**Minutes V1.0**

**284th CEOS SECRETARIAT MEETING**

Thursday 14 October 2021

Chaired by NASA

**Participants**

**CEO:** Marie-Claire Greening

**CNES:** Selma Cherchali, Aurélien Sacotte, Edouard Lallouette

**ESA:** Ivan Petiteville, Stephen Briggs

**EUMETSAT:** Robert Husband

**GEO Secretariat:** Doug Cripe

**ISRO:** Raj Kumar

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

**NASA:** Karen St. Germain, Sandra Cauffman, Christine Bognar, Andy Mitchell, Stephen Ward, Matt Steventon

**NOAA:** Kerry Sawyer

**SEO:** Brian Killough

**SIT Chair Team:** Alex Held, Adam Lewis, Jonathon Ross, Flora Kerblat

**UKSA:** Beth Greenaway
**WGCapD:** Nancy Searby, Lauren Childs-Gleason

**WGClimate:** Albrecht von Bargen

**WGCV:**  Akihiko Kuze

**WGDisasters:** David Green, Dave Borges

**WGISS:** Robert Woodcock, Makoto Natsuisaka

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

Karen St. Germain (NASA, CEOS Chair) welcomed everyone to SEC-284. Karen noted that the draft CEOS Plenary agenda was distributed for comment by October 18. She thanked CEOS colleagues for their support as the Chair team coordinated across CEOS to develop the Plenary agenda. The deadline for comments is Monday, Oct. 18, after which time the team will finalise and distribute the agenda.

Karen noted that the CEOS Chair team will begin coordinating with CNES on the transition to the Chair role, and that the CSIRO-GA are already coordinating with ESA on the transition to the two-year SIT Chair role.

Karen welcomed Beth Greenaway who joined SEC-284 in representation of UKSA to offer an update on COP26 planning and recent developments (Glasgow, Nov. 1-12).

Karen thanked everyone who provided a written report for SEC-284, noting that the information these reports provide is useful before and after SEC meetings.

Karen noted her upcoming travel to the International Astronautical Congress (IAC) in Dubai, where she has been invited as keynote speaker in her role as CEOS Chair. She thanked Marie-Claire Greening (CEO) for her support preparing the CEOS presentation.

There were no additions to the agenda, which was accepted as distributed.

1. **Action Review**

Christine Bognar (NASA, CEOS Chair Team) opened to the floor for status updates on the action record (circulated as part of the agenda for this meeting). No action updates were raised.

1. **CEOS Chair Report**

Christine Bognar (NASA, CEOS Chair Team) reported on the following topics:

Applications for CEOS Associate

* Thanks to Marie-Claire Greening (CEO) for coordinating with Portugal Space and the European Centre for Medium-Range Weather Forecasts (ECMWF) on their participation at the CEOS Plenary.

Incoming CEOS Chair (CNES) and Nomination for 2023 CEOS Chair (GISTDA)

* Thanks to Marie-Claire for coordinating with CNES and GISTDA on their participation at the CEOS Plenary.

CEOS Plenary (Nov. 1-4)

* The start time for the Plenary, for various time zones is as follows. The start time will vary between days. As noted in the Secretariat meetings and in the “save the date” message to the CEOS community sent on August 10, for well over a year, many CEOS colleagues across the world have endured hardships to both lead and participate in CEOS meetings. This is an effort to make the schedule burden more equitable.



* The CEOS Plenary Agenda is built around four sessions: CEOS Core Business; CEOS Support for Key Stakeholders and Global Agendas; Partnering with Purpose for Open Science and Decision Support; CEOS Leadership Transitions and Closing Business.
* The draft Plenary agenda was distributed to the CEOS community on October 13 for comment by the end of the evening on Monday, October 18 in the Eastern U.S. time zone. A new presentation template was posted on the CEOS Plenary web page yesterday. The final agenda and a meeting protocol document will be posted on the CEOS Plenary web page next week.
* The CEOS Chair team has already posted on the CEOS Plenary web page many of the documents for CEOS Plenary endorsement, documents for information/reference, and the nominations for CEOS Plenary endorsement.

Statements

* SBSTA: Thanks to Albrecht von Bargen (DLR, WGClimate Chair) and Jeff Privette (NOAA, WGClimate Vice Chair) for an excellent draft SBSTA Statement, which is nearly finalized. The U.S. State Department point of contact has reconfirmed to the CEOS Chair team that a member of the U.S. delegation will read the final version of the statement during the SBSTA meeting.
* GEO Week: Thanks to Marie-Claire for submitting the CEOS Statement for GEO Week to the appropriate contact at GEO.

WGCapD

* As was reported on Sept. 23, the CEOS Chair sent a letter to Andiswa Mlisa, CEOS Principal from SANSA, to encourage the agency to consider a nomination for WGCapD Vice Chair for two years and WGCapD Chair for two years. Christine noted that Nancy Searby (NASA, WGCapD Chair) would mention this during her SEC report.

Upcoming Meetings

* The 2nd Climate Observations Conference of CGMS and WCRP has been moved to 2022.
* IAC (Oct. 25-29; Dubai): The CEOS Chair has been invited to give a presentation on “Earth Observation International Cooperation” during Session B1.1. on Monday, Oct. 25. The segment consists of 30 minutes (presentation and Q & A). The presentation is under review. Thanks to Marie-Claire for carefully reviewing what has been done in past years to inform and develop this year’s presentation for the CEOS Chair, Karen St. Germain.
* COP26 (Nov. 1-12; Glasgow): As noted above, the CEOS Chair team contacted the U.S. Department of State regarding the Annual Joint Statement from Space Agencies to SBSTA. Last week, they confirmed that a member of the U.S. Delegation will deliver the Joint Statement.

Adam Lewis (GA, SIT Co-Chair) asked if the IAC presentation could be shared with the CEOS SEC in advance of the meeting. Christine agreed to share it with CEOS SEC. Karen supported this suggestion.

Brian Killough (SEO, NASA) suggested making the presentation a news item on the CEOS website/Twitter to increase its reach.

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| **284-01** | CEOS Chair Team to share the IAC presentation with the CEOS community before it is presented and make the presentation a news item on the CEOS website/Twitter. | **Oct. 23** |

1. **COP26 Update from UKSA**

Beth Greenaway (UKSA) reported on some of the events scheduled at COP26, which are separated into three platforms:

* The **Blue Zone** is for official country delegations, and where negotiations will happen. The events are separated into themed days. Of importance to CEOS is Earth Information Day on November 3. This includes the official UNFCCC session, as well as a session from 3:15-5:45 local time in Glasgow, for “UK Presidency Perspectives on Earth Information Day”. This will be a panel discussion about the future of Earth observation to meet the Paris (and hopefully Glasgow) Agreement, and how we should be taking action for climate. UKSA is hoping to extend invitations to NASA and CNES for participation in this panel discussion. A brief discussion ensued during which it was noted that for the U.S., the Department of State determines who is on the U.S. delegation, and that for COP26 this year, NASA’s participation will be mainly virtual rather than on location.
* The **Green Zone** is open to the public and the ticket ballot has now opened. They are expecting an attendance of around 3,000 people per day, and it is to be held in the Glasgow Science Museum. UKSA, partnered with ESA, has a stand, where they will be running a series of digital information around what Earth observation does for the climate agenda. This is a collaboration from industry, scientists, and government, in a ‘Space for Climate’ branded site. Other events include astronauts visiting, and the ‘pufferfish’ – a globe touch table where you can dive into core datasets.
* The **Virtual UK Pavilion** will also be running online events each day, for those who cannot be in Glasgow in person. There will be several events of interest to CEOS on this platform, including on November 2, when Beth will be speaking about the Greenhouse Gas Report that CEOS has been preparing, and on November 10, an event called “In Space We Trust”.

UKSA is keen to make the most of the events, and make sure Earth observations are central to the meeting. A big theme of the UK presidency is to celebrate working together. UKSA looks forward to celebrating their partnerships with CEOS, GEO, etc.

Albrecht von Bargen (DLR, WGClimate Chair) asked where one could find the program of the UK part of Earth Information Day, and if Beth could send it to the CEOS community. Beth noted that it is still in draft form, and agreed to send it to the SEC once available.

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| **284-02** | Beth Greenaway to send the program for the UK part of the Earth Information Day at COP26 to the SEC once available. | **Oct. 25** |

Beth asked which CEOS colleagues will be physically in Glasgow, noting that the Blue Zone events will only be for those physically in the room. Christine Bognar (NASA, CEOS Chair Team) noted that U.S. agencies must be invited by the U.S. Department of State to be part of the U.S. Delegation, and have credentials to access the room.

Christine noted that NASA will have a presence at COP26, but it may not be anyone related to CEOS. CEOS colleagues will participate virtually where possible.

Karen St. Germain (NASA, CEOS Chair) furthered Christine’s comments, noting that NASA colleagues will largely participate virtually, as they are not part of the U.S. Delegation.

Nancy Searby (NASA, WGCapD Chair) added that NASA is leading a SERVIR side session, and USAID is joining. This will be a hybrid event in the U.S. Pavilion, and the USA Climate Change Coordinator will be attending live. Currently, only two NASA colleagues are planning to attend in person (contractors to run the ‘hyperwall’).

Selma Cherchali (CNES) noted that the signature of the International Charter on the Space Climate Observatory (SCO) will happen in the Blue Zone. If any members are interested, Selma can share some information on that event.

David Green (NASA, WGDisasters Chair) asked whether there is an overarching statement from CEOS regarding the COP26 goals. These being: adaptation to protect communities; and finalising national action plans (with EO data). Beth responded that the goals for COP include ‘leveling up’, leaving no one behind, indigenous populations, gender balance, and youth. These are the messages covered in the themed days and reflected in the Green Zone stand. Selma added that the SCO is tackling the adaptation challenges of climate change at national and local levels. The International Charter will be one of the events for that purpose at COP26. This will be a good opportunity to share, at CEOS level (linked with the CDR use case request from WGClimate), some key use cases developed within SCO projects.

Beth suggested that in addition to the formal statement to SBSTA, it would be good to have a more public CEOS statement covering what CEOS is doing for climate. There was some discussion around whether CEOS can make statements to various UNFCCC meetings, however Beth clarified that she was only requesting a few sentences (which could perhaps be taken from the official Joint CEOS-CGMS Statement to SBSTA) to use as media releases, Tweets, etc. She was not suggesting any sort of formal statement to COP negotiations, but rather, for other avenues of informal media sharing.

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| **284-03** | Albrecht von Bargen and Stephen Briggs to agree which sentences should be reused from the Joint CEOS-CGMS Statement to SBSTA for general communication purposes and to pass these to Beth Greenaway of UKSA for COP26-related media activities. | **Completed** |

1. **SIT Chair Report**

Alex Held (CSIRO, SIT Co-Chair) reported:

* In relation to SEC Action **283-02** (WMO Data Policy): The SIT Chair Team understands that the new policy was due to be adopted by WMO on October 13 (i.e., the day before CEOS SEC-284). The CEOS Chair and SIT Chair are discussing how to engage the CEOS community on what this means and what CEOS may wish to do (if anything). The CSIRO-GA SIT Chair Team will be looking to engage the incoming CEOS Chair (CNES) and SIT Chair (ESA) as this is a matter that will take time to think through and it will require engagement across the CEOS community.

SIT Chair Handover

* The CSIRO-GA SIT Chair will shortly start the handover process for key responsibilities to the incoming SIT Chair, ESA, including the matter of CEOS representation to the GEO Executive Committee.

Carbon & Biomass

* The full session at the SIT Technical Workshop was most productive. Our guest speakers from the International Methane Emissions Observatory (IMEO) generated significant interest. The SIT Chair Team will follow up with UNEP and GHGSat and pass the baton to ESA as the incoming SIT Chair Team to take forward.
* Prototype products for both GHG and AFOLU have been readied for COP26. The SIT Chair Team has been working with the product teams to develop a CEOS data portal for the GST as a one-stop platform for countries seeking EO data in support of their reporting. This will be available in English, French and Spanish in time for COP26.
* The Draft CEOS Strategy to Support the Global Stocktake of the UNFCCC Paris Agreement was updated, and the actions have been migrated to the CEOS Work Plan with help from ESA and the CEO. This will be on the Plenary agenda for endorsement and the incoming SIT Chair will continue to steward the strategy and implementation of identified actions.

SDGs

* The SDG side meeting and the SIT Technical Workshop session allowed us to hear from the sub-team co-leads about their current work, take stock of the status of deliverables, and to further discuss and agree on the way forward, called the ‘Federated approach’ that will be recommended for approval at the 2021 CEOS Plenary.
* Some actions came out of this: a meeting was held with key CEOS colleagues (including SDG Co-Leads, SEO, CEO, incoming SIT Chair, CEOS Chair) to define the outline and agree on the steps to develop an SDG Strategy Implementation for discussion and decision at the Plenary.
* The document, which includes an executive summary, is being finalised. The aim is to send it to CEOS Principals by the end of next week.
* The SEO and the current SDG-AHT Co-Leads will hold further meetings to prepare for a smooth transition to the new mechanism.

ARD

* We are finalising the CEOS ARD Strategy 2021, CEOS ARD Governance Framework, and template Product Family Specification (PFS) for the 2021 CEOS Plenary. Many thanks to those that have provided feedback so far.
* We continue to welcome nominations for the proposed CEOS ARD Oversight Group.
1. **CEOS Executive Officer Report**

Marie-Claire Greening (CEOS Executive Officer) reported:

* Regarding SEC Action **282-02**: Marie-Claire is compiling a list of CEOS Agency participation to COP26. Marie-Claire will share it with UKSA and Beth Greenaway when completed.

GEO Programme Board (PB)

* A GEO Statement on Open Knowledge was presented to GEO PB members for review and comment (the CEOS SIT Chair designees and the CEOS executive officer sit on the GEO PB; CEOS is a Participating Organisation to the PB). Subsequent to the PB, the statement was amended slightly to take account of some concerns by PB members. This slightly revised version was sent to CEOS SEC for comment on October 7. Comments on this statement are due with the CEO by October 14, or directly to the GEO Secretariat by October 15. Once approved, the statement will be put forward for endorsement by the GEO Executive Committee (the CEOS SIT Chair sits on the GEO ExCom; CEOS is an observer to the GEO ExCom).

CEOS COAST AHT

* The Coastal Product Showcase webinar for the CEOS COAST *Ad Hoc* Team was well attended, and Marie-Claire thanked GEO for hosting. The webinar focused on highlighting the power of EO for coastal issues. Over 300 attendees registered, with approximately 190 participating virtually at one point. This is a great first step for the COAST *Ad Hoc* Team, with a series of subsequent events planned for next year, each with a more regional focus.
1. **Working Group Reports**

**WGDisasters**

David Green (NASA, WGDisasters Chair) reported:

* On CEOS SEC Action **281-02** (*WGDisasters Chair to connect with the CEOS Chair and CEO on the matter of engagement and potential data sharing agreements with entities in the commercial sector*): WGDisasters initially reported on this topic during a previous SEC meeting for general awareness. However, WGDisasters understands that CEOS does not enter into data sharing agreements because it is not a legal entity. WGDisasters Chair has connected with the CEOS Chair and CEO regarding this action, and therefore asks that this action be closed. It was agreed that this action can now be closed.
* David has sent a request to the CEO for an extra term to be added to the GEO Statement on Open Knowledge (regarding the attribute of timely data). Marie-Claire Greening (CEO) will pass this comment on to the GEO Secretariat.

**WGClimate**

Albrecht von Bargen (DLR, WGClimate Chair) reported:

* The Joint CEOS-CGMS SBSTA Statement is now in coordination with the U.S. State Department. It will be submitted to UNFCCC on October 15.
* The 15th meeting of WGClimate was held on October 7-8, 2021 and covered: update of action items; ECV inventory status and gap analysis progress; a proposal for a gap analysis workshop regarding carbon cycle ECVs (encompassing eventually also variables that are not covered by the ECV listing); use case updates (18 use cases currently under review, 7 ready for publication, awaiting other announced use cases); a GHG Task Team meeting report / information about the GEO Climate workshop; AFOLU Roadmap; and COP26 preparation (update on Earth Information Day and other events of interest).
* The GHG Task Team meeting included a progress report and announcement of the GHG-AFOLU workshop (virtual) which will be held on November 12, 15, and 16, 2021.
* Use case web publication: Climate use cases are under review (ongoing). An initial set will be edited for publication on the website implemented by NOAA/NCEI.
* The observation synthesis report for the Global Stocktake will be a community-drafted whitepaper addressing the UNFCCC. Organization of the writing team is now with Frank- Martin Seifert (ESA) and David Crisp (NASA). There has been excellent progress thanks to the coordination effort. The current goal is to have a first draft ready by COP26, and a consolidation for submission by the end of January 2022.

Osamu Ochiai (JAXA) asked about the deadline for the Earth Information Day poster abstract. He is working on the AFOLU one with Frank-Martin. Albrecht will send it to the UNFCCC tomorrow, so the deadline is tonight or tomorrow morning.

**WGISS**

Robert Woodcock (CSIRO, WGISS Chair) reported:

* CEOS Earth Analytics Interoperability Laboratory (EAIL): WGDisasters and the COAST *Ad Hoc* Team will undertake additional training on EAIL usage in early November. The EAIL is now using the USGS Landsat STAC API for its datasets.
* The [WGISS-52 meeting](https://ceos.org/meetings/wgiss-52/) is next week (October 19-21). Highlight topics include enabling Open Science; discovery of services, along with data; data deployments in the cloud; Jupyter Notebook best practices; blockchain and machine learning technology exploration; data quality assessment, indicators, and authenticity on the cloud. Rob noted the meeting is virtual, and invited all CEOS colleagues to attend.

**WGCapD**

Nancy Searby (NASA, WGCapD Chair) reported:

* WGCapD is still seeking a nominee for the WGCapD Vice Chair role. Nancy has received an email from SANSA, noting that they plan to provide a letter of nomination in response to the letter from the CEOS Chair encouraging SANSA to consider taking on this leadership role.
* The Land Cover and Land Use Change MOOC (CB-18-09) deliverable is now closed following the launch of the MOOC on the EO College site at <https://eo-college.org/courses/landinfocus>.
* The WGCapD Work Planning meeting took place on September 8-9, 2021. Members have been encouraged to submit suggestions and find collaborators for the new deliverables for the 2022-2024 CEOS Work Plan in the shared document by November 17.
* The EOTEC DevNet Pilot Initiation Summary report is being finalized for CEOS Plenary review and potential endorsement. If endorsed, EOTEC DevNet will advance to Phase 2 through March 2023.

**WGCV**

Akihiko Kuze (JAXA, WGCV Chair) reported:

* There has been an update to the RadCalNet Guidance document describing a new site acceptance process.
* A vicarious calibration (VCAL) portal for spaceborne GHG sensors is now available at <https://www.eorc.jaxa.jp/GOSAT/GHGs_Vical/index.html>
* WGCV Chair joined the GHG Task Team meeting in advance of WGClimate on October 6.
* Considering nominations for the WGCV Vice Chair (October 2022 to October 2024).
* The joint WGCV and WGISS meeting is being organised. This will be held in Tokyo (hopefully hybrid) from 22-24 March, 2022.
1. **GEO SEC Report**

Doug Cripe (GEO Secretariat) reported:

* The Open Knowledge Statement was discussed by the GEO Programme Board. General support was expressed, with a few minor changes.
* With regard to the GEOSS Infrastructure Development Task Team (GIDTT), the mid-term evaluation started by asking fundamental questions about the nature of GEOSS. The Executive Committee, in conjunction with the Secretariat, will propose that an expert advisory group be formed to examine the concept of GEOSS and how we see it going forward. CEOS members will be invited to join this committee. The work of the GIDTT is on hold for now.
* We are coming to the end of the current GEO Work Programme, with the next plan to be endorsed at GEO Plenary 2022. It will go into effect in 2023 and will take GEO to the end of its current mandate through 2025. Some changes have been proposed pertaining to how the work programme is developed. These include making many components of the work programme interactive and online, changing the nomenclature slightly (e.g., instead of ‘Community Activities’ perhaps name them ‘Pilot Initiatives’), and a proposal for the Programme Board and the Secretariat to scrutinize activities of the work programme more closely.
* The GEO Data Working Group (and subset *In Situ* Data Working Group) produced a strategy document, which takes stock of where we are and what we can do to further uptake of the GEO Data Sharing and Data Management Principles. One key focus is to identify where data sharing has been successful, and how this was achieved. The aim of the document is to show the benefits of in situ data sharing, and then explain best practices and recommended strategies.

Adam Lewis (GA, SIT Co-Chair) asked whether the work on GEOSS will be a major undertaking. Doug responded that GEO is aiming to have something for the Executive Committee to review in March 2022. The review process will be managed within the GEO community, rather than going through consultants. A process document is currently being formed, which will go before the Executive Committee in November 2021.

Christine Bognar (NASA, CEOS Chair Team) noted that there will be an invitation for Yana Gevorgyan, GEO Secretariat Director, to speak at this year’s CEOS Plenary.

1. **SEO Report**

Brian Killough (SEO, NASA) reported:

* Kim Holloway (SEO, NASA) is working on several revisions to the CEOS website, which will be populated in the coming weeks. The team is hoping to have updates posted in time for Plenary.
* The Plenary agenda includes a presentation on communications, with a new CEOS Communications Strategy and CEOS Branding Guidelines, both for endorsement.
* On November 19, 2021, Brian will be giving a keynote speech on Digital Earth Americas to UN-GGIM.
1. **AOB, Next Meeting, and Adjournment**

Sandra Cauffman (NASA, CEOS Chair Team) suggested that nominations for Deputy CEO could perhaps be an agenda item for SEC-285.

**Next Meeting and Adjournment**

Karen St. Germain (NASA, CEOS Chair) and ​​Christine Bognar (NASA, CEOS Chair Team) thanked everyone for participating. CEOS SEC-285 will be held on October 28, 2021. The start time for the teleconference will be 7 AM US East.