**Minutes V1.0**

**248th CEOS SECRETARIAT MEETING**

Thursday 14th March 2019

Chaired by VAST-VNSC

**Participants**

**CEO:** Steven Hosford

**COM:**  Astrid-Christina Koch, Mark Dowell

**ESA:** Ivan Petiteville

**EUMETSAT:** Robert Husband

**GEO SEC:** Akiko Noda

**ISRO:** –

**JAXA:** Yukio Haruyama

**NASA:** Christine Bognar

**SIT Chair Team:** Steve Volz, Kerry Sawyer

**SEO:** Brian Killough

**SIT Vice Chair Team:** Jonathon Ross

**VAST-VNSC:** Pham Anh Tuan (Chair), Linh Phan, Mai Thu, Lam Dao Nguyen,

Thanh Trong Nguyen, Stephen Ward, Matt Steventon,

Luke Smith

**WGCapD:** Nancy Searby

**WGClimate: –**

**WGCV:**  –

**WGDisasters:** Simona Zoffoli

**WGISS:** Mirko Albani

1. **Welcome and Introductions**

Matthew Steventon (CEOS Chair Team) welcomed everyone to CEOS SEC-248.

1. **Action Status**

Matthew Steventon (CEOS Chair Team) noted that any open actions are planned to be covered during the course of the meeting and moved on to the next agenda item.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

* There are no updates to report regarding the search for the future CEO/DCEO.
* The draft CEOS Work Plan was distributed on 28 February. Feedback and comments received to date will be included in the final version for endorsement, which will be distributed as soon as possible. The deadline for final comments will be 22 March.
* The CEOS-GEO Bilateral Meeting proved to be a very interesting exchange with the GEO SEC Director and staff on a number of important topics for CEOS. An action was taken to work with Craig Larlee (GEO Work Programme Coordinator) to identify further details on overlaps between the CEOS and GEO Work Plans.
1. **SIT Chair Report**

Kerry Sawyer (NOAA, SIT Chair Team) reported:

* A short summary of the CEOS-GEO Bilateral Meeting will be provided by 15 March. One of the most tangible outcomes was coordination of the CEOS and GEO Work Plans. Craig Larlee (GEO Work Programme Coordinator) will be attending SIT-34 for discussions on the two Work Plans.
* The draft SIT-34 agenda was shared with the CEOS community on 3 March, and no comments or revisions have been received. The final agenda will be sent on 15 March.
* Presentation templates are available on the SIT-34 website. CEOS SEC was asked to ensure the template is followed, and to provide all slide sets by 26 March.
* Two site visits to NOAA’s Atlantic Oceanographic and Meteorological Laboratory in Key Biscayne are proposed for 2 April, with a 10am session and a 2pm session. Albert DeGarmo (NOAA, SIT Chair Team) will be contacting those attending the site visit separately, to confirm logistical arrangements, participation, and to get details for access required by the site, which will be due 28 March.
* There is still a disconnect between those that have registered for SIT-34 and those that have made hotel room reservations at the Mayfair. Kerry reiterated that registering for SIT-34 does not guarantee a hotel room – accommodation must be booked separately.
* The SIT Technical Workshop will now take place in Fairbanks, Alaska, at the University of Alaska, Fairbanks. The exact timing of the meeting is still being decided.

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| **248-01** | Agencies to communicate to the SIT Chair Team: their preference for starting the SIT Technical Workshop on Monday or Tuesday of the week of 9 September. | **1 April** |

* Steve Volz (NOAA, SIT Chair) asked SIT-34 attendees to remain at the meeting for the duration of the afternoon session on Thursday for an important discussion on CEOS governance and organisational matters.
* Comments on the Space Climate Observatory letter have been received, and the SIT Chair will work with Joerg Schulz (EUMETSAT, WGClimate Chair) on the letter, which is aimed for distribution this week (ref: **CEOS-32-03**).
* The GEO ExCom-47 and 13th Programme Board meetings will take place next week. Kerry Sawyer will be attending both on behalf of CEOS (as Participating Organization Observer to ExCom; as CEOS Principal to Programme Board). Steve Volz, Ivan Petiteville (ESA), Jonathon Ross (GA, SIT Vice Chair Team) and Osamu Ochiai (JAXA) will also be attending.

In consideration of past CEOS interactions on the SCO topic, Christine Bognar (NASA) suggested the SCO presenter be asked to share their slides with CEOS leadership in time to receive feedback before being presented at SIT-34. Kerry noted that all presentations are due by 26 March. Jonathon Ross (GA, SIT Vice Chair Team) recommended that CEOS welcome (in the SCO letter) the announcement that the SCO will be a GEO Initiative. He will send some suggested text to the SIT Chair Team for inclusion.

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| **248-02** | Jonathon Ross to provide text for inclusion in the response to SCO welcoming the announcement that the SCO will be a GEO Initiative. | **ASAP** |

Mark Dowell (COM) noted WGClimate-10 will be held next week, with discussion sessions aimed at determining the specific follow-on actions for the GHG monitoring task and to develop a road map of next steps. Kerry noted that the presentation and discussion on the GHG task will be covered under agenda item 4.2 of SIT-34, and the intention was for the AC-VC presentation (item 4.4) to focus specifically on the AC-VC white paper.

Astrid-Christina Koch (COM) would like to arrange a SIT-34 side meeting on “future CO2 monitoring”. Kerry noted there is space available, but there will be an overlap of meetings. Astrid and Kerry will discuss further offline.

Ivan Petiteville (ESA) noted that the VNSC CEOS Chair Initiative side meeting overlaps with lunch. This is unfortunately unavoidable. *After the call, Kerry informed CEOS SEC that lunch will not be provided to side meeting participants on 2 April.*

1. **GEO SEC Report**

Akiko Noda (GEO SEC) reported:

* The CEOS-GEO Bilateral Meeting was held in Geneva, 21-22 February. The following were agreed, pending finalisation of the minutes:
	+ GEO SEC will share all the GEO Work Programme Implementation Plan proposals with CEOS for review and feedback to GEO;
	+ Craig Larlee (GEO Work Programme Coordinator) will participate in the CEOS SIT-34 meeting to share the GEO Work Programme review status with CEOS;
	+ GEO will facilitate a discussion on Essential Variables at the 2020 GEO Symposium and invite relevant GEO Work Programme activities to present their efforts/views;
	+ GEO SEC will propose CEOS be given a presentation slot at the 2019 GEO Ministerial to present on the utility of space-based Earth observations for countries’ SDG needs.
* The 47th GEO Executive Committee will be held 19-20 March, immediately followed by the 13th GEO Programme Board Meeting, 21-22 March. The main topics are an Interim Report on GEO Work Programme Implementation Plans, GEO Foundational Task descriptions, adjustment of the review process, and planning for the 2019 GEO Symposium.

Brian Killough (NASA, SEO) recalled that discussions at the bilateral did not (as initially reported) result in an action for CEOS to create a GEO Knowledge Hub prototype. Steve Volz (NOAA, SIT Chair) noted there was recognition from the GEO SEC Director of the need for a plan for a demonstration of the capability of the proposed Knowledge Hub. Brian and Steve will review the minutes and organise a teleconference to discuss the topic further. CEOS leadership will review the minutes and the action can be discussed when CEOS and GEO reconcile their minutes from the bilateral.

Mark Dowell (COM) noted the Essential Variables discussion has come up several times over the years and suggested a bilateral topic on this will assist in defining where efforts will be most effective and avoid overlap with other activities. He sees a Foundational Task on requirements as a fundamental part of the activity and a dedicated bilateral discussion on the topic should be arranged. Kerry Sawyer (NOAA, SIT Chair Team) noted this was brought up at the CEOS-GEO Bilateral and will be discussed at other upcoming GEO meetings.

Jonathon Ross (GA, SIT Vice Chair Team) noted there is a face-to-face GEO Ministerial Summit Working Group meeting next week in Geneva, with a review of any agenda proposals, including those from the GEO SEC. It is hoped a high-level view of the agenda will be shared shortly after the meeting.

Akiko thanked Brian Killough for the ODC training recently provided to staff of the GEO Secretariat.

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* Brian will attend the 4th GEO Data Technology Workshop on 23-25 April in Vienna, Austria. Several presentations will be given on the topic of Data Cubes.
* The SEO team met with the GEO Secretariat on 20 February to provide Open Data Cube training and to discuss GEO’s plans for managing the $1.5M of Amazon cloud credits for their new GEO Amazon Cloud Credit Programme, of which the SEO are expecting many proposals will use the Data Cube. GEO has agreed to allow CEOS access to the proposals to provide feedback and review, with an emphasis on identifying concerns regarding data issues.
* NASA and USGS have completed pre-processing and delivery of over 110,000 surface reflectance ARD Landsat tiles over Mexico, requested by INEGI (National Institute of Statistics and Geography, Mexico). They will use these images to develop a new country-level Data Cube.
* Brian and the AMA team completed a 3-day Data Cube training session with Ken Mubea from the Global Partnership for Sustainable Development and Data (GPSDD). This training will allow GPSDD to be more active in the management of the Africa Regional Data Cube (ARDC) and support user requests from ARDC countries.
* CEOS Plenary Action 32-08 for the SEO to establish a group to explore the Digital Earth Africa implementation is on hold until the official announcement of the initiative.

Jonathon Ross (GA, SIT Vice Chair Team) thanked CEOS and the SEO for their work on ODC, CARD4L, and ongoing agency data provision, which were pivotal in working with stakeholders and acquiring funding for [Digital Earth Africa](http://www.ga.gov.au/digitalearthafrica).

1. **Working Group Reports**

**WGDisasters**

Simona Zoffoli (ASI, WGDisasters Chair) noted the following points from her written report:

* WGDisasters-11 took place in Athens, March 5-7, with broad CEOS member participation (25 attendees in person and 3 participants by teleconference) and substantial progress being made:
	+ There was an opportunity to hold a common reflection on the achievements, objectives and current and possible future WGDisasters activities.
	+ It was agreed to review and possibly update the Terms of Reference for the Working Group, considering as a reference the Sendai Framework for Disasters Risk Reduction. A draft may be presented at SIT Technical Workshop in September.
	+ It was agreed to update the GEO Community activity “EO 4 DRM” in the GEO Work Programme 2020-2022 under WGDisasters’ Chair responsibility.
	+ During a joint session with WGCapD, the two Working Groups discussed potential areas of cooperation on deliverables.

**WGClimate**

Joerg Schulz (EUMETSAT, WGClimate Chair) submitted a written report but was absent from SEC-248.

**WGISS**

Mirko Albani (ESA, WGISS Chair) noted the following points from his written report:

* WGISS is preparing for the WGISS-47 meeting, which will include dedicated sessions on FDA elements demonstration and technology, EO services in the cloud, and artificial intelligence and machine learning.
* There will be side meetings at SIT-34 on FDA and the GEO Knowledge Hub. Agendas will be drafted shortly.
* WGISS presented its activities to the Global Space-based Inter-Calibration System (GSICS) Data and Research Working Group (GDWG) during the GSICS Plenary meeting at ESA/ESRIN on 4-8 March. Potential synergies and cooperation opportunities were identified in the domain of CEOS Maturity Matrix and Data Discovery and Access (WGISS Connected Data Assets), and discussions will be continued in the following months.
* In collaboration with WGCV, two Data Cube prototypes (run by ESA and GA/CSIRO) are being used to access ACIX (16 sites), RadCalNet (4 sites) and LPV (3 sites) sites’ cal/val data.
* The Carbon Portal development team is looking into the possibility of supporting a case study on forest monitoring in the Mekong area, and a teleconference between the team and VAST-VNSC was held this week.
* WGISS is working with WGClimate on registering the ECV Inventory Version 2.0 datasets in IDN as first step for accessibility through the WGISS Connected Data Assets Infrastructure.
* WGISS will support the 4th GEO Data Technology Workshop, which will be hosted by UNOOSA in Vienna, Austria, 23-25 April 2019. Rob Woodcock (CSIRO, WGISS Vice Chair) will chair the CEOS organised session and participate in the 3rd Expert Advisory Group meeting.

Brian Killough (NASA, SEO) will attend the WGISS-47 meeting in Silver Spring, and has been working with Rob Woodcock on FDA topics. Mirko noted the GEO Knowledge Hub will be discussed at WGISS-47 as well.

**WGCapD**

Nancy Searby (NASA, WGCapD Vice Chair) noted the following points from the written report:

* WGCapD-8 was hosted by ISRO from 6-8 March in Dehradun, India, with great participation.
* There will be 13 WGCapD Deliverables in this year’s CEOS Work Plan, which is a large increase from last year.
* Work is ongoing with current WGCapD Deliverables, in particular the CB-37 white paper describing ways WGCapD can cooperate with capacity building networks supported by other entities, e.g., the UN. This will be presented at SIT-34 for discussion.
* Roscosmos has offered for one of their staff to join WGCapD.

**WGCV**

Cindy Ong (CSIRO, WGCV Chair) submitted a written report but was absent from SEC-248.

1. **Ad Hoc Team Reports**

**SDCG/GFOI**

Stephen Ward (SDCG SEC) noted the following from the SDCG written report:

* There will be a meeting focussed on biomass held the day prior SDCG-15, following strong interest from the GFOI community and space agencies in this topic. Additional information and details are in the written report.
1. **AOB**

**2019 CEOS Chair Initiative Update**

Lam Dao Nguyen (VAST-VNSC) reported:

* Additional Mekong region data from 2018 will be requested from data providers.
* Testing and validation of the VNSC-CNES forest algorithms are underway for the Mekong region.
* Validations of VNSC, CNES, and JAXA rice algorithms are being conducted across 7 provinces in Vietnam, with intercomparisons being undertaken.
* VAST-VNSC are developing a proposal for the GEO Amazon Cloud program.
* VAST-VNSC will be attending SIT-34 next month with a full report on the CEOS Chair Initiative.

**Agency Outreach**

Christine Bognar (NASA) suggested inviting CONAE’s new Executive Technical Director, Raúl Kulichevsky, to SEC-249 at SIT-34. This will be an opportunity for him to see how CEOS works and might encourage CONAE to engage more closely in CEOS. Other opportunities to engage should be considered as well.

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| **248-03** | SIT Chair to send an email to Raúl Kulichevsky inviting his attendance at SEC-249. | **22 March** |

Astrid-Christina Koch (COM) noted NSAU have been preparing a new satellite, and she has encouraged them to attend the CEOS Plenary in Vietnam.

1. **Next Meeting and Adjourn**

Kerry Sawyer (NOAA, SIT Chair Team) noted SEC-249 will be held prior SIT-34 at 9am on 2 April. A teleconference connection will be available.

Pham Anh Tuan (VAST-VNSC, CEOS Chair) closed the meeting.