**Minutes V1.0**

**305th CEOS SECRETARIAT MEETING**

Thursday 9 March 2023

Chaired by GISTDA

**Participants**

**CEO:** Marie-Claire Greening

**CSA:** Eric Laliberté, Marie-Josée Bourassa

**EUMETSAT:** Robert Husband, Paul Counet

**ESA SIT Chair Team:** Ivan Petiteville, Eleni Paliouras, Stephen Briggs, Stephen Ward, George Dyke

**GEO SEC:** Laurent Durieux

**GISTDA:** Pakorn Apaphant, Nuttavipa Thanthawewut, Atipat

Wattanuntachai, Matt Steventon, Libby Rose, Riza Singh

**JAXA:** Osamu Ochiai, Yuko Nakamura, Yukio Haruyama, Satoshi Uenuma

**NASA:** Christine Bognar

**NOAA:** Charles Wooldridge, Katy Matthews

**WGCV:**  Philippe Goryl

**WGClimate:** Jeff Privette

**WGDisasters:** Laura Frulla

**WGISS:** Makoto Natsuisaka, Tom Sohre

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

Pakorn Apaphant (GISTDA, CEOS Chair) welcomed everyone to SEC-305 and reviewed the open CEOS SEC action items. It was suggested that actions *SEC-302-02* and *SEC-304-01* be discussed during the WGClimate report.

*SEC 304-02: CEOS SEC to raise any known objections for the weeks of the 8th or 22nd of April 2024 with the JAXA SIT Vice Chair Team.*

* Osamu Ochiai (JAXA) thanked everyone for providing feedback on the dates for SIT-39, to be hosted by JAXA in 2024. It appears the period targeted is busy with many different events, making it difficult to find an ideal week. Osamu will discuss this internally with the JAXA SIT Chair Team and come back to SEC with a follow up proposal.

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| **305-01** | Osamu Ochiai (JAXA) to discuss the tentative date for SIT-39 internally with the JAXA SIT Chair Team and CEOS Principals before coming back to SEC with a proposal. | **SEC-306** |

Pakorn Apaphant (GISTDA, CEOS Chair) asked the Working Group Chairs and Vice Chairs, during their reports to SEC-305, to inform SEC if there are any decisional topics they are targeting for SIT-38. Working Groups should email the SIT Chair Team at their earliest convenience if there are any decisions expected.

Pakorn noted that the next CEOS Plenary was planned to be held in Chiang Rai, in the Northern part of Thailand, in mid-November 2023. He asked if there would be any objection to changing the location of the event. GISTDA is now considering a location towards the southern part of Thailand instead.

Christine Bognar noted that NASA has not yet made travel plans, so a change of location wouldn’t be an issue, provided the dates remain the same. Pakorn noted the dates would not change. No objections to a venue change were raised.

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| **305-02** | Pakorn Apaphant (GISTDA, CEOS Chair) to confirm the venue for the 2023 CEOS Plenary. | **SEC-306** |

## CEOS Chair Report

Pakorn Apaphant (GISTDA, CEOS Chair) reported:

* The workshop organised by GISTDA and USGS-SilvaCarbon was hosted in Thailand on February 23 - March 2, 2023. GISTDA also organised a seminar in Bangkok one day prior to the workshop, on February 22, 2023. Participants included industry representatives, policymakers, researchers, and local stakeholders who are interested in carbon accounting techniques. There were more than 300 participants.
* The seminar was particularly beneficial for South-East Asian stakeholders involved in carbon accounting. The seminar promoted the use of satellite data for carbon accounting.
* Overall, the seminar received a good response from participants, who recognised that there is a huge potential for space-based observations for climate change mitigation.
* The seminar included presentations from USGS-SilvaCarbon, as well as Osamu Ochiai from JAXA, who presented on behalf of CEOS.
* The workshop following the seminar included 30 participants from Thailand and South-East Asia. Participants learned about the latest AFOLU datasets used for monitoring and assessing forests, discussed and shared knowledge on AFOLU datasets for land management, conservation, and climate change mitigation. Participants had the opportunity to take part in hands-on training sessions.
* Overall, there was a good outcome with improved awareness and understanding of space-based AFOLU datasets that can be used on a global scale.

1. **SIT Chair Report**

Ivan Petiteville (ESA, SIT Chair Team) reported:

* Marie-Josée Bourassa has reported that she will be leaving CSA on March 31, 2023. She currently serves as CEOS representative to the GEO Post-2025 Working Group, and as a Co-lead of the Ecosystem Extent Task Team (EETT).
* Marie-Josée noted she would not recommend nominating a new CEOS representative to the GEO Post-2025 Working Group as the group is established and close to the conclusion of their activities. Jonathon Ross (GA), Mark Dowell (COM) and Osamu Ochiai (JAXA) are in both communities, alongside Katy Matthews (NOAA) who is at the heart of the matter in different capacities. CEOS interests are well looked after.
* Katy Matthews (NOAA) noted Osamu Ochiai (JAXA), Jonathan Ross (GA) and others who have strong knowledge of CEOS are participating in GEO Post-2025 Working Group. CEOS is also involved in the Executive Committee (ExCom) via the SIT Chair team and CEO and can also ensure that CEOS interests are looked after. She thanked Marie-Josée for all her contributions to CEOS.
* Discussions at SIT-38 on the outcomes of GEO ExCom and the way forward on GEO Post-2025 will be of the utmost interest.
* There are two other Co-leads of the EETT – Gary Geller (NASA) and Sandra Luque (CNES). The group will meet later today and will discuss the leadership issue. A third Co-lead is preferable. CSA may not be able to provide a new co-lead, and CEOS should endeavour to identify a new lead. Marie-Josée noted there are several people already on the team that could fill the position.

*Discussion*

* Christine Bognar (NASA) thanked Marie-Josée on behalf of NASA for all her contributions to CEOS.
* Laurent Durieux (GEO SEC) also thanked Marie-Josée on behalf of GEO SEC for all her contributions to GEO.

Carbon & Biomass

* The SIT Chair team will provide updates on the Earth Observation (EO) Handbook Global Stocktake (GST) special edition, International Methane Emissions Observatory (IMEO) engagement, and more during the carbon and biomass session at SIT-38. WMO will present on their Greenhouse Gas (GHG) initiative.

Simon Stiell, of the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, has been invited to address SIT-38, as well as to contribute to the CEOS EO Handbook. No response received yet.

CEOS-ARD

* The OGC ARD Standards Working Group (SWG) approval process is continuing. The CEOS team continues to monitor and engage throughout the process and will consider whether a CEOS representative would be a good candidate for the open Co-Chair position.
* An OGC ARD SWG meeting was held at ESA ESRIN on February 21, 2023, during the OGC member meeting.
* The CEOS-ARD Oversight Group Secretariat is participating in the planning calls for the ARD23 workshop, which will be held in San Francisco, USA on May 16-18, 2023. It is an industry-led workshop on topics related to EO data, ARD, interoperability, access and discoverability, the cloud, and more. The SIT Chair team will ensure CEOS Agencies are well represented and informed, and the workshop will include a CEOS-ARD session.
* CEOS-ARD Oversight Group Secretariat joined the WGClimate-18 meeting last week and presented on CEOS-ARD. WGClimate is considering nominating a representative to the Oversight Group to explore opportunities. There is an open question as to whether the CEOS-ARD concept applies logically to the climate EO data domain.
* WGClimate will consider undertaking a preliminary assessment of some datasets and CDRs in the ECV Inventory against existing CEOS-ARD Product Family Specifications (PFS). The group will also consider whether there is a need for new PFS for other climate related products.

CEOS New Space

* The New Space Task Team (NSTT) meeting was held on March 6, 2023. Antonio Ciccolella (ESA) is the new lead of this task team. The meeting discussed the status of the ‘Think Piece’ document which provides some context, background, and scope to the CEOS NSTT’s activities. This will now be finalised and submitted as a supporting reference for SIT-38 and will feed into a white paper targeted for endorsement at the 2023 CEOS Plenary.
* Work continues on the NSTT Activities Working Document with each section now delegated to various CEOS groups. This will also feed into the white paper, for presentation at CEOS Plenary.
* UKSA, NASA and JAXA will present their experiences of working with New Space at SIT-38.

SIT-38 Preparations

* The latest draft agenda for SIT-38 was circulated to the SEC on March 7.
* Registration is still open via the meeting website: <https://ceos.org/meetings/sit-38/>
* Presentation templates and a shared folder link are also available on the website. The deadline for document submission for decision at SIT-38 was March 7, 2023, and the deadline for presentations is on March 21, 2023.
* Laurent Durieux (GEO Secretariat) has confirmed his participation at SIT-38 and confirmed that a 10-minute presentation is sufficient for GEO SEC reporting.
* The SIT Chair team is coordinating with the CEOS Chair on Session 8, which is dedicated to CEOS Chair priority topics and a mini-plenary session.

Upcoming Meetings

* SIT-38 will be held at ESA ESRIN in Frascati, Italy, in the week of March 27, 2023.
* The 2023 SIT Technical Workshop will be held on October 17-19, 2023, at ESA ESRIN in Frascati, Italy. A session on the side meeting day for Virtual Constellations, Working Groups and Ad Hoc Teams is being considered. This will be discussed further at SIT-38.

*Discussion*

Ivan Petiteville (ESA, SIT Chair Team) noted that this will be his last report at CEOS SEC. The SEC wished Ivan all the best and thanked him for his years of exceptional service to CEOS.

1. **CEOS Executive Officer Report**

Marie-Claire Greening (CEOS Executive Officer) reported:

CEOS Work Plan 2023 – 2025

* The final draft (version 0.2) of the 2023-2025 CEOS Work Plan was completed and circulated to CEOS Principals on March 6, 2023.
* Principals have been given the opportunity to provide any final substantive comments ahead of virtual endorsement on March 20, 2023. This schedule ensures that a fully endorsed version of the 2023-2025 CEOS Work Plan and its associated deliverables is ready before SIT-38.

Other Business

* Summary documents from the CEOS-GEO meeting have been sent to GEO SEC for internal review and will then be sent to SEC for information.
* The CEO attended WGCapD-12 last week. It was a joint meeting with UN Space with many participants from many UN agencies.
* The CEO is continuing to work on the general CEOS presentation slide deck and has reached out to CEOS entities for contribution. She has only received one input so far. Marie-Claire will continue to follow up.
* Marie-Claire will contribute at least one article to CEOS Newsletter in the coming period.

Upcoming Meetings

* The GEO Executive Committee meeting will be held in Geneva, Switzerland on March 22-23, 2023.
* SIT-38 and Side Meetings will be held in Frascati, Italy on March 28-30, 2023.
* The joint meeting of WGISS-55 and WGDisasters-19 will be held in Cordoba, Argentina from April 18-20, 2023.

1. **Working Group Reports**

**WGDisasters**

Laura Frulla (CONAE, WGDisasters Vice Chair) reported:

* WGDisasters presented their activities during the WGCapD-12 and UN-Space *“Meeting on the identification of needs of Member States and United Nations entities for Capacity Building in the Use of Space Observations.”*
* Following the Turkish and Syrian earthquakes, the “Kahramanmaraş Event Supersite” was established by GSNL and was submitted to CEOS WGDisasters by the coordinators. This “Event Supersite” includes the creation of a platform for the exchange of scientific results and information on open data access. ASI has agreed to provide resources, as well as CNES (with quotas), while DLR is analysing the request.
* On the Wildfire Pilot project, an international survey of wildland fire management organisations is being carried out until the end of March, aiming to achieve a high-level characterisation of users and needs. The survey is performed through the Global Observations of Forest Cover and Land-use Dynamics (GOFC–GOLD) Fire Implementation team and affiliated regional networks representatives.

Upcoming Meetings

* WGDisasters-19 and WGISS-55 joint meetings will be held on April 18-21, 2023, at CONAE´s main receiving station in Cordoba, Argentina.
* WGDisasters-20 will be held in Yellowstone, USA on September 5-7, 2023.

**WGClimate**

Jeff Privette (NOAA, WGClimate Chair) reported:

* WGClimate currently does not have the capacity to provide representatives to the New Space Task Team, CEOS-ARD Oversight Group, or the Ocean Coordination Group. WGClimate will continue to follow the status of these groups and revisit the idea of nominating a representative later.
* A WGClimate representative for the CEOS AFOLU Roadmap Team is in the process of being confirmed.
* There are limited agencies active in WGClimate, which means they have limited ability to support multiple CEOS and partner (e.g., GEO, GCOS) initiatives in addition to internal activities.
* WGClimate-18 was a three-day hybrid meeting. It mainly focused on setting 2023 priorities, schedules, planning and staffing. More information is available in the written report.

Upcoming Meetings

* WGClimate will be participating in SIT-38 virtually.
* The CGMS Working Group II meeting will be held on April 24-28, 2023. Jeff Privette is participating virtually and Wenying Su will join in person.
* WGClimate will support a session on climate that is being planned at WGCV-52 in June.
* CGMS-51 Plenary is being held on June 26-28, 2023. WGClimate will likely have a representative participating in person.
* WGClimate-19 will tentatively be held on October 16-17, 2023, preceding the SIT Technical Workshop.

**WGISS**

Makoto Natsuisaka (JAXA, WGISS Chair) reported:

* A WGISS System Level Team meeting was held on February 28, 2023. Development of a STAC Best Practices document was proposed and the team was invited to join the CEOS Interoperability Framework activity. The System Level Team agreed to contribute to the STAC investigations foreseen in the Interoperability Framework.
* The second meeting of the CEOS Interoperability Framework team was held on March 1, 2023, where components, membership, vision, processes, and more were discussed. The draft roadmap will be provided as an input to SIT-38.
* A CEOS Interoperability Framework SIT-38 side meeting will be held on March 28, 2023. The meeting invitation will be shared. Everyone is welcome to join.
* A WGISS introductory presentation was given to the joint UN-Space and WGCapD-12 meeting on March 2, 2023.

Upcoming Meetings

* WGISS-55 will be held in Cordoba, Argentina on April 18-20, 2023.
* WGISS-56 will be held in Paris, France on October 24-26, 2023.

**WGCapD**

An apology was received in advance from Jorge Del Rio Vera (UNOOSA, WGCapD Chair) for not being able to attend the teleconference. The WGCapD written report is available in the consolidated PDF.

**WGCV**

Philippe Goryl (ESA, WGCV Chair) reported:

* WGCV is progressing with the establishment of an SI-Traceable Satellite (SITSat) Coordination team. It was proposed to GSICS as a joint team at the GSICS Plenary in early March 2023. The Terms of Reference for the group are being finalised and the group membership is being defined.
* The CEOS New Space Task Team working document is being reviewed and updated. The WGCV contribution is composed of four elements: the references (radiometric, geometric, image quality) against which New Space can refer; the intercomparison framework, allowing a better understanding of algorithms; SITSat coordination, which is long-term perspective aimed at providing absolute references from space; and expertise sharing, through e.g., JACIE, VH-RODA, and other similar conferences.
* A discussion on the Fiducial Reference Measurement (FRM) assessment process took place in February, and a draft approach will be prepared based on a review of existing FRM projects. The approach will be reviewed by the end of March 2023 with the target to present it in a publication of the Special Issue *"Copernicus Sentinels Missions Calibration, Validation, FRM and Innovation Approaches in Satellite-Data Quality Assessment"*. The challenge is to remain generic while considering the specificities of each instrument and domain.
* At the last GSICS annual meeting on March 1, 2023, WGCV presented activities that are relevant both for WGCV and GSICS, including the SITSat task team, FRM Assessment Framework proposal, the Cal/Val Maturity Matrix as a consistent tool for assessing and communicating requirements with New Space, and the organisation of the workshop on Pre-flight Calibration and Characterisation.
* A WGCV progress meeting was held on March 7, 2023. Various progress and actions were reviewed. Including responding to the request for *“...need for guidance for Hyperspectral Cal/Val reference site instrumentation.”* (WGCV-51-ACT-14). It was agreed this would be a useful resource for the Cal/Val portal. WGCV have started to compile a list of existing resources covering instrumentation, networks, campaigns, hardware, algorithms, etc.

Upcoming Meetings

* WGCV will present at SIT-38 on the Cal/Val Maturity Matrix in coordination with the WGISS Maturity Matrix as a tool for consistently reporting and communicating requirements with New Space.
* The second meeting of the TIRCALNET group will take place on March 20, 2023.
* Nigel Fox from WGCV IVOS is organising a virtual workshop on solar spectra in April 2023.
* The CEOS WGCV IVOS meeting is being planned. The potential date is May 2023.
* WGCV ACSG and AC-VC are planning to co-organise a joint meeting, likely in Brussels in September 2023.
* The JACIE meeting is being held at the USGS Headquarters in Reston, Virginia on March 27-30, 2023.
* CEOS WGCV TMSG and DEMIX Workshop Plenary meeting will be organised in July 2023 together with the Geomorphometry 2023 workshop. More information is available at: <https://geomorphometry.org/geomorphometry-2023/>

1. **GEO SEC Report**

Laurent Durieux (GEO Secretariat) reported:

* Laurent has decided not to renew his position at GEO SEC. He has been nominated as the head of international cooperation of Data Terra, a French national infrastructure of scientific data systems. Laurent's last CEOS SEC meeting will be in April. He will be attending SIT-38 in person.
* GEO SEC have received requests from Dave Borges (SEO) and other CEOS colleagues to confirm who will be filling the GEO SEC position to ensure continuity of the SDG priority, in particular the relationship between the CEOS SDG team and EO4SDGs, as well as continuity for GEO LDN activities, CEOS support, and the CEOS Ecosystem Extent Task Team. Laurent doesn’t have any answers yet but expects to have some updates by SIT-38.
* In his new position, he might be able to continue supporting the CEOS Ecosystem Extent Task Team and GEO Wetlands. He was also nominated as a Scientific Expert of STRP and would request IRD to allow him to continue to support some other CEOS and GEO activities.
* EO4SDG will launch a work program survey to evaluate how EO is supporting the targets and goals of the SDGs. They have an ongoing discussion with GEO SEC to decide how best to communicate this survey.
* ExCom in March will be an important opportunity to discuss the GEO post-2025 Strategy. The global campaign concept discussed during the CEOS-GEO coordination meeting will also be discussed at ExCom.
* The GEOGLAM Coordinator position is open, and GEO SEC are inviting nominations from the community.

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| **305-03** | Laurent to confirm the name of the new GEO SEC representative to CEOS. | **SIT-38** |

*Discussion*

Pakorn Apaphant (GISTDA, CEOS Chair) and SEC thanked Laurent for his contributions to CEOS.

1. **SEO Report**

Dave Borges (NASA, SEO) was unavailable to report. He sent written notice to the CEOS Chair in advance and directed SEC to the written report available in the consolidated PDF.

1. **AOB**

CEOS Newsletter

Satoshi Uenuma (JAXA/RESTEC) reported the 2023 CEOS Newsletter Plan. There are 20 articles planned for 2023 and JAXA have started contacting the proposed authors.



## Next Meeting and Adjournment

Pakorn Apaphant (GISTDA, CEOS Chair) thanked everyone for attending SEC-305. SEC-306 will be held on March 28, 2023, at 9am CEST on the SIT-38 side meeting day. The plan for CEOS SEC teleconferences/meetings leading up to the 2023 Plenary is as follows (typically Thursday):

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| SEC-306: March 28, 2023 (SIT-38)  SEC-307: April 20, 2023  SEC-308: May 18, 2023  SEC-309: June 15, 2023  SEC-310: July 20, 2023 | SEC-311: September 7, 2023  SEC-312: September 28, 2023  SEC-313: October 17, 2023 (SIT TW)  SEC-314: November 13, 2023 (CEOS Plenary) |

The start time for all teleconferences will be 7 AM US East. Face-to-face meeting times will be advised closer to the dates.