**Minutes V1.0**

**267th CEOS SECRETARIAT MEETING**

Thursday 16 July 2020

Chaired by ISRO

**Participants**

**CEO:** Kerry Sawyer

**ESA:** –

**EUMETSAT:** Robert Husband, Paul Counet

**GEO SEC:** Doug Cripe

**ISRO:** Raj Kumar (Chair), Nitant Dube, Matthew Steventon

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

**NASA:** Karen St. Germain, Sandra Cauffman, Christine Bognar

**NOAA:** Chuck Wooldridge, Albert DeGarmo

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

Siqueira, Stephen Ward, George Dyke

**SEO:** Brian Killough

**VAST-VNSC:** Linh Phan

**WGCapD:** Lauren Childs-Gleason, Christine Mataya

**WGClimate:** Jörg Schulz, Albrecht von Bargen

**WGCV:**  Cindy Ong

**WGDisasters:** David Green, Dave Borges

**WGISS:** –

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

Raj Kumar (ISRO, CEOS Chair Team) welcomed everyone to the call and reviewed the agenda.

1. **CEOS Executive Officer (CEO) Resourcing**

Raj Kumar (ISRO, CEOS Chair Team) recapped the latest developments in connection with the communications to CEOS Principals, the dedicated CEOS SEC call on the topic, and the offer received from NASA to nominate Marie-Claire Greening, Ph.D. as CEOS Executive Officer for a two-year term, backed with the financial support needed to execute the role and taking up ESA’s offer to host Dr. Greening at ECSAT in the UK.

Raj suggested that CEOS SEC take the steps necessary to confirm this nomination, including making a start on the revision of the CEOS Executive Officer (CEO) Terms of Reference to allow a contractor to serve in the position.

Sandra Cauffman (NASA) noted that NASA is making this proposal to help CEOS in view of the fact that after multiple calls for nominations in more than a year, there are no other nominees. If CEOS accepts this proposal, this solution will provide an additional 1.5 years for CEOS to investigate new options for the resourcing of the CEO position, including the resource pooling concept. It also allows CEOS to use the time to identify a candidate to serve as Deputy CEOS Executive Officer (DCEO) to work with Dr. Greening and later take on the role of CEO after Dr. Greening.

Chuck Wooldridge (NOAA) thanked NASA for the proposal. He offered to work with a small group of people to review and propose revisions to the CEO Terms of Reference. Paul Counet (EUMETSAT) and Osamu Ochiai (JAXA) added their thanks and offered representatives to the group looking at the Terms of Reference (Robert Husband for EUMETSAT, Osamu for JAXA).

Adam Lewis (GA, SIT Chair Team) asked how this proposal needs to be communicated to the broader CEOS community, noting past feedback regarding transparency of the process.

It was confirmed that the proposal and revised Terms of Reference need to be agreed by a plenary meeting of CEOS. This could also be done via virtual endorsement or a special session at SIT Technical Workshop, if not at the 2020 CEOS Plenary meeting.

Sandra Cauffman suggested that the CEO Terms of Reference update be done as soon as possible to secure the CEO candidate. Karen St. Germain (NASA) noted that this update need not comprehensively cover all of the modifications that have been discussed recently, but rather, the document can just be modified to the minimum extent needed to accommodate a contractor supported by an agency. A more comprehensive review and revision can take place later, over the next year or so, to look at modifications around resource pooling, etc.

Chuck suggested the changes are more substantial than just specifying that a contractor can be appointed – there are specific issues in terms of the role and responsibilities of a contractor serving in the position as well as agency oversight and external representation matters that need to be considered. This will not necessarily be a quick fix, but he does agree that this revision process should begin immediately and can address the minimum required changes for now, with a more substantial revision to follow.

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| **267-01** | The team of volunteers noted below will be convened by the CEOS Chair to review and modify the CEO Terms of Reference (a CEOS Governing Document) so that Dr. Greening can be secured as a contractor to take on the CEO position, allowing for some overlap and a smooth transition with the incumbent, Kerry Sawyer. The team will also propose an approach for having the changes approved by CEOS as soon as possible (including outside of a usual meeting of the CEOS plenary, e.g., virtual endorsement).  The Terms of Reference document will be modified to the minimum extent needed to address the urgent need to secure the nominee now as a contractor. A more comprehensive review and revision will take place over the next 12-18 months, and may include modifications related to resource pooling, etc.  Team members: Sandra Cauffman, Brian Killough, Christine Bognar, Chuck Wooldridge, Kerry Sawyer, Robert Husband, Osamu Ochiai, Jonathon Ross. | **Report to SEC-268** |

1. **CEOS Executive Officer Report**

Kerry Sawyer (NOAA, CEOS Executive Officer) reported:

* CEOS 2020-2022 Work Plan:
  + Currently working with the SEO Team to populate the online Deliverables Tracking Tool with updated information;
  + Removed references regarding task resource requirements;
  + The final Work Plan will be sent out for virtual endorsement on July 17, following the review period that closes July 16;
  + A user guide and summary of responsibilities with regard to online Deliverables Tracking Tool will be prepared.
* Kerry sent a response on behalf of CEOS confirming willingness to co-host the web-conference (Global Networking Forum) with the International Astronautical Federation (IAF) / International Astronautical Congress (IAC) Earth Observation Committee on how Earth observations are showing changes (atmospheric, but others as well) due to the Coronavirus. She awaits a response.
* Updates to CEOS Mailing Lists:
  + The CEO, with concurrence from the CEOS Chair, will send personalised letters to all 61 CEOS Agencies asking for their review and confirmation of Principal and Contact information, as well as requesting any status changes to Agencies;
  + With the aim of encouraging broader Agency participation, the CEO will also ask Agencies to consider participating in the CEOS Working Groups, Virtual Constellations, and CEOS Plenary.

1. **SIT Chair Report**

Adam Lewis (GA, SIT Co-Chair) reported:

* SIT Technical Workshop Draft Agenda:
  + SIT Technical Workshop Draft v0.1 agenda circulated for CEOS SEC review on July 10. The SIT Chair welcomed feedback via email to sit-chair@lists.ceos.org or at CEOS SEC-267.
  + The agenda is driven by the objectives of CEOS Plenary and the sessions will be focused on coordination and preparation for the related items at Plenary.
  + The plan is, from a logistics point of view, for the opening and closing sessions to be similar to SIT-35 (formal), but looking for the rest of the sessions to be more relaxed.
* GEO Executive Committee Meeting:
  + The SIT Co-Chairs attended the 52nd meeting of the GEO Executive Committee on 7 and 8 July.
  + The GEO Knowledge Hub Implementation Plan was approved after a long period of debate and concern, particularly about its resourcing implications and possible duplication of current/planned activities.
  + The success of the GEO Knowledge Hub depends on Analysis Ready Data being made available as well managed collections in public / commercial cloud platforms. The Executive Committee will invite CEOS to provide an update on the CEOS ARD Strategy, including progress on the generation of 'analysis ready data' products by CEOS Agencies. This is a result of the references in the Canberra Ministerial Declaration calling on space agencies to strengthen their work in this area.
  + The Executive Committee agreed to postpone the next face-to-face Plenary meeting to 2021, to be held in South Africa. An 'extraordinary Executive Committee' meeting will be held in October/November to ensure critical GEO business is concluded. This meeting (or preparatory meetings) will be open to all Members and POs to ensure their voice is heard on major items of business like the GEO Work Programme. As there will not be a Plenary, it is not clear that there will be a forum or opportunity for presentation of a "CEOS Statement".
* Virtual Constellation (VC) Reports to CEOS SEC Meetings:
  + The opportunity to report to SEC meetings was well received by the VC Leads, based on the feedback the SIT Chair received during our consultation calls.
  + As such, the SIT Chair proposes a second round of reports from the VCs starting at SEC-268.

1. **GEO SEC Report**

Doug Cripe (GEO Secretariat) reported:

* The GEO Knowledge Hub Implementation Plan was approved by the GEO Executive Committee. The next step is to develop a more comprehensive implementation plan that will cover a number of points where more information was requested by the Executive Committee. There is a desire to work closely with CEOS on ARD and Open Data Cube, specifically cloud-based solutions that can be scaled to users’ needs.
* The GEO Plenary has been postponed, tentatively to October/November 2021 in South Africa. In the absence of a GEO Plenary this year, the GEO Secretariat was asked to work with the Executive Committee to look at alternatives. A shortened, more targeted version of the GEO Symposium has been proposed, with dates yet to be decided.
* GEO and Google Earth Engine have announced funding for 32 projects. More information can be found on the website [here](http://earthobservations.org/article.php?id=447). Doug noted that GEO may want to work with CEOS on provision of data that is not yet available on Google Earth Engine.

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* The annual IGARSS conference (planned for July in Hawaii) was moved to a virtual meeting (September 28 to October 2). Brian Killough (NASA, SEO) is leading a session with Andreia Siqueira (GA) on Open Data Cube and Analysis Ready Data. Seven papers are planned for presentation. Five other related papers were transferred to other sessions. The work of CEOS is getting significant attention in these global conferences.
* The SEO completed a report on Open Data Cube contributions to the SDGs on June 22. This report was briefed to the SDG-AHT in a recent teleconference. Work continues on these algorithms to introduce more interoperable data and build training materials.
* Using donated Google Cloud credits, the SEO has demonstrated the Open Data Cube connected to Google Earth Engine satellite datasets. We have created some unique Jupyter notebook algorithms for interoperable products using Landsat-8, Sentinel-1 and Sentinel-2. These include water detection, cloud masking, and mission coincidences.

1. **Working Group Reports**

**WGDisasters**

David Green (NASA, WGDisasters Chair) noted the following:

* CEOS WGDisasters Chair Team held an outreach meeting with the United Nations (UN) Global Geospatial Information Management (GGIM) Working Group on Geospatial Information and Services for Disasters (WG-Disasters) on July 9, 2020. WG-Disasters Co-Chairs Shoichi Oki and Simone Lloyd attended. Collaboration in terms of design and implementation of scenario-based exercises on different hazards was discussed. WGDisasters Secretariat Dave Borges (NASA) serves as the CEOS WGDisasters Liaison to GGIM WG-Disasters.
* The Generic Recovery Observatory Demonstrator Team continues to meet regularly. The Team is developing a Demonstrator proposal for review at SIT Technical Workshop.
* The GEO/LEO/SAR Flood Pilot Team continues to meet regularly. The Team is developing a Pilot proposal for review at the September 2020 CEOS SIT Technical Workshop. Four case studies have been identified. The Flood Pilot Team is working closely with COAST and WGISS leadership to identify integration opportunities and shared geographical focus areas.
* The Strategic Observation Strategy is now in a mature state. This will be presented in the coming months.
* The CEOS SIT Chair Team has requested that WGDisasters consider a new Wildfire Pilot effort. An exploratory meeting was held on June 24, 2020 to bring together interested parties and discuss feasibility. A draft proposal has been shared with the WGDisasters Chair and Vice Chair for review. Final recommendations are forthcoming, likely around SIT-36 in March 2021.
* Upcoming meetings of relevance include WGDisasters-14 (virtual, early September 2020) and the GFDRR Understanding Risk Forum (virtual, 30 November – 4 December 2020).

Raj Kumar (ISRO, CEOS Chair Team) asked whether a particular area of interest has been selected for the Wildfire Pilot proposal. David reported that this is still under consideration, and the team is looking at two types of areas in particular: those that are historically impacted by wildfires and those that in recent years have emerged as new risk areas (these cases may require new data sources and should be investigated).

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* ECV Inventory #3 is ready for publication. Letters and news/advertisement messages are being written and CEOS SEC Action 238-07 (*WGClimate Chair to work with the SEO to ensure climatemonitoring.info is appropriately advertised on ceos.org and via CEOS social media*) will also be addressed.
* The delivery of the Cycle 3 Gap Analysis and Coordinated Action Plan has moved to Autumn 2020, but should still be ready for approval at the 2020 CEOS Plenary.
* WMO has completed their Use Case Gathering Tool. The tool will now be connected to <http://climatemonitoring.info/>. By the SIT Technical Workshop, WGClimate should be able to provide a first overview of the use cases received. WGCapD and WGDisasters will be asked for potential use cases.
* The Greenhouse Gas (GHG) Task Team continues to improve the GHG Roadmap, with a focus on Annex C (Work Plan). WGClimate discussed with the CGMS WGII Chair and rapporteurs: the process of involving CGMS Working Groups in the GHG Task Team; a proposal will be presented at the CGMS-48 Plenary in late August. Regarding endorsement of the GHG Roadmap, at both Plenaries we will strive for an endorsement of the objectives, the process, and the resource needs for the Task Team, with the understanding that the Roadmap is a living document, in particular the Annex C Work Plan.
* WGClimate-13 is planned between the SIT Technical Workshop and CEOS Plenary as a virtual meeting.

**WGISS**

Robert Woodcock (CSIRO, WGISS Chair) was unable to attend the meeting due to a conflict with the CEOS-COAST meeting taking place at the same time. Rob sent his apologies in advance along with a written report, to which he directed CEOS SEC for an update on WGISS activities.

**WGCapD**

Christine Mataya (NASA, WGCapD) reported on behalf of Nancy Searby (NASA, WGCapD Chair):

* Completed WGCapD website updates [here](http://ceos.org/ourwork/workinggroups/wgcapd/), including new content on the landing, meetings, and resources pages.
* Completing updates and restructuring of the WGCapD mailing lists to more effectively communicate activities and training opportunities.
* ISRO recently completed a webinar on remote sensing for crop monitoring and NASA’s LCLUC Program held a webinar on oil palm plantation mapping with SAR and Landsat.
* The WGCapD Chair and Vice Chair are participating in the GEO Working Group on Capacity Development (CD-WG) meetings and are co-chairing the subgroup focused on dissemination events and monitoring, evaluation, and impact assessments.
* Holding a second round of four quarterly regional calls (Africa, Americas, Asia-Oceania, Europe) over the weeks of September 21 and 28, 2020.
* Preparing potential side event ideas to submit for consideration in advance of the CEOS SIT Technical Workshop. The proposed topics cover: facilitating a discussion on how CEOS Working Groups organise themselves to identify and collect best practices and tips for subsequent dissemination; and organising an information sharing event for Working Groups that provides tips, effective approaches, and key questions to consider when developing and delivering their own training sessions.

**WGCV**

Cindy Ong (CSIRO, WGCV Chair) reported:

* Currently holding WGCV-47 virtually, which is going well.
* CEOS Work Plan Deliverables are progressing well, apart from those that depend on field work.
* WGCV has just finalised its peer review of the CARD4L self-assessments from USGS for their Landsat Collection 2 Surface Reflectance and Surface Temperature products. The products were confirmed to reach the CARD4L ‘Threshold’ level.

1. **AOB, Next Meeting, Adjourn**

*55th CEOS Newsletter*

Yukio Haruyama (JAXA) reported that all articles have now been received. Editing is currently underway. He thanked everyone for their contributions. Final publication is expected in early August.

*2022 CEOS Chair*

Raj Kumar (ISRO, CEOS Chair Team) noted that the CEOS Chair has asked the European permanent CEOS Secretariat agencies for their guidance regarding a nomination for the 2022 CEOS Chair, which based on the usual geographic rotation, is expected to come from the Europe/Africa region. The CEOS Chair is still awaiting a response.

*Meeting Close*

Raj Kumar (ISRO, CEOS Chair Team) thanked everyone for attending. CEOS SEC-268 will be held on August 27.

The plan for CEOS SEC teleconferences/meetings leading up to the 2020 Plenary is as follows (typically Thursday):

SEC-268: August 27, 2020

SEC-269: September 2020 (alongside the 2020 CEOS SIT TW)

SEC-270: October 1, 2020

SEC-271: October 2020 (alongside the 34th CEOS Plenary)

Matt Steventon (Secretariat, CEOS Chair Team) asked for feedback on the necessity of the currently planned SEC-269 meeting (originally a face-to-face meeting), given the virtual SIT Technical Workshop and its proximity to both SEC-268 and SEC-270. Raj suggested that for now the meeting be retained. No other comments were heard.