**Minutes V1.0**

**298th CEOS SECRETARIAT MEETING**

Thursday 13 October 2022

Chaired by CNES

**Participants**

**AC-VC:** Ben Veihelmann, Hiroshi Tanimoto

**CEO:** –

**CNES:** Olivier Marsal, Aurélien Sacotte, Matt Steventon

**CSA:** Marie-Josée Bourassa

**EUMETSAT:** –

**ESA SIT Chair Team:** Ivan Petiteville, Stephen Briggs, Stephen Ward

**ESA:** Ben Veihelmann

**GISTDA:** Nuttavipa Thanthawewut, Atipat Wattanuntachai, Warinthorn Evans

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

**NASA:** Christine Bognar

**NOAA:** Charles Wooldridge, Katy Matthews

**SEO:** Brian Killough, Dave Borges

**WGCapD:** Jorge Del Rio Vera

**WGClimate:**  Albrecht von Bargen

**WGCV:**  Akihiko Kuze, Philippe Goryl

**WGDisasters:** Helene de Boissezon, Laura Frulla

**WGISS:** Makoto Natsuisaka, Tom Sohre

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

Olivier Marsal (CNES, CEOS Chair Team) welcomed and thanked everyone for attending SEC-298, which is a key opportunity to follow up SIT Technical Workshop and to prepare for the CEOS Plenary.

CEOS Executive Officer, Marie-Claire Greening, was unable to join and sent apologies and a written report in advance.

Two Working Group reports were heard early, due to the availability of the Chairs.

**WGCV**

Akihiko Kuze (JAXA, WGCV Chair) reported:

* WGCV-51 was held last week in Tokyo. There was also a joint session with WGISS.
* Cody Anderson (USGS) was approved as the next Vice Chair of WGCV. The nomination will be presented to the CEOS Plenary for final endorsement by CEOS Principals.
* WGCV will also present updated Terms of Reference for endorsement by CEOS Principals. Changes to WGCV voting procedures were needed to reflect the new reality of hybrid meetings.
* Jean-Christopher Lambert (BIRA-IASB) was approved as the next Chair of the Atmospheric Composition Subgroup.

**WGClimate**

Albrecht von Bargen (DLR, WGClimate Chair) reported:

* A Greenhouse Gas Task Team meeting was held today. There will be a transition to the new lead, Yasjka Meijer of ESA, shortly.
* Currently preparing the hybrid WGClimate-17 meeting that will be held next week, after the GCOS Science conference.
* As WGClimate Chair, Albrecht reported to the recent WGCV and WGDisasters meetings to explore collaboration opportunities.
* At COP27 (Nov. 6-18; Sharm El-Sheikh, Egypt), in-person attendance is required for any presentation, be it a talk or a poster. Albrecht and ESA staff will be attending in person and will have the opportunity to present. Final coordination of inputs will take place next week at the WGClimate-17 meeting.
* Earth Information Day will have a focus on Parties and their implementation efforts.
* Finalising the CEOS-CGMS annual statement to UNFCCC SBSTA following receipt of some final feedback from agencies. Albrecht will share the final version with the CEOS SEC over the weekend.

1. **Action Review**

All open Actions were covered under their respective agenda items below.

1. **CEOS Chair Report**

Olivier Marsal (CNES, CEOS Chair Team) reported:

293-01: CEOS Chair Team to draft a concept note for the discussion planned for SIT Technical Workshop on CEOS evolution, resourcing, organisation limits, etc.

* This action was originally raised in the context of continuity of the CEOS Executive Officer role. Some had suggested a broader analysis of CEOS leadership roles, interfaces, breakdown of responsibilities, etc.
* A subsequent decision was made to only focus on the CEO role and to put the broader idea on hold.
* We have made good progress on the CEO continuity point, so the question now is whether the SEC wishes to return to this broader investigation. The current CEOS Chair will not have capacity during the final month of its term, so responsibility would have to be taken up by another agency.
* The opinion of the current CEOS Chair team is that we don't need to go down this route; the current governing documents are clear but also sufficiently flexible. It was suggested that whenever there is a new agency taking on a leadership role, there could be a discussion of CEOS leadership to confirm responsibilities.
* The CEOS Chair proposes to close this action.

Chuck Wooldridge (NOAA) agreed with the proposal to close the action. He suggested that the report to CEOS Plenary on the CEO resolution could include a statement regarding this consideration of the broader context and framing those resolutions in this way.

Christine Bognar (NASA) agreed with the proposal to close the action and supported the suggestion by Chuck on reporting to the CEOS Plenary.

ESA, JAXA, and GISTDA also agreed to close the action.

CEOS Executive Officer (CEO) Continuity

* The permanent CEOS SEC agencies have discussed the matter and made good progress, particularly in their side meeting at SIT Technical Workshop. They agreed on a plan that will be presented to Principals at the CEOS Plenary, as follows:
  + No changes are needed at this time for the Terms of Reference of the CEO.
  + There is an intention by the five permanent CEOS SEC agencies to ensure continuity for this role in the long term, via a rotation of responsibility. One of the agencies will be responsible for providing a solution, be it an internal staff member or contractor, while at the same time welcoming other CEOS Agencies to volunteer at any time.
  + Following this recent period that has been funded by NASA (2021-2022) and NASA and NOAA (2023), EUMETSAT will consider a solution and are seeking support from other European CEOS agencies. ESA will then follow.
* Olivier thanked NASA and NOAA for funding a one-year extension to the existing contract.

Christine Bognar (NASA) thanked everyone involved in constructing this cooperative solution. She suggested that during the plenary, it should be emphasised that this is a participative solution made possible by the contributions of multiple agencies. Framing the problem and the solution in this context is consistent with the message we are trying to give to the CEOS community. It is that all of CEOS collectively shares the responsibility for ensuring the long-term continuity of the role, just as it collectively shares the benefits the position brings to the organization. ​​Christine also thanked NOAA for partnering with NASA to cover the cost of the CEO in 2023.

CEOS Plenary

* Reported current registration numbers and noted that the draft agenda has been shared with SEC for an initial look before it is shared with the rest of CEOS early next week.
* Reviewed the overall structure of the Plenary agenda.
* Reminder for registrations, side meetings and hotel bookings.

Christine Bognar (NASA) suggested that the agenda clearly indicate which items are for decision and which are for discussion. This is especially helpful for CEOS principals, some of whom don’t have year-round engagement in CEOS.

1. **SIT Chair Report**

Ivan Petiteville (ESA, SIT Chair Team) reported:

* New Space: Agreed at SIT Technical Workshop to establish a New Space Task Team. Terms of Reference have been drafted. CEOS Plenary endorsement will be sought. The Terms of Reference will be shared with SEC next week for review.
* AFOLU Roadmap: A dedicated meeting was held the day before SIT Technical Workshop. Ben Poulter of NASA has volunteered to serve as the lead of the AFOLU Roadmap cooperation. All agencies that can provide relevant observations are encouraged to be involved in defining the Roadmap.
* Global Stocktake (GST) Portal: The SIT Chair Team is currently updating the [CEOS GST Portal](https://ceos.org/gst/). Dataset profiles are being updated and a new section on user stories and inspiration is being added. GEOGLAM and SilvaCarbon have provided user stories so far. All content will continue to be available in English, French and Spanish.
* CEOS-ARD: LSI-VC-12 was held the week before SIT Technical Workshop. The new Ocean Radar Backscatter (ORB) and Nighttime Lights Surface Radiance (NLSR) PFS were endorsed following the meeting. Representatives from the CEOS-ARD Oversight Group joined the recent OGC ARD Standards Working Group meeting. CEOS has been asked to provide input on the Charter for this group and an ISO New Work Item Proposal (NWIP). This work is proposed to use CEOS-ARD as the basis, so it is critical that CEOS is engaged. Additional CEOS representatives are requested.
* SIT-38: SIT-38 will be held at ESA ESRIN (Frascati, Italy) in the week of 27 March, 2023. Tuesday the 28th of March will be assigned to side meetings and 29-30 March will be the main days for SIT-38.

**Biodiversity**

Marie-Josée Bourassa (CSA) reported:

* Following SIT Technical Workshop, Terms of Reference for an Ecosystem Extent Task Team have been progressing. A two-year timeline is the initial proposal, and the first task will be to write a white paper on the topic.
* GEO Week 2022 in Ghana: Organisers have reached out to have CEOS input to the GEO Plenary on biodiversity. It is important that CEOS participates and Marie-Josée will be following up with Laurent Durieux (GEO SEC).
* CEOS will be represented at the GEO Wetlands side events of Ramsar COP14 (5-13 November).
* COP27: Biodiversity is not part of the activities, but it would be good to think about next year’s COP and to consider whether CEOS’ climate work could be combined with biodiversity.
* A joint SDG-GEO workshop (virtual) will be held in the same week as CEOS Plenary. The focus is “EO for Ecosystem Accounting”. There are new standards that need to be understood so that CEOS can provide input. Natural capital accounting is a key element of the biodiversity theme and EO is critical to implementation.
* The week after CEOS Plenary, the 2022 Biodiversity Conference (COP15) will be held in Montreal, Canada. A CEOS-GEO side event has been proposed on “Ecosystem Extent from Space: The Coming Revolution in Biodiversity Monitoring”. If not accepted as an official side event, a backup plan via the Canadian pavilion will be actioned.
* The new Ecosystem Extent Task Team intends to connect all of these (and more) ongoing activities to ensure maximum impact and CEOS coordination.

**AC-VC Report**

Ben Veihelmann (ESA) reported on behalf of the AC-VC Co-Leads (Hiroshi Tanimoto, NIES; Barry Lefer, NASA):

* The [AC-VC-18 annual meeting](https://ceos.org/meetings/ac-vc-18/) was held in March and covered all the priority areas of the VC: Greenhouse Gas, Ozone, Aerosols, Air Quality.
* Supporting WGClimate and the Greenhouse Gas Task Team and the Global Stocktake with the provision of pilot products.
* Publications on country-specific CO2 and CH4 emissions have been released recently.
* Tropospheric Ozone: Working to understand wide distributions and trends across various observation systems and seeking to harmonise. A lot of effort on the tropospheric ozone report. Creation of a database and establishment of a satellite working group. Working on publications on sensitivity profiles.
* Air Quality: Focused on the constellation of TEMPO, GEMS, Sentinel-4, and GEO-XO. WGCV is supporting and planning is ongoing for an infrastructure for validation, building on the Pandora network.
* Since 2017 AC-VC has been working on the “Monitoring Surface PM2.5: An International Constellation Approach to Enhancing the Role of Satellite Observations” white paper. This is a very cross-cutting topic across space, ground, and modeling communities. Identified actions and recommendations along the whole chain of products, assimilation, statistics, and validation. The draft document is [here](https://ceos.org/document_management/Meetings/SIT-Technical-Workshop/2022-SIT-Tech-Workshop/Documents/CEOS%20AC-VC%20White%20Paper%20PM2.5%20Monitoring%20Draft-version-4.1%2026-7-2022.pdf). Looking to submit the final version for Plenary consideration, and it is likely to be ready by the end of the month.

1. **CEOS Executive Officer Report**

The CEOS Executive Officer (CEO), Marie-Claire Greening was unable to join and sent apologies and a written report in advance.

Olivier Marsal (CNES, CEOS Chair Team) noted the CEOS Statement to GEO and suggested any last comments need to be sent to Marie-Claire today, consistent with her recent email. The final version of the statement will be submitted to the GEO Secretariat by the Friday the 14th of October deadline. No further comments were heard during the meeting.

1. **Working Group Reports**

**WGDisasters**

Helene de Boissezon (CNES, WGDisasters Chair) reported:

* The WGDisasters-18 meeting was held in Nice from 3-7 October. An exchange session around risk thematics with approximately 50 students from University Cote d’Azur was held on the first day.
* The main meeting took place over 4-6 October, with 25 participants in attendance and another 30 people online. As well as presenting substantive updates on activities underway, WGDisasters held in depth discussion around sustainability of WG activities beyond the demonstrator phase (uptake of satellite observations and derived products in proto-operational and operational public good activities and transition to commercial activities for some areas) and new activities to be considered by the group (including possible ocean-related activities and climate related activities).
* Presentations were also made by leaders of WGCapD, WGISS and WGClimate, and joint activities were discussed.
* On 7 October, a site visit was made to the Vesubie valley to examine flash flood and landslide sites affected by a major storm in October 2020 and to discuss integration of satellite products with French civil protection and for resilient reconstruction.
* Presentations from WGDisasters-18 are available [here](https://ceos.org/meetings/wgdisasters-18/).
* IAF Workshop: Helene thanked Jorge Del Rio Vera (UNOOSA, WGCapD Chair) for making a presentation on the Recovery Observatory and the joint activities with WGCapD.
* The Philippine Space Agency has communicated to WGDisasters leadership that it would like to apply for CEOS membership. Helene will share contacts with the CEOS Chair Team for follow up.
* WGDisasters-19 will be held in March 2023 (exact dates TBD) in Buenos Aires at the invitation of CONAE.
* WGDisasters-20 will be held in September 2023 (exact dates TBD) in Yellowstone, USA, at the invitation of USGS (Yellowstone Volcano Observatory).

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| **298-01** | WGDisasters Chair to connect Philippine Space Agency contacts with the CEOS Chair Team so that a dialogue on potential application for CEOS membership can be established. | **SEC-299** |

**WGISS**

A representative from WGISS was not available to report. A written report was provided.

**WGCapD**

Jorge Del Rio Vera (UNOOSA, WGCapD Chair) reported:

* CB-22-02: Webinar on air quality data access and analysis from geostationary satellites will be completed in October. CB-20-07: Best Practice Guide to E-learning remains ongoing. All Q4 2022 Deliverables are in progress.
* One outstanding deliverable from Q2 2022 (Space-based observations for Meteorological Hazards) has been delayed by changes in ISRO leadership.
* The WGCapD annual meeting is likely to take place in Vienna in the first week of March 2023 (exact dates TBD). The meeting will be in a hybrid format.
* Starting the process of identifying a Vice Chair to follow SANSA. All nominations are welcome.

1. **GEO SEC Report**

Laurent Durieux (GEO SEC) was not available. No written report was provided.

1. **SEO Report**

Brian Killough (SEO, NASA) reported:

* The SEO is planning to host a CEOS exhibition booth at the GEO Plenary in Ghana (Oct. 31 to Nov. 4). If CEOS Agencies, WGs or VCs have any desires for material at the booth, please contact the SEO (Brian Killough or Dave Borges).
* The SEO team (Brian, Dave, Libby, Oguz) will travel to GEO in Ghana to support the CEOS exhibition booth and several side meeting sessions. The SEO is leading a session on the ODC Sandbox and will use that session to focus on SDGs and Disasters. The SEO is also participating in sessions on DE Africa, disasters, and post-2025 GEO.
* The SEO (Brian and Dave) will attend the Pecora Conference in Denver, Colorado, USA, on October 24-28. This meeting is co-hosted annually by USGS and NASA and is typically focused on Landsat. The SEO will present material on the ODC Sandbox and the recent efforts on Nighttime Lights Surface Radiance ARD.
* The SEO (Brian and Dave) attended the SatSummit conference in Washington, D.C., on Sept. 28-29. This meeting highlighted some of the latest satellite and data technologies. There were a few high-level takeaways that were captured by the SEO. The future is forecasting, we need to confirm what we see from space (*in situ* data needed), and ARD, STAC and ODC are the tools of the future. This was essentially a meeting of ‘New Space’. The SEO has proposed a briefing on SatSummit at a future CEOS meeting as part of the New Space SIT Chair priority.
* The SEO (Brian) traveled to Mexico to meet with INEGI, CSIRO, and GEO about future plans for Digital Earth Americas. We agreed to develop a 5-page strategy in the coming months. The initial goals/themes include inspiring community engagement, enabling economic growth, and measuring social impact of a changing world. In addition, Mexico is funding a new project in Trinidad and Tobago (University of the West Indies) that will likely become an excellent prototype for the DE Americas initiative.
* The SEO (Dave) attended the WGDisasters-18 meeting in Nice, France on Oct 4-7. During the WGDisasters meeting, CNES (Linda Tomasini) gave a presentation highlighting the progress and future direction of the Space Climate Observatory (SCO) which includes a focus on addressing the SDGs. There was agreement to further discuss opportunities between SCO efforts supporting WGDisasters and alignment with CEOS SDG Coordination Group objectives. Sendai Framework Targets and Sustainable Development Goals have intentional overlap. Capturing CEOS efforts in this shared space may prove mutually beneficial.

Olivier Marsal (CNES, CEOS Chair Team) noted the CNES CEOS Chair priority of better connecting CEOS efforts and the SCO.

1. **Next Meeting and Adjournment**

Olivier Marsal (CNES, CEOS Chair Team) thanked everyone for participating. SEC-299 will be held on November 10, 2022 at 7 AM US East.