.

Christine Bognar (NASA) observed that the CEOS Working Groups are a different case and referred to the CEOS Guiding Documents. Unlike the Ad hoc Teams, the work of the WGs is cross-cutting and impacts other technical groups, all of which are advancing implementation of the full range of CEOS activities and deliverables. She added that any decision to stop WG monthly reporting to the Secretariat would need to be decided, not by the Secretariat, but by the CEOS community at a Principals level meeting.

Astrid stated that we will be sticking with the as-needed AHT reporting as agreed at SEC-235, but not extending any changes to WG and VC reporting. This item is closed as agreed at SEC-235.

**Space Climate Observatory (SCO)**

Mauro Facchini (COM, CEOS Chair Team) reported that Philippe Brunet (COM, CEOS Chair) received a letter from CNES regarding the SCO initiative and identification of a CEOS point of contact. A response is being prepared by the CEOS and SIT Chair Teams along the lines agreed at SIT-33. The CEOS contact point on SCO will be Jörg Schulz (EUMETSAT, WGClimate Chair). Further discussion on the SCO will take place at SIT Technical Workshop and CEOS Plenary.

**OGC EO Exploitation Platform DWG Charter**

Matt Steventon (CEOS Chair Team) reported:

* The CEOS Chair Team recently became aware of the Open Geospatial Consortium’s EO Exploitation Platform Working Group.
* The Working Group is proposed in order to foster interoperability among EO exploitation platforms and their components. A detailed description is available here: <http://www.opengeospatial.org/pressroom/pressreleases/2792>
* The FDA-AHT and WGISS have been notified and encouraged to be involved to ensure CEOS is well represented.
* CEOS Agency representatives have been present in the formative stages (Cristiano Lopes, ESA; Don Sullivan, NASA; Jeff de La Beaujardiere, NOAA; Andrew Hicks and Andreia Siqueira, Geoscience Australia).
* The CEOS Chair Team wonders if a more coordinated CEOS strategy for engagement with this WG is needed.
* CEOS SEC should keep a watching brief on developments of this WG and OGC in general in the FDA context.

Steven Hosford (ESA/CNES, CEO) will keep in contact with the various CEOS Agency representatives to this group and will ensure CEOS and SEC remain informed.

1. **Next Meeting and Adjourn**

Astrid-Christina Koch (COM, CEOS Chair Team) thanked everyone for attending and adjourned the meeting. CEOS SEC-238 will take place on Thursday June 28.