**Minutes V1.0**

**250th CEOS SECRETARIAT MEETING**

Thursday 9 May 2019

Chaired by VAST-VNSC

**Participants**

**CEO:** Steven Hosford

**COM:**  Astrid-Christina Koch

**ESA:** Ivan Petiteville

**EUMETSAT:** Robert Husband

**GEO SEC:** Akiko Noda

**ISRO:** –

**JAXA:** Osamu Ochiai

Yukio Haruyama

**NASA:** Christine Bognar

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

**SEO:** Brian Killough

**SIT Vice-Chair Team:** Jonathon Ross, Flora Kerblat

**VAST-VNSC:** Pham Anh Tuan (Chair), Linh Phan, Vu Anh Tuan, Lam Dao Nguyen, Matthew Steventon, Stephen Ward

**WGCapD:** Prakash Chauhan

**WGClimate:** Jörg Schulz

**WGCV:**  –

**WGDisasters:** David Green

**WGISS:** Mirko Albani

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

Pham Anh Tuan (VAST-VNSC, CEOS Chair) welcomed everyone to CEOS SEC-250.

1. **Action Status**

Pham Anh Tuan (VAST-VNSC, CEOS Chair) noted that most open actions will be covered during the course of the meeting, but he called for any additional updates now. None were raised.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

* The requested extension to Steven’s CEO term was declined, and so he will step down from the CEO role following the adjournment of the 2019 CEOS Plenary. It is now urgent that a successor be identified.
* Regarding action **SIT-34-05** on the organisation of a CEOS side event at GEO Plenary, which calls for ideas to be submitted to the CEO, SIT Chair Team and SIT Vice-Chair Team, Steven reported that no submissions have been received to date. Submissions are still welcome up until the deadline of June 15. Brian Killough (NASA, SEO) reported that a submission is expected on Digital Earth Africa. Flora Kerblat (CSIRO, SIT Vice-Chair Team) reported that Argyro Kavvada (NASA) will submit a request for an EO4SDG (GEO) side event, through which CEOS will likely contribute, rather than through a separate CEOS-led SDG side event. Brian also noted that the SEO will submit a request for a CEOS exhibition booth.
* The Secretariat was in agreement that the virtual endorsement of Albrecht von Bargen (DLR) as WGClimate Vice-Chair by CEOS Principals needs to be coordinated with his endorsement by CGMS (at CGMS-47, 19-24 May). Jörg Schulz (EUMETSAT, WGClimate Chair) called for CEOS endorsement to be completed before CGMS-47, and Steven agreed.

1. **SIT Chair Report**

Steve Volz (NOAA, SIT Chair) reported:

* Study teams on the Working Group on Information Provision and Merged Ocean VC concepts are being formed. The SIT Chair shared draft charters with select agencies and asked them to name representatives to the study teams. Feedback has been received from a number of agencies. The study teams are expected to be finalised in the next two weeks.

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| **250-01** | Kerry Sawyer (NOAA, SIT Chair Team) to share with the CEOS Secretariat mailing list, the draft charters for the study teams being established to give further consideration to the Working Group on Information Provision and Merged Ocean Virtual Constellation concepts. | **COMPLETE** |

* The draft SIT-34 minutes have been distributed, and comments were received from numerous agencies. The deadline for agency feedback is tomorrow. The final version of the minutes will be released by the 24th of May. Kerry reported that some changes are being made to the actionees to rectify inaccuracies, and she recommended that everyone review the record for actions with near-term due dates.
* The SIT Chair Team did not reach out to the Virtual Constellations co-leads this month, so there are no reports.

1. **GEO SEC Report**

Akiko Noda (GEO Secretariat) reported:

* The GEO Data Technology Workshop (hosted in Vienna by UNOOSA, 23-25 April) yielded broad perspectives of the role that technology is playing in changing how Earth observations are used. Topics included Big Data, machine learning, artificial intelligence, and Analysis-Ready Data (ARD). Speakers provided a wide-ranging view of how these technologies are changing the way we work; highlighted the needs of the GEO community; provided an overview of commercial sector needs and applications; and discussed the social and legal impacts of such technologies.
* The Expert Advisory Group meeting concluded that the results-oriented approach for GEOSS is the correct direction.
* The 2019 GEO Symposium (Geneva, 27-29 May) is a milestone in the 2020-2022 GEO Work Programme development. Activity Leads will share their progress, knowledge and plans, and then discuss how to shape GEO’s direction for the next three years.

Akiko reminded the SDCG-GFOI team about the GFOI inputs for the 2020-2022 GEO Work Programme and about responding to the invitation to the GEO Symposium. Osamu Ochiai (JAXA, CEOS Lead for GFOI) confirmed that the SDCG/GFOI inputs will be submitted shortly, and someone from GFOI will attend the Symposium.

Jonathon Ross (GA, SIT Vice-Chair Team) thanked the GEO Secretariat for accepting the suggestion regarding the ethics discussion, and he reported that the Data Technology Workshop was very well received.

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* Brian, Analytical Mechanics Associates (AMA) and the Global Partnership for Sustainable Development and Data (GPSDD) will conduct a three-day Africa Regional Data Cube training session in Accra, Ghana, on May 22-24, 2019.
* **NOT FOR PUBLIC RELEASE:** Brian is working with Steven Hosford (ESA/CNES, CEO), Adam Lewis (GA, SIT Vice-Chair Team), and Steve Labahn (USGS) to review the GEO-Amazon proposals and provide feedback. There were 24 proposals received. 16 of 24 proposals plan to use CEOS Agency satellite data. Five of the proposals plan to use the Open Data Cube (ODC). Feedback will be given to GEO by May 15, 2019. Some proposals will likely require CEOS support, in relation to Data Cubes, near-real-time Himawari data access, FengYun (China) data access, and processing Sentinel-1/2 data. Most proposals had a good grasp of how to source the data they need.

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| **250-02** | Brian to share the initial assessments of the GEO-Amazon proposals with the SIT Chair Team. | **ASAP** |

* Regarding CEOS Plenary Action **32-08** on possible CEOS Agency contributions to Digital Earth Africa: the SEO is in communication with the Digital Earth Africa Leads (at GA) and is awaiting a clearer statement of requirements before making progress. This action remains in progress and open for now.

1. **Working Group Reports**

**WGDisasters**

David Green (NASA, WGDisasters Vice-Chair) noted the following points for SEC attention:

* New WGDisasters Terms of Reference will be presented for review at the 2019 SIT Technical Workshop.
* The WGDisasters Chair co-convened session NH6.1 (Application of Remote Sensing and Earth Observation Data in Natural Hazard and Risk Studies) at EGU (7-12 April).
* Session D.1.2 (Using Earth Observations to Deliver on International Risk Reduction Efforts) at the ESA Living Planet Symposium (13-17 May) was jointly proposed by CEOS and GEO.
* WGDisasters will participate in the Global Risk Assessment Framework launch session on May 16th (NASA with UNISDR).
* WGDisasters is planning to submit a side event application for the 2019 GEO Plenary and Ministerial.
* WGDisasters aided in drafting the EO4DRM GEO Community Activities for the next GEO Work Programme. Akiko Noda (GEO Secretariat) noted a preliminary input has been received from EO4DRM and this is now being worked into the overall programme. David noted there are parallel efforts in relation to the Sendai Framework for Disaster Risk Reduction that might also need to be integrated, and so further updates might be forthcoming.

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* UNFCCC SBSTA-50 will take place 17-27 June in Bonn, Germany. As anticipated, the UNFCCC Secretariat has asked for a CEOS/CGMS statement to be delivered on 17 June at the beginning of the session. The WGClimate Chair has agreed to draft the statement and will provide it for agency review as soon as possible. It has been added to the CGMS-47 Plenary (23-24 May) agenda and it is proposed that a virtual endorsement be carried out by CEOS in the same week. The statement can then be submitted in time for SBSTA-50. Jörg asked CEOS SEC Agencies to encourage their national delegations to support the statement, if possible.
* The WGClimate Chair will also participate in SBSTA-50, including the meeting between the SBSTA Chair and the scientific community on June 21.
* Meeting minutes from WGClimate-10 have been finalised and posted on www.ceos.org.
* The WGClimate Chair provided a presentation to WGISS-47, and a good discussion on the ECV Inventory and IDN, as well as potential future automation of ECV Inventory population followed.
* Next week, the WGClimate Chair will participate in a climate roundtable at the ESA Living Planet Symposium and will give a presentation on space agency contributions in support of the Paris Agreement, based on the white paper completed last year.
* WGClimate-11 will likely be held September 4-7 in Anchorage, Alaska.

**WGISS**

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

* There was a good turnout for WGISS-47 and it was a very productive meeting. WGCapD representatives also participated to discuss overlapping activities and potential new collaborations. The prototype carbon portal and its application to the CEOS Chair Initiative for forest monitoring in the Mekong Delta region was also discussed.
* The open source software and tools inventory now list more than one hundred items. A database implementation solution developed in coordination with the SEO was demonstrated during the WGISS meeting. The inventory will go live on the WGISS website before summer, allowing users to discover and access CEOS Agencies’ software tools and services.
* The Technology Exploration session at WGISS-47 included a dedicated item on FDA elements, and defined a way forward for WGISS activities on FDA along three lines:
  1. Make mature FDA services/tools/elements from CEOS Agencies discoverable/accessible through WGISS CDA (CEOS Work Plan Actions FDA-9, FDA-10, FDA-14);
  2. Pursue interoperability between FDA elements through a manageable number of possibly standardised interfaces (CEOS Work Plan Action FDA-8); initially address Data Cube interoperability (ODC, ESA HMDC & DCFS) and possibly follow-up/rely on standardisation in OGC;
  3. Showcases of FDA elements supporting CEOS/GEO initiatives.
* A dedicated WGISS-47 session on EO services in the cloud and artificial intelligence & machine learning provided preliminary input to address CEOS Work Plan Action DATA-15.

**WGCapD**

Prakash Chauhan (ISRO, WGCapD Chair) noted the following points from the written report:

* WGCapD presented at WGISS-47 and discussed continued collaboration on CEOS Work Plan deliverable FDA-5 to build awareness of future data architectures.
* Work is ongoing on the following WGCapD CEOS Work Plan deliverables:
  + CB-21-2019-2: Training calendar pilots are in development.
  + CB-28, CB-30: The release of the MOOCs on radar backscatter and SAR applications has been delayed from Q1 to Q3 2019 to release in conjunction with ESA’S Phi Week, to maximise attention and to not publish within the idle summer vacation time.
* Comments would be appreciated on CEOS Work Plan deliverable CB-37 (white paper describing approaches for capacity building networks, e.g. UN's, to work together). WGCapD provided this to SIT-34 for discussion and suggestions for improvement ahead of the deliverables due date of Q2 2019, or by end of June 2019. The paper can be found on the SIT-34 website. WGCapD is also working on a version for publication.

**WGCV**

Cindy Ong (CSIRO, WGCV Chair) was absent from SEC-250 and no written report was submitted. Kerry Sawyer (NOAA, SIT Chair Team) reported that Cindy sent an apology and will share a written report in the next few days.

1. **AHT Reports**

**SDCG-GFOI**

Osamu Ochiai (JAXA, CEOS Lead for GFOI) reported:

* GFOI Plenary was held April 8-11 in Mozambique. CEOS was represented by USGS and ESA. Country needs assessments and tools for National Forest Monitoring Systems were the focus.
* The GFOI Leads are working with the GEO Secretariat to submit inputs to the GEO Work Programme, and this will be completed very soon.
* SDCG is working on follow up to the Biomass Day and the actions identified to support coordination of the large investment in the new generation of biomass missions.
* The incoming SIT Chair (CSIRO/GA) has identified carbon and biomass as key topics and volunteered to host a biomass validation workshop in 2020.
* It is important that initiatives do not take global coverage and data policy for granted, so SDCG aims to have the GFOI Leads prepare an updated statement on the need for annual satellite data in support of forest reporting processes. SDCG also plans to update the now dated Space Data Strategy for GFOI, which was written in 2011 and led to the formation of the SDCG.
* The next SDCG meeting will be joint with LSI-VC and GEOGLAM as usual before SIT Technical Workshop (Anchorage, 4-6 September, hosted by USGS).

**SDG-AHT**

A written report was submitted by Flora Kerblat (CSIRO, SDG-AHT Team) on behalf of the co-leads. The report indicated two issues requiring attention from the Secretariat. Firstly, a reminder of the action **SIT-34-08**: *“Any agency that is ready and able to support one, two, three, any or all of the 6.6.1, 11.3.1, and 15.3.1 Indicators are asked to indicate interest to the Co-Leads of the SDG AHT”*. Secondly, the team is seeking more clarity on its future in the context of the proposed new Working Group on Information Provision.

1. **AOB**

**2019 CEOS Chair Initiative Update**

Lam Dao Nguyen (VAST-VNSC) reported that the preliminary work on rice has been validated, and the team is now moving to implement their process on the VNDC system and also apply it to Thailand, Cambodia, and Laos.

**ISRO 2020 CEOS Chair Priorities**

The ISRO 2020 CEOS Chair Team was not on the telecon. Prakash Chauhan (ISRO, WGCapD Chair) took an action to encourage their participation in the next teleconference.

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| **250-03** | Prakash Chauhan to encourage the participation of the ISRO 2020 CEOS Chair Team in the next CEOS SEC teleconference. | **SEC-251** |

**CEOS Newsletter #53 Plan**

Yukio Haruyama (JAXA/RESTEC) presented the plan for CEOS Newsletter #53 (circulated with the written reports and before the call via email). Yukio noted that the JAXA/RESTEC team will follow up with the identified contributors, and he made a call for any additional topics.

Christine Bognar (NASA) confirmed that she will ask the AC-VC co-leads and the COVERAGE team to provide an article along the lines of the status update presented at SIT-34.

1. **Next Meeting and Adjourn**

Pham Anh Tuan (VAST-VNSC, CEOS Chair) thanked everyone for attending. Noting that CEOS SEC-251 will be held on June 13, 2019, the meeting was adjourned.