**Minutes V1.0**

**318th CEOS SECRETARIAT MEETING**

Thursday 15 February 2024

Chaired by CSA

**Participants**

**COAST *Ad Hoc* Team:** Paul DiGiacomo, Merrie Beth Neely

**CEO Team:** Steven Ramage, Irena Drakopoulou

**CSA:** Eric Laliberté, Frederic Fournier, Carmen Marcu, Matt Steventon

**EETT:** Gary Geller

**ESA:** Marie-Claire Greening

**EUMETSAT:** Robert Husband

**JAXA SIT Chair Team:** Osamu Ochiai, Yuko Nakamura, Satoshi Uenuma, Sato Teppei, Stephen Ward

**NASA:** Christine Bognar

**NOAA:** Charles Wooldridge, Katy Matthews, Adria Schwarber

**SEO:** Dave Borges

**UKSA:**  Beth Greenaway, Niall Bradshaw

**WGCapD:** Julio Castillo

**WGCV:**  Philippe Goryl

**WGClimate:** Jeff Privette

**WGDisasters:**  Laura Frulla

**WGISS:**  Tom Sohre

1. **Welcome and Action Review**

Eric Laliberté (CSA, CEOS Chair) welcomed participants to the CEOS SEC-318 meeting and reviewed the agenda. There were no further additions to the meeting agenda.

The CEOS Chair invited the leadership of the COAST *Ad Hoc* Team to SEC-318 for a brief progress report on the documents due to be presented to CEOS Principals for review and decision at the SIT-39 meeting on the matter of transitioning the COAST *Ad Hoc* Team into a Virtual Constellation.

Matt Steventon (CEOS Chair Team) reviewed two actions from the previous CEOS Secretariat meeting:

316-03: *CSA CEOS Chair Team to work with JAXA on a letter to CEOS Agencies seeking nominations for 2026 CEOS Chair. The state of the geographic rotation for the next few years will be noted, indicating that nominations for 2026 CEOS Chair are invited from the Asia/Pacific region. The letter will also note the applicable regions for 2027 and 2028, and the process for nominations that fall outside the schedule.*

* Helpful feedback was received from Christine Bognar and the NASA team. Specifically, it was suggested that the email to be sent to CEOS Agencies contain the CEOS Chair Terms of Reference as well as the [letter](https://docs.google.com/document/d/1wdZFmNzXqJ_reFbIuAZEA2aCz8Yo2UdPL9A4mTRGqRI/edit?usp=sharing).
* Comments on the draft letter were welcomed until February 16, 2024. After this date, the CEOS Chair Team will send the letter to CEOS Members and Associates.

317-01: *CEOS Executive Officer and SIT Chair Team to share the draft CEOS presentation for the WMO 15th Session of Consultative Meetings on High-Level Policy on Satellite Matters (WMO CM-15) for SEC review and input.*

* Steven Ramage (CEOS Executive Officer) reported that this was the first in-person WMO meeting in quite some time. The meeting took place during a time of leadership renewal at WMO, and included participation from many new staff, who expressed a strong willingness to collaborate. Discussions revolved around priorities of the WMO, including the UN’s Early Warning for All (EW4ALL) and WMO’s Global Greenhouse Gas Watch (G3W) initiatives.
* Approximately ten CEOS Agencies were present and the CEOS SIT Chair, JAXA, delivered a CEOS presentation.
* WMO made several requests during the meeting. These are expected to be captured in a summary and action report that will be produced by WMO and available shortly after the meeting.
* Overall, it was a positive series of meetings, marked by a clear desire for collaboration with space agencies, as expressed by the Directors in WMO.
* The meeting agenda and documents can be found [here](https://community.wmo.int/en/meetings/15th-session-consultative-meetings-high-level-policy-satellite-matters-cm-15).
* Osamu Ochiai (JAXA, SIT Chair Team) reported that the SIT Chair Team sought to convey a positive message regarding the establishment of better mechanisms for collaboration between CEOS and WMO. G3W is also a headline priority of the SIT Chair Team, which underscores the need for close communication between CEOS and WMO.
* WMO is an Associate member of CEOS and so have been invited to participate in the SIT-39 meeting, with both on-site and online participation options being considered. This is particularly important for discussions related to G3W.
* Jeff Privette (NOAA, WGClimate Chair) noted that CEOS Greenhouse Gas (GHG) Task Team, led by Yasjka Meijer, is working with WMO on the G3W Implementation Plan. Jeff stressed that we need clear lines of communication between CEOS and WMO regarding G3W. Marie-Claire Greening (ESA) and Eric Laliberté agreed. Osamu responded via chat that the SIT Chair Team and the Joint CEOS-CGMS Working Group on Climate are supporting the GHG Task Team’s engagement with WMO’s G3W and others.
1. **Update on COAST Virtual Constellation Process**

Paul DiGiacomo (NOAA, COAST *Ad Hoc* Team Co-Lead) reported:

* COAST is complementary to but distinct from the existing Virtual Constellations. COAST activities are focused on the land-ocean boundary and the development of new products for this important focus area. The aim is to address needs that are not currently being addressed in other fora.
* COAST is actively engaged with the Working Groups and Virtual Constellations to identify collaborative opportunities, which will be reflected in the implementation plan and schedule.
* COAST is officially recognised as a contribution to the UN Decade on Ocean Science and is closely working with colleagues through GEO Blue Planet and GEO AquaWatch.
* COAST is described as trans-parameter, trans-boundary, and trans-disciplinary:



* Merrie Beth Neely (NOAA) will distribute the latest documents for review by the Secretariat after SEC-318. These documents will then be shared for review by the rest of the CEOS community before the SIT-39 meeting.
* NOAA and ISRO have expressed their desire to continue leading a new Virtual Constellation through the transition phase and initial leadership term. Efforts are underway to find a third co-lead, with interest received from several agencies.
* Future activities of COAST could include expanding product development including for coastal blue carbon/habitat mapping, shoreline studies, a new Arctic pilot region, new stakeholder engagement events and co-design opportunities, contributions to the CEOS themes of biomass and ecosystem extent mapping, and further utilisation of the CEOS Analytics Lab (CAL).

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| **318-01** | COAST leadership team to share the latest COAST Virtual Constellation Implementation Plan, Terms of Reference, and Full Proposal with the CEOS Secretariat for review. Feedback from the Secretariat is requested by the end of February. | **ASAP for feedback from the CEOS Secretariat by the end of February** |

1. **CEOS Chair Report**

Frederic Fournier (CSA, CEOS Chair Team) reported:

* CSA is using its CEOS Chair year to plan for a potential broader CEOS response to biodiversity, aiming to present a proposal to the 2024 CEOS Plenary for decision. There is a particular focus on CEOS organisational matters, exploring possibilities such as establishing a new Working Group, other group, or an overarching coordination layer.
* In the lead up to the CEOS Chair year, CSA conducted consultation calls with many CEOS agencies, particularly those that had representatives present in the Ecosystem Extent Task Team. This effort has now been extended to the CEOS Working Groups and Virtual Constellations. The latter is being conducted with the support of the JAXA SIT Chair Team.
* The objectives of the Working Group consultations were to:
	+ Understand whether existing CEOS Working Groups, Virtual Constellations and other entities are directly or indirectly contributing to biodiversity related matters;
	+ Determine whether there are ongoing activities within the CEOS entities that are also applicable to the biodiversity topic / community and are transferable;
	+ Understand the extent to which the existing CEOS structure might be able to respond to a new headline CEOS priority of biodiversity and gather perspectives on the potential need for a new mechanism.
* It is important to ensure that considerations related to *in situ* data and interoperability are considered. There is also a need to recognise the link between climate and ecosystem change, and to understand how changes in ecosystems are influenced by climate change.
* Comments from the Working Groups emphasised the importance of the CEOS Interoperability Framework being considered from the outset of any solutions targeted to biodiversity and ecosystem extent mapping.
* While there was no direct link identified to WGDisasters’ ongoing activities, there is an interest in post-disaster recovery of ecosystems.
* Upcoming missions such as NISAR, BIOMASS, SBG, and CHIME will be highly relevant to biodiversity initiatives.
* CSA will emphasise a long-term approach and anticipates having an initial proposal for discussion at the SIT-39 meeting, aiming to share the key findings from their consultations.

Workshop Proposal: Trilateral Collaboration between UNCBD, GEO BON, and CEOS

* On December 20, 2023, the CSA CEOS Chair Team had its first meeting with the United Nations Convention on Biological Diversity (UNCBD) and the Group on Earth Observations Biodiversity Observation Network (GEO BON) to explore formal collaboration opportunities.
* The CEOS Chair Team is hoping to organise a workshop with representatives from UN CBD and GEO BON in late April 2024. A draft proposal for the workshop was shared with the CEOS Secretariat with the written reports for SEC-318 and feedback is welcomed. Eric Laliberté (CSA, CEOS Chair) thanked everyone that has provided comments to date. The overall objective is to identify key points of a possible formalised relationship. Then, we need to discuss how these are implemented. The outputs from the workshop are expected to be a key input for the discussion at the 2024 CEOS Plenary.
* It is acknowledged that the initial target timing for the workshop in late April might be too soon.

*Discussion*

* Katy Matthews (NOAA) suggested a broader spectrum of GEO activities beyond GEO BON should be represented in plans for the workshop and consultations in general, highlighting GEO Blue Planet, GEO AquaWatch, the Ecosystem Extent Atlas, Marine BON, etc. Marine BON is a key connection for COAST contributions.

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| **318-02** | CEOS Secretariat to review the *“Workshop Proposal: Trilateral Collaboration between UN CBD, GEO BON & CEOS”* and provide feedback to the CSA CEOS Chair Team. | **By the end of February** |

# SIT Chair Report

Osamu Ochiai (JAXA, SIT Chair Team) reported:

* The SIT Chair represented CEOS at the WMO Consultative Meeting on High-Level Policy on Satellite Matters on February 6-7, 2024. Several CEOS Agency Principals were also in attendance. The CEOS presentation focused on supporting the WMO priorities such as the UN’S EW4ALL, the WMO’s G3W, climate, and the WMO Unified Data Policy, and was well received. There was significant discussion on WMO’s G3W and the potential for CEOS contributions. This will be a feature of the SIT-39 meeting.
* The SIT Chair Team has prepared a first draft of the SIT-39 objectives and an outline agenda and shared these with CEOS SEC. Comments and suggestions are invited. The detailed agenda will be circulated in a few weeks.
* The SIT Chair Team is now working with key CEOS stakeholders to finalise the content and speaking slots for the SIT-39 meeting. Fewer, more detailed agenda items are being prioritised over general reporting, and the SIT Chair Team will encourage active Principal contributions.
* Osamu encouraged registrations and suggested that hotel bookings be made as soon as possible due to this being a busy period in Tokyo.
* Virtual Constellations consultation calls are underway, with three completed to date (LSI-VC, AC-VC and P-VC). The SIT Chair Team has been unable to schedule a time with OSVW-VC due to a lack of response from the co-leads from NOAA and EUMETSAT. Osamu requested the help of NOAA and EUMETSAT representatives to CEOS SEC to get a response from the co-leads of OSVW-VC.
* Some select updates from the Virtual Constellation consultation calls are noted below. More are included in the written report.
	+ AC-VC is discussing a new white paper regarding geostationary air quality measurements for the southern hemisphere. They are hoping this effort might also increase representation of these countries/agencies in AC-VC.
	+ The LSI-VC-15 meeting will be held in Tokyo the week before the SIT-39 meeting. A special workshop dedicated to engaging with commercial / New Space actors in Japanese EO is being considered. The intention will be to engage both data providers as well as data distributors. The primary focus is to promote CEOS-ARD and welcome an ongoing dialogue on all matters related to land surface imaging.
	+ P-VC is progressing a CEOS-ARD Product Family Specification for Level 3 gridded precipitation products. This is a welcome pathfinder for new types of thematic CEOS-ARD and could open new users and applications for CEOS data. This will be presented at the SIT-39 meeting.

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| **318-03** | CEOS SEC to ensure delegations for SIT-39 are registered and to provide feedback on the draft objectives to the JAXA SIT Chair Team. | **End of February** |
| **318-04** | SIT Chair Team to share details of the LSI-VC-15 / CEOS-ARD commercial engagement session with CEOS SEC for information. | **ASAP** |

## CEOS Executive Officer (CEO) Report

Steven Ramage (CEOS Executive Officer) reported:

* Submissions for the 2024-2026 CEOS Work Plan are being received, with the deadline set for February 16, 2024.
* Steven Ramage was approached by the Taskforce on Nature-related Financial Disclosures (TNFD; <https://tnfd.global/about/#who>). They are developing a public data facility and are interested in including space-based observations and wish to know how to best connect with CEOS. Steven suggested that TNFD could potentially attend and observe the SIT-39 meeting.
* UKSA is looking to confirm dates for the 2025 CEOS Plenary. The tentatively considered dates are November 3-7, 2025. CEOS Secretariat feedback on these dates is requested.
* Steven noted that he has been invited to an upcoming Open Geospatial Consortium (OGC) Board meeting. There is a desire from OGC for a closer working relationship with CEOS. CEOS has a substantial history of contributing to OGC efforts such as the Analysis Ready Data (ARD) and GeoDataCube Standards Working Groups, through the participation of the SEO, WGISS, WGCV, and others. An initial call with the Chair of the Board and the SEO will be arranged to discuss existing and potential collaboration opportunities, including involvement in initiatives such as openEO, which focuses on utilising big EO data in the cloud.

*Discussion*

* Beth Greenaway (UKSA) thanked Steven Ramage for raising the 2025 CEOS Plenary dates. It would be beneficial to secure the dates as soon as possible. She noted that it is already expected to be a very busy year for European agencies, with an ESA Ministerial taking place.
* Christine Bognar (NASA) noted via chat: C*EOS SEC members, for awareness in connection with 2025, the UNFCCC COP30 dates are Nov. 10-21, 2025, in Belem, Brazil. The 76th IAC dates are Sept. 29-Oct. 3, 2025, in Sydney, Australia.*

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| **318-05** | CEOS SEC to provide feedback to the UKSA team and CEOS Executive Officer on the suggested dates of November 3-7, 2025, for the 2025 CEOS Plenary. | **SEC-319** |

## Working Group Reports

**WGCapD**

Julio Castillo (AEM, WGCapD Vice Chair) reported:

* WGCapD held its monthly meeting on February 8, 2024.
* Collaboration and discussions with other CEOS Working Groups is ongoing.
* Four of the CEOS 2024-2026 Work Plan activities have been discussed.
* SANSA and AEM will work with the CEOS Executive Officer to engage space agencies in Africa and Latin America respectively, with support from the WGCapD community.
* The WGCapD annual meeting will be a hybrid meeting hosted by the Mexican Space Agency (AEM) in Mexico City on March 25-27, 2024.
* A South African Earth Observation Stakeholder Workshop was held at the CSIR International Convention Centre in Pretoria on February 15, 2024.
* An EOTEC DevNet Global Task Team Quarterly Check-In is scheduled for February 15, 2024.

**WGClimate**

Jeff Privette (NOAA, WGClimate Chair) reported:

* The time window for nominations for the role of WGClimate Vice Chair is open until March 6, 2024. For this nomination cycle the candidates must be from a meteorological agency as noted in the WGClimate Terms of Reference: “*The working group shall be led by a Chair serving a term of 2 years; alternately drawn from meteorological and non-meteorological space agencies. A vice-chair will also be elected with the intention to ensure a smooth transition at the end of the chairmanship. Arrangements shall also be put in place to ensure unique and consistent reporting to both CEOS and CGMS Plenaries."*
* The WGClimate-20 meeting will be held in Boulder, Colorado on March 26-28, 2024.
* There is currently a lack of consistency in how WGClimate members present the Working Group to the community. This includes policies or templates on branding and distinguishing between CEOS and home agency contributions. To address this situation, a draft template including CEOS-CGMS branding for WGClimate slide sets is being developed. Feedback from other CEOS entities on their practices is welcomed.

*Discussion*

* Eric Laliberté (CSA, CEOS Chair) noted that CEOS presentation templates are available for meetings beyond just SIT, Plenary, etc.

**WGCV**

Philippe Goryl (ESA, WGCV Chair) reported:

* The Pre-flight Calibration Workshop website is now open to the public. The site can be accessed [here](https://atpi.eventsair.com/pre-flight-calibration-workshop/). CEOS SEC assistance promoting the workshop would be appreciated.
* A publication was released on AGU EOS titled *"*[*Trustworthy Satellite Earth Observations for Science and Society*](https://doi.org/10.1029/2024EO240055)*"*. The article, published on 8 February 2024, aims to disseminate the outcomes of LPVE23 (Land Product Validation Evolution) and CEOS-WGCV-LPV activities to the broader community. It was a collaborative effort between the LPV Chair and Secretariat, Michael Cosh and Jamie Nickeson, focusing on enhancing confidence in satellite observations of terrestrial properties such as land surface temperature and soil moisture through advancements in validation and data quality assessment practices. This publication marks a significant achievement for the WGCV Land Product Validation subgroup.
* The WGCV-53 meeting will be held in Córdoba, Argentina, on March 5-8, 2024. The meeting website, registration form and logistics are in place. Philippe hopes to have a presentation from the next WGCV Vice Chair candidate.
* Philippe will attend the WMO GSICS meeting in the second week of March 2024. In parallel, the 2024 JACIE Workshop will take place at USGS Headquarters in Reston, Virginia, USA.

**WGDisasters**

Laura Frulla (CONAE, WGDisasters Chair) attended while being on vacation leave and apologised for not having a report ready in time for SEC-318. She noted that the next report will cover two months.

**WGISS**

Tom Sohre (USGS, WGISS Chair) reported:

* An email was sent to all CEOS Working Group leads seeking participation in development of the CEOS Interoperability Handbook v2.0. This will be discussed further at the WGISS-57 meeting.
* The draft agenda for WGISS-57 is available on the CEOS website. There are 24 in-person and 11 virtual registrations to date. As well as core WGISS business, the meeting will cover potential contributions from WGISS in support of biodiversity, collaboration with LSI-VC on CEOS-ARD, activities in support of the SEO, and collaborations with WGCapD.

## CEOS Systems Engineering Office (SEO) Report

Dave Borges (SEO, NASA) reported:

* Katy Matthews and Dave Borges, representing the CEOS Sustainable Development Goals Coordination Group, made a presentation during the United Nations Global Geospatial Information Management (UN-GGIM) SDGs Esri Forum on February 14, 2024.
* Dave will also present at a side meeting of the United Nations Statistical Commission 55th Session (27 February - 1 March, 2024)
* SDG Coordination Group members are also attending regular UN-GGIM Working Group on Geospatial Information (WGGI) meetings and contributing to the WGGI white paper, “Rescuing the SDGs”.
* CEOS is celebrating its 40th year, and the CEOS Communications Team has formulated a plan for a new *“Faces of CEOS”* video compilation of CEOS Principals answering several questions addressing past CEOS impact/value and future vision. The request would be for CEOS Principals to work with their own communications teams to produce production quality videos that can be compiled into the final version. Dave hopes that SEC agencies will lead by example and help the CEOS Communications Team prepare a high-quality compilation.

*Discussion*

* Beth Greenaway (UKSA) expressed her support for the proposed initiative, considering it highly valuable. She asked for the timeline for completion and stressed the need for coordination to ensure that each participant does not repeat information.
* The CEOS Communications Team will follow up by providing further information and leading coordination efforts to prevent duplication. The aim is to have all videos submitted by the end of July. This timeline will allow the Communications Team to curate and aggregate all the inputs throughout August, with the goal of having a shareable product by September 2024.
* Christine Bognar (NASA) suggested sending an email clarifying the process and containing the information requested by Beth.
* Charles Wooldridge (NOAA), Beth Greenaway (UKSA), Marie-Claire Greening (ESA), Tom Sohre (USGS, WGISS Chair), Yuko Nakamura (JAXA), and Christine Bognar (NASA) expressed their support via chat.
* It is hoped that the content will be evergreen and reusable.
* Eric Laliberté (CSA, CEOS Chair) and Beth Greenaway (UKSA) encouraged diversity in representation, both in terms of agency geography as well as the themes of the benefits.
* Seeing unanimous support, Dave will proceed with the next steps. Invitations, along with detailed instructions, will be distributed following the SEC meeting.
* Dave highlighted the increasing connection between agencies and the CEOS Communications Team, stressing the importance of leveraging agency communication channels to amplify CEOS messages.
* Christine Bognar (NASA) noted via chat: *One additional suggestion would be to display CEOS Agency logos at some point in the video. As you know, these are accessible on the CEOS website.*

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| **318-06** | Dave Borges (SEO, NASA) to share further details and instructions regarding the CEOS 40th Anniversary Faces of CEOS campaign, including the production timeline and coordination requirements that will avoid duplication in messaging. | **ASAP** |

## AOB

Beth Greenaway (UKSA, 2025 CEOS Chair Team) noted that UKSA is considering the priorities for their CEOS Chair term. The UKSA team intends to gather feedback from CEOS colleagues at SIT-39. One early idea is for a campaign on a *“Youth Voice for CEOS”,* which could be launched at the 2024 CEOS Plenary. This would be specifically targeted at individuals aged 15-16 years old, with the aim being to inspire youth collaboration across countries throughout the year, with one youth voice presenting outcomes to the 2025 CEOS Plenary in the UK. UKSA wishes to share this idea and welcomes feedback. This topic could be revisited at a future SEC meeting.

## Adjournment

Eric Laliberté (CSA, CEOS Chair) thanked participants for attending CEOS SEC-318 and reviewed the preliminary action record. SEC-319 will be held on Thursday, March 21, 2024, at 7 AM U.S. Eastern. The plan for SEC teleconferences/meetings leading up to the 2024 CEOS Plenary is as follows (typically Thursday):

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| SEC-319: March 21, 2024SEC-320: April 9, 2024 (SIT-39)SEC-321: May 16, 2024SEC-322: June 20, 2024SEC-323: July 18, 2024 | TBC: August 22, 2024SEC-324: September 5, 2024SEC-325: Pre-SIT-TW meeting September 2024SEC-326: October 10, 2024SEC-327: October 22, 2024 (CEOS Plenary) |

The start time for all teleconferences will be 7 AM U.S. Eastern. If there are face-to-face meetings, the times will be advised closer to the dates.