**Minutes V1.0**

**264th CEOS SECRETARIAT MEETING**

Thursday 9 April 2020

Chaired by ISRO

**Participants**

**CEO:** Kerry Sawyer

**ESA:** Ivan Petiteville

**EUMETSAT:** Robert Husband

**GEO SEC:** Doug Cripe

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

Steventon, Santhi Sree, RP Singh

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

**NASA:** Sandra Cauffman, Christine Bognar, Paula Bontempi

**NOAA:** Steve Volz, Chuck Wooldridge, Albert DeGarmo

**OSVW-VC:** Paul Chang

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

Ward, Andreia Siqueira

**SEO:** Brian Killough

**VAST-VNSC:** –

**WGCapD:** Nancy Searby

**WGClimate:** Jörg Schulz

**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. He commended the SIT Chair Team on their execution of SIT-35, which was very successful under difficult circumstances. He noted the apparent increase in participation due to there being no travel requirements.

Raj also reviewed the outstanding actions. Adam Lewis (GA, SIT Co-Chair) reported that Action **263-01** is underway and should be closed soon. Regarding CEOS Plenary Action **33-05,** Kerry Sawyer (NOAA, CEOS Executive Officer) noted that Mark Dowell (COM) has been working with her to define additional Carbon Strategy-related items for the CEOS Work Plan. This action will be closed.

1. **Global Tropical Cyclogenesis Prediction using Scatterometer Observations**

Raj Kumar (ISRO, CEOS Chair Team) reported on a proposal for a collaborative CEOS project with connection to the CEOS Chair Initiatives:

* The CEOS Chair wishes to propose a CEOS collaborative project under the umbrella of the CEOS Chair Initiatives focused on tropical cyclones, in particular investigating and tracking their early stages (cyclogenesis) using scatterometer data from multiple agencies.
* ISRO has done some work for the Indian region and have preliminarily explored the possibility of expanding globally with NOAA.
* ISRO would like to pitch this as a collaborative project for CEOS, inviting all agencies to contribute near-real-time data for this purpose.
* A one page proposal has been written. This will be shared with CEOS SEC for more information and consideration.

Ivan Petiteville (ESA) asked if the OSVW-VC has been involved in the development of this proposal so far. Raj replied that OSVW-VC can certainly look at the proposal from their perspective also.

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| **264-01** | CEOS Chair Team to share the one-page proposal for a CEOS collaborative project on investigating and tracking the early stages of tropical cyclones (cyclogenesis) using scatterometer data from multiple agencies. A follow up discussion will be scheduled for SEC-265. | **ASAP to allow further discussion at SEC-265.** |

1. **CEOS Executive Officer – Effort to Identify Successors**

Sandra Cauffman (NASA) discussed the proposal raised in past meetings (including SIT Technical Workshop 2019, SIT-35, SEC-263) for CEOS to consider two strategies: to establish a mechanism through which CEOS Agencies can pool resources to help fund the CEOS Executive Officer (CEO) position, and for CEOS to be open to the possibility of having candidates for executive officer who could be a CEOS Agency representative or a qualified individual who would be a contractor acceptable to CEOS.

* It is estimated that the travel budget for the CEOS Executive Officer is approximately 100K USD for the two-year term. This is one area where agencies could help share the cost.
* Regarding the second suggestion (that CEOS be open to having a qualified contractor serve in the role), NASA received feedback against this idea, suggesting that it would be best to have a CEOS Agency representative as CEO. This feedback is noted; however, the lack of alternative options was also acknowledged.
* The question of whether pooling resources is feasible remains to be answered. CEOS needs to start working to identify these resources and find candidates for the pooled-resource scenario (or otherwise).

Sandra noted that CEOS Agencies that are not represented in the CEOS Secretariat may also want to be part of the effort. It was suggested that the CEOS Chair reach out for further input.

On the pooling mechanism, Brian Killough (NASA, SEO) noted some discussions he has had with the GEO Secretariat regarding the use of the GEO trust to fund certain roles in the community (e.g., GEOGLAM Secretariat, GEO-LDN Secretariat). This mechanism might be able to be applied to CEOS as well (some issues remain to be navigated, such as the need for a corresponding GEO project).

Adam Lewis (GA, SIT Co-Chair) suggested that the main concern is to ensure the process is clear and transparent for CEOS Agencies. He added that CEOS might need to be flexible in its approach, perhaps implementing a joint agency-contractor approach to start and varying levels of responsibility as time goes on.

Doug Cripe (GEO Secretariat) noted the precedence of the GEO trust fund supporting a consultant for GEO-LDN. He confirmed it is a tried and tested mechanism.

Ivan Petiteville (ESA) also noted past examples of CEOS Agencies working together bilaterally to support the CEO position (e.g., Steven Hosford was supported by CNES and ESA).

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| **264-02** | ISRO CEOS Chair Team to work with the NASA CEOS SEC team to communicate to the broader CEOS community the proposal regarding the establishment of a mechanism through which CEOS Agencies can pool resources to help fund the CEO position, and to consider having an executive officer who could be a CEOS Agency representative or a qualified person who would be a contractor acceptable to CEOS. The communication should seek support/feedback for these proposals, as well as offers to contribute. | **ASAP** |

1. **CEOS Executive Officer Report**

Kerry Sawyer (NOAA, CEOS Executive Officer) reported:

* There is no change to the status of the CEOS Work Plan. A draft is still targeted for April 15, for review by CEOS Entities. A version for virtual endorsement is expected by May 15. The online CEOS Deliverables Tracking Tool will also be updated.
* Kerry sent an email to the CEOS community on March 27 regarding the request from the GEO Secretariat for GEO Members and Participating Organizations (POs) to nominate individuals to participate in the four GEO Working Groups that were created under the GEO Engagement Priorities Coordination and GEOSS Data, Information and Knowledge Resources Foundational Tasks of the 2020-2022 GEO Work Programme. The four Working Groups are: Capacity Development Working Group (CD-WG), Climate Change Working Group (CC-WG), Disaster Risk Reduction Working Group (DRR-WG), and the Data Working Group (Data-WG). The expected workload is 3-5% of full-time, with approximately six phone calls of no more than 2 hours each and no additional travel required. Per a decision from the GEO ExCom, POs will be limited to two participants per WG.
* Kerry has requested two actions of the CEOS community:
  + Identify experts to participate in the four GEO Working Groups on behalf of CEOS. As discussed during the SIT-35 meeting, we believe representatives from WGCapD, WGISS, and WGDisasters would be best suited to participate in the CD-WG, Data-WG, and DRR-WG, respectively, but welcome any interested individuals. Please provide the name and email address, along with the name of the Working Group for which the person would like to participate to the CEO (kerry.sawyer@noaa.gov) and SIT Chair Team Representative (jonathon.ross@ga.gov.au) by 15 April 2020. The CEOS Chair will prepare one nomination message for all Working Groups.
  + Ask any CEOS Agencies that will be nominating representatives to participate in the WGs on behalf of their parent agency or member country to please inform CEOS leadership.

Kerry thanked Jörg Schulz (EUMETSAT, WGClimate Chair) for his nomination already received for the CC-WG.

Sandra Cauffman (NASA) noted that NASA has some candidates on behalf of CEOS. She will email Kerry with the names.

1. **SIT Chair Report**

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

* **Action 263-01:​** Adam is following up with Chuck Wooldridge and Steve Volz (NOAA) to finalise the draft response to the Intergovernmental Oceanographic Commission on the Decade of Ocean Science and aims to circulate it for review by CEOS SEC next week.
* **Action CEOS-33-13:​** *All Virtual Constellations to review, update, and revise their respective Terms of Reference, as appropriate.* The SIT Chair Team notes that some VCs have already recently updated their Terms of Reference and would appreciate it if they simply confirm that they are comfortable with what is already in place. ​The SIT Chair has also sent a reminder to the VC Leads.
* The draft decisions and actions from SIT-35 are [here](https://docs.google.com/document/d/1m9EFNalCntiESe68_-MhZa9ADn5x_vesd%20wdGOPQsSgo/edit). These have been available to the community for review since the SIT-35 meeting. Final SEC feedback is requested by COB (Canberra time) on April 14, after which the SIT Chair Team will release the decisions and actions to the community as a final version.
* The draft SIT-35 minutes are [here](https://docs.google.com/document/d/1O9rX5Gfz7lVvr_2Vq2SHfoPa5sdovAViiFJ%209nrXob28/edit?usp=sharing) for any urgent CEOS SEC feedback within one week (by COB Friday April 17). Following this review period, an updated draft will be circulated to the broader SIT-35 participant list. CEOS SEC will have another opportunity to edit the minutes in detail during the broader review cycle in parallel with the rest of the CEOS community.
* The deadline for feedback on the ​*CEOS Analysis Ready Data – Involving the Private Sector*​ paper is April 17.
* The SIT Chair Team conducted a post-meeting survey on SIT-35. Some key findings are summarised in the written SIT Chair report for SEC-264.

Alex Held (CSIRO, SIT Co-Chair) noted that some survey responses commented that perhaps another day could have been added to ease the time restrictions.

Alex also reminded CEOS SEC of the action from SIT-35 to nominate SDG-AHT subgroup leads. Ivan Petiteville (ESA) suggested sending a message to the whole CEOS community with a reminder. Flora Kerblat (CSIRO, SDG-AHT) noted that a reminder was sent to the *ad hoc* team. Alex will send a reminder to the whole CEOS community.

1. **Ocean Surface Vector Wind Virtual Constellation (OSVW-VC) Report**

Paul Chang (NOAA, OSVW-VC Co-Lead) reported on behalf of the OSVW-VC Leads:

* Early on, the focus of the VC was advocating for open and near-real-time data access and utilisation, and coordination of upcoming missions.
* Along the way, the VC tried to more closely engage with the International Ocean Vector Winds Science Team (IOVWST) to leverage the efforts of that group and give them a connection to CEOS (around topics like generation of climate data records, cal/val standards, constellations).
* These efforts to engage IOVWST didn't come to fruition as planned, so the VC Co-Leads are reconsidering the way forward for the VC’s engagements. They are now planning to increase connections to WGClimate and WGCV in support of climate data record curation. In parallel, the VC plans to come up with a new document detailing the optimum form of a future constellation.

Raj Kumar (ISRO, OSVW-VC Co-Lead) agreed that engagement with the IOVWST was less frequent. He added that WGClimate and WGCV have some existing avenues of work that look promising for collaboration.

1. **GEO SEC Report**

Doug Cripe (GEO Secretariat) reported:

* The GEO Health Community of Practice had a teleconference last Friday focused on COVID-19 and what can be done with EO in response (e.g., correlating outbreaks with weather). Over 100 people participated. Due to the positive response, another teleconference is planned for today and possibly weekly going forward. More information is available [here](http://www.geohealthcop.org/).
* Members of the GEO community have been invited by the GEO Secretariat to share EO use cases for COVID-19 monitoring, which will be shared through the website and other channels and support a dedicated side event planned for GEO Week 2020.
* The GEO Symposium will be held virtually, June 15-19. More details will be forthcoming.

Kerry Sawyer (NOAA, CEO) questioned whether the virtual GEO Symposium memo has been distributed to the whole community yet. Ivan Petiteville (ESA) confirmed that it has been approved and sent to the GEO Programme Board. Doug confirmed that the meeting will definitely be held virtually.

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* The SEO is working with WGISS to explore options for a new CEOS data testing and prototyping hub that will use Jupyter Notebooks and the Open Data Cube. Such a concept will also be ideal for testing CEOS ARD (LSI-VC task), supporting the COAST initiative, and supporting Jupyter Notebook training (WGCapD deliverable).
* The "CEOS External Request Process Paper" team released a first draft of the paper for the SIT-35 meeting. Representatives from NASA, NOAA, GA, ESA, ISRO, EC and JAXA are on the team. Progress continues on this task and a second draft will be ready for the SIT Technical Workshop.

1. **Working Group Reports**

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* He appreciates and welcomes further collaboration between WGClimate and OSVW-VC.
* Version 3 of the ECV Inventory is close to publication but has been slightly hampered by COVID-19 reducing the availability of contractors working on it. Action **238-07** will be addressed the moment we know a date.
* Work continues on the ECV Inventory Gap Analysis Report and Action Plan. A version for review should be available for the rescheduled WGClimate-12 (May 5-7).
* Interaction with GCOS has increased following SIT-35. GCOS will participate in WGClimate-12 to discuss requirement setting and the GCOS Status Report.
* Gratefully received an offer from NASA to provide an alternate (Wenying Su) for WGClimate in the GEO Climate Change Working Group (CC-WG). The confirmation will be forwarded to the CEO by April 15 after concurrence from WGClimate.
* WGClimate-12 has been rescheduled as a virtual meeting from 5-7 May 2020. An agenda and technical guidelines will follow soon.
* WGClimate-13 is planned between the SIT Technical Workshop and CEOS Plenary (TBC).

**WGDisasters**

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

* WGDisasters is updating the CEOS Disaster Risk Management Observation Strategy. This is the document that led to the establishment of WGDisasters in 2013. The WG intends to submit the new document for review at SIT Technical Workshop and endorsement at CEOS Plenary.
* Development continues on the GEO/LEO/SAR Flood Pilot. It will explore the feasibility of integrating LEO-GEO optical with multi-frequency and multi-sensor SAR flood observations. During the side meeting held before WGDisasters-13, strong support in the form of relevant data sharing and case study formulation was voiced by a number of WGDisasters member agencies.
* WGDisasters continues to attend and contribute to the CEOS-COAST teleconferences, focusing on anthropogenic impacts of coastal disasters, and identifying integration opportunities with the GEO/LEO/SAR Flood Pilot.
* WGDisasters is interested in contributing to the GEO Working Groups. David Green has been nominated by NASA to serve as the CEOS representative to the new GEO DRR-WG.
* Both wildfires and COVID-19 have been the focus of discussions recently. Wildfires will likely be revisited shortly. WGDisasters has been engaged with the GEO Health Community of Practice on COVID-19. Various groups, including WGDisasters, are advocating for joint meetings between the health and disaster-related communities.

**WGISS**

Rob Woodcock (CSIRO, WGISS Chair) was unable to participate. A written report was received.

**WGCapD**

Nancy Searby (NASA, WGCapD Chair) noted:

* The WGCapD-9 annual meeting took place virtually March 10-12, guided by the theme of “Identifying Opportunities for Synergies and Innovation”. More than 30 participants consistently attended each session, with a total of 57 meeting registrants. The meeting report has been drafted and is in review.
* Space Capacity Development Advisory Board (SCDAB): working to compile a document that outlines ongoing efforts within the nexus of EO and capacity development related to several UN SDGs (2: Zero Hunger, 7: Affordable and Clean Energy, 5: Gender Equality, 4: Quality Education, and 11: Sustainable Cities and Communities).

**WGCV**

Cindy Ong (CSIRO, WGCV Chair) reported:

* In view of the worldwide unprecedented situation, WGCV has decided to make WGCV-46 a virtual meeting. This will be a much scaled-down meeting. The dates are still being determined.
* WGCV and WGISS meetings in September were to be hosted by ROSCOSMOS, however it was confirmed yesterday that this can no longer be accommodated due to COVID-19.
* There is renewed interest from OSVW-VC and ISRO to revisit collaborative efforts on the quality control of microwave scatterometry for OSVW. A virtual meeting is planned.

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

Raj Kumar (ISRO, CEOS Chair Team) reported that there is still no decision on whether CEOS Plenary will go ahead as planned. The CEOS Chair Team will revisit the situation and report back in around two weeks.

Raj thanked everyone for attending. CEOS SEC-265 will be held on May 14. The plan for CEOS SEC teleconferences/meetings leading up to the 2020 Plenary is as follows (typically Thursday):

SEC-265: May 14, 2020

SEC-266: June 18, 2020

SEC-267: July 16, 2020

SEC-268: August 27, 2020

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

SEC-270: October 1, 2020

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