**Minutes V1.0**

**238th CEOS SECRETARIAT MEETING**

Thursday 28th June 2018

Chaired by COM

**Participants**

**CEO:** Steven Hosford

**COM:** Astrid-Christina Koch, Michael Berger, Mark Dowell, Matt

Steventon

**ESA:** Ivan Petiteville

**EUMETSAT:** Robert Husband

**GEO SEC:** Akiko Noda

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

**NASA:** Christine Bognar

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

**SEO:** Brian Killough

**SIT Vice-Chair Team:** Alex Held, Jennifer Zhu, Jonathon Ross

**USGS:** Jenn Lacey

**VAST:** Pham Anh Tuan, Linh Phan, Mai Thu

**WGCapD:** Senthil Kumar

**WGClimate:** Jörg Schulz

**WGCV:**  Kurt Thome

**WGDisasters:** –

**WGISS:** –

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

Mark Dowell (COM, CEOS Chair Team) welcomed everyone to CEOS SEC-238.

Matt Steventon reported that action 234-03 has been closed via email, with the sharing of the list of participants for the GEOGLAM User Requirements Workshop. He noted that all other open actions will be covered under their respective sections.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

CEOS Membership Enquiries:

* + The CEO received a letter from the United Arab Emirates Space Agency enquiring about CEOS membership on June 7. Several emails have been exchanged since, and a formal CEOS membership request addressed to the CEOS Chair should come shortly. Once the letter is received, it will be discussed at CEOS SEC and a decision will be taken on whether to invite the UAE Space Agency to present their request for CEOS membership at the 2018 CEOS Plenary.
  + National Institute of Environmental Research (NIER, South Korea): renewed contact with NIER was made on June 28. Steven reported that their letter is quite advanced, and will likely be sent to the COM CEOS Chair Team before SEC-239.
  + The New Zealand Centre for Space Science Technology (CSST) has been informed that it would not be eligible for CEOS Associate status in line with the discussion at SEC-237. They have indicated a willingness to participate in CEOS Working Group activities. The CEO has provided links to information on CEOS WG/VC activities and remains available to help CSST identify which groups might be of interest.

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| **238-01** | CEOS Chair Team to ensure there is an agenda item for SEC-239 on CEOS membership requests. | **SEC-239** |

Freshwater from Space Workshop

Discussions have been restarted among the workshop leads: Selma Cherchali, Alex Held and Arnold Dekker. After some reworking of the workshop programme, a Programme Committee has been established and will meet via teleconference shortly (before July 13) to finalise the dates (now likely week of November 12, in the Netherlands), review and update the agenda, identify the main workshop contributors and the best means to solicit them, and identify additional targeted workshop participants.

Next CEO

After discussion with the CEOS Chair and SIT Chair earlier in the week, Steven proposed opening an internal position in several agencies simultaneously. Steven took an action to email SEC with a description of this proposal to solicit comments/feedback.

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| **238-02** | CEO to describe by email to SEC the proposal for the CEO position to be opened to several willing agencies simultaneously. | **July 13** |

GEO Plenary and COP Representation

CEOS needs to identify its delegation to GEO Plenary by the end of July. Steven asked for anyone anticipating participation to please let him know before July 13. Jonathon Ross (GA, SIT Vice-Chair Team) confirmed that he is planning to attend, but he was not able to confirm whether he would be part of the CEOS delegation.

Linh Phan (VNSC/VAST) confirmed that Pham Anh Tuan (VNSC/VAST) will be going to GEO Plenary. The CEO took an action to follow up whether Director Tuan is happy to lead the CEOS delegation, and to confirm the necessary responsibilities. Steven will also confirm the same for COP-24 (including all aspects related to representation by the Vietnamese national delegation at the SBSTA meeting – including the presentation of the CEOS Statement).

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| **238-03** | Anyone planning to attend GEO Plenary to notify the CEO as soon as possible. | **July 13** |
| **238-04** | CEO to follow up whether Director Tuan (VNSC/VAST) is happy to lead the CEOS delegation to GEO Plenary, and to confirm the necessary responsibilities.  CEO to also confirm the same for COP 24 (including all aspects related to representation by the Vietnamese national delegation at the SBSTA meeting – including the presentation of the CEOS Statement). Steven to copy WGClimate Chair Jörg Schulz on the email. | **July 13** |

1. **SIT Chair Report**

Kerry Sawyer (NOAA, SIT Chair Team) reported:

CEOS 2018 SIT Technical Workshop

* The formal invitation letter was sent on June 25.
* Meeting registrations are due by August 24 (online registration is now open; accommodation room blocks will expire July 31 or August 10, depending on the hotel). Please refer to the logistics package for details (also on the SIT Technical Workshop website). There will be no extensions to any of the dates.
* Side meeting requests must be submitted by July 31.

VC/WG Day and VC/WG/AHT Teleconferences

A proposed agenda for the day has been shared with VCs, WGs, and AHTs in preparation for the upcoming VC/WG/AHT tag-up teleconferences with the SIT Chair. The teleconferences will have a different format for this second round – 90-minute thematic teleconferences with multiple entities, as follows:

* Oceans VCs
* WGCapD/WGDisasters/SDG AHT
* AC-VC/P-VC/WGClimate
* WGISS/WGCV
* LSI-VC/SDCG/GEOGLAM/FDA AHT

Attendance at the VC/WG Day will be at the approval of the SIT Chair Team to ensure the discussions are focused on topics relevant to the VCs and WGs.

Steve Volz (NOAA, SIT Chair) stressed the importance of the upcoming teleconferences for ensuring a productive VC/WG Day in September. He encouraged all attendees to review the draft agenda and supporting materials and come ready to discuss on the teleconferences.

GEO Matters

Kerry reported that SEC action 237-01 has not yet been discussed with Pascal Lecomte, and the due date will be shifted to SEC-239.

Alex Held (CSIRO, SIT Vice-Chair) and Kerry advised that they will be attending the upcoming GEO ExCOM meeting.

Steve Volz reported that the recent GEO Programme Board discussions were quite productive. He noted that Gilberto Câmara (new GEO Secretariat Director) is proposing a number of significant changes within GEO, which will impact CEOS – as the main provider of space data to GEO. The GEO ExCOM meeting will prove to be important as a result.

Mark Dowell (COM, CEOS Chair Team) asked whether Gilberto Câmara is planning to attend CEOS Plenary. Akiko Noda (GEO SEC) confirmed that Gilberto intends to participate in both CEOS Plenary and SIT Technical Workshop.

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| **238-05** | CEOS Chair Team/SIT Chair Team to formally confirm Gilberto Câmara’s attendance at SIT Technical Workshop and CEOS Plenary. | **SEC-239** |

1. **GEO SEC Report**

Akiko Noda (GEO SEC) reported:

Over 150 people participated in the GEO Symposium (11-12 June), which included sessions on: opportunities for integration across the GEO engagement priorities; challenges and opportunities for data sharing and data management; addressing gaps in *in situ* terrestrial observations; transformative digital technologies; regional coordination; engaging the commercial sector in the GWP; and a Programme Board round table.

Climate Workshop (13 June)

The workshop demonstrated GEO’s convening power, with 108 people in attendance. GEO succeeded in inviting representatives from key players including UNFCCC, IPCC, WMO, GCOS and CEOS. The workshop identified that GEO could also contribute to the areas of adaptation and loss & damage.

Mark Dowell (COM, CEOS Chair Team) reported that CEOS was well represented at the workshop. As anticipated, a lot of emphasis was on areas where there is thought to be a gap for space agencies – in particular around adaptation, mitigation, and loss and damage. Mark suggested that it would be good to develop a cohesive CEOS strategy for these points.

9th GEO Programme Board Meeting (14-15 June)

* During the meeting, the incoming GEO Secretariat Director, Gilberto Câmara, partially addressed his vision of a ‘results-oriented GEOSS’.
* There was substantial discussion on how to place regional GEOSS’ in the overall GEO Work Programme. This will be a key topic in the coming months.

Osamu Ochiai (JAXA) reported that the Programme Board discussion was useful. Sub-group 1 will summarise the lessons learned from the Climate Workshop, and the outcomes will be discussed at the next Programme Board meeting. Osamu added that climate is a cross-cutting domain where GEO needs to play a greater role, and a recommendation from the workshop was that GEO needs to consider a climate coordination mechanism cross-cutting all GEO Flagships and Initiatives.

1. **Working Group Reports**

**WGDisasters**

Simona Zoffoli (ASI, WGDisasters Chair) was unavailable for SEC-238. An apology and written report were submitted in advance of the call.

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* Since SEC-237, all ECV Inventory reports were endorsed at the 46th CGMS Plenary. This marks the completion of Cycle #2, and WGClimate are now working on implementing specific actions.
* Regarding SEC action 237-02, Jörg asked which VNSC/VAST representatives will be traveling to COP 24. Pham Anh Tuan (VNSC/VAST) stated he will attend. Mark Dowell (COM, CEOS Chair Team) noted that Steven Hosford (ESA/CNES, CEO) will be sending an email to VNSC/VAST to confirm the plans for COP 24 and GEO Plenary. Steven agreed to copy Jörg on the email.
* Jörg offered to write a first draft of the CEOS Statement for SBSTA 47 before SEC-239.

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| **238-06** | WGClimate Chair to write a first draft of the CEOS Statement for SBSTA 47. | **SEC-239** |

* climatemonitoring.info will be transferred from ESA to EUMETSAT hosting, and is scheduled to be released to the public next week, with zero downtime of the ECV Inventory expected during the migration.

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| **238-07** | WGClimate Chair to work with the SEO to ensure climatemonitoring.info is appropriately advertised on ceos.org and via CEOS social media. | **SEC-239** |

**WGISS**

Mirko Albani (ESA, WGISS Chair) was unavailable for SEC-238. An apology and a written report were submitted in advance of the call.

**WGCapD**

Senthil Kumar (ISRO, WGCapD Chair) reported:

* The liaison and joint member of both WGCapD and the SDG-AHT has retired. Additional ways to engage to support deliverables and identify SDG-related training and capacity-building opportunities is needed.

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| **238-08** | CEOS Chair to make a connection between the leads of the SDG-AHT, FDA-AHT, and WGCapD with the goal of establishing a dialogue around cross-representation in each of the groups to support deliverables and the identification of training and capacity-building opportunities. | **SEC-239** |

* WGCapD plan to engage the support of VAST and GISTDA to explore possible AOGEOSS synergies.
* WGCapD members from ESA, the UK National Centre for Earth Observation, and NASA, provided 3 days of training on SAR (June 22–25) ahead of the AfriGEOSS Symposium in Libreville, Gabon. SAR applications for flood mapping, pollution mapping, forest height estimation, climate data set processing, and the use of Google Earth Engine for image visualization and processing were all covered. They are now preparing training contributions for a course on image processing for disaster response at the upcoming AmeriGEOSS 2018 training program (August 6 – 10 at INPE in Sao Jose dos Campos, Brazil).

**WGCV**

Kurt Thome (NASA, WGCV Chair) reported:

* WGCV held a telecon on May 31 with discussions concentrating on the agenda for the WGCV-44 meeting planned for August, methods to address the cloud mask task group, work plan actions, improved outreach via the WGCV web site and Cal/Val Portal, and subgroup and agency reports.
* A committee to organize a workshop on pre-flight calibration techniques to address CEOS Work Plan action CV-03 held a telecon on June 21 to determine candidate locations, agenda topics, and possible participants. The meeting announcement is planned prior to the 2018 CEOS Plenary.
* Leads were identified to develop a cloud mask intercomparison using the ACIX approach as a model to address CEOS Work Plan action CV-14 and an initial meeting is planned for October 17-18 in College Park, Maryland, USA.
* Plans are underway for the August 28-31 WGCV-44 meeting at EUMETSAT. The agenda will take advantage of the presence of the WGClimate Chair, multiple VC representatives, and GSICS leads. Key topics during the meeting will include WGCV’s role within CARD4L, GHG and biomass product validation, and WGISS/WGCV joint activities.
* The WGCV Chair participated in the recent LSI-VC teleconference as part of the discussion around WGCV’s role in the CARD4L assessment process. The proposed approach where WGCV provides peer review of the data providers’ self-assessment was agreed upon as a good path forward. Details on how such a peer review will take place will be discussed during WGCV-44 along with determining a point of contact within WGCV for CARD4L assessments. The approach will likely be similar to the one being used for RadCalNet. Further discussions between LSI-VC and WGCV are planned for the SIT Technical Workshop.
* WGCV and WGISS members held a joint teleconference on June 19 as a follow up to activities from the recent Brazil meetings between the two Working Groups. Near-term actions were developed related to data formats and interoperability in the frame of FDA, quality indicators in discovery metadata, CEOS Data Cubes and CEOS test sites data access, and standardization and best practices for validation data sets. A follow-on teleconference is being scheduled for the week of September 3 to evaluate progress on the actions.
* WGCV-44 will be held in the last week of August (28-31), with a Microwave Sensors (MSSG) subgroup meeting on the 27th. This is two weeks prior to the SIT Technical Workshop.

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* Jonathon Ross (GA, SIT Vice-Chair Team) submitted a GEO side event request from CEOS (on behalf of the Open Data Cube Partners) on *"Applying the Open Data Cube Technology to the Sustainable Development Goals"*.
* The SEO submitted a request for a CEOS exhibition booth at GEO Plenary. As we get closer to this meeting, the SEO will work with other CEOS groups to coordinate content. To date, we have received the following ideas for content: Analysis Ready Data (ARD), Open Data Cube (ODC) algorithms and use cases, CEOS data for SDGs, a demo of the COVE tool and new updates and features, highlight recent CEOS launches since the last GEO meeting and their relevance, and upcoming training events (from WGCapD).
* In the past, the SEO has helped pay for the CEOS exhibition with support from the CEOS and SIT Chair teams. No cost information has been received at this point, but when available, the SEO will reach out to the teams.
* The SEO team will be attending the IGARSS conference in Valencia, Spain, July 23-27. There will be 13 papers presented in 3 sessions with a focus on the Open Data Cube (ODC). These papers include applications, algorithms, and infrastructure topics. Preceding the conference, the SEO team will conduct a full-day ODC training session for 25+ international users.
* The SEO is hosting 5 summer students as part of NASA's DEVELOP project from June 4 to August 10. They are working on the Open Data Cube with a team from Colombia (IDEAM and the University of Andes). The project will focus on deforestation detection and a land classification workflow.
* Steve Volz (NOAA, SIT Chair) asked what the typical cost for the GEO exhibition booth is, and Brian reported around 1000 to 2000 USD.

1. **AOB**

**2018 CEOS Plenary**

Astrid-Christina Koch (COM, CEOS Chair Team) reported:

* Registration and accommodation details for the CEOS Plenary have been sent out today and a logistics document is also being prepared.
* Visa requests are needed by July 15.
* Side meeting requests for both bilateral and CEOS meetings have also gone out.
* The meeting objectives paper is still being reviewed, and will be sent out shortly. Emphasis will be placed on agency reports on activities and future support to CEOS, etc.

**CEOS Approach to GEO Flagship and Initiative Letters Requesting Support**

Steve Volz (NOAA, SIT Chair) reported:

* Letters asking for acknowledgement and an unquantified statement of support from GEO Flagships and Initiatives are becoming more frequent. Steve asked how we should handle these going forward, and whether these types of communications should be encouraged.
* Steve also asked whether these should be addressed to the CEOS Chair or SIT Chair. It was noted that we will get more of these, and they impose a burden in drafting responses and discussions at meetings.
* Christine Bognar (NASA) acknowledged the issue and noted this is possibly partly due to strong interest from the GEO side in getting CEOS support, and also partly due to staff/role changes on both sides. She suggested continuing to reiterate that CEOS has a process for reviewing new commitments to ongoing relationships. Christine reported no preference in whether the requests go to the CEOS Chair or SIT Chair, and just suggested that centralizing the process would be helpful for all.
* Mark Dowell (COM, CEOS Chair Team) noted that in many of these cases, CEOS and individual agencies are already involved in active contribution to these Flagships and Initiatives.
* Christine noted there is a need to be careful to distinguish between CEOS-level and agency-level support to an activity.
* This issue will perhaps be discussed further at SEC-239.

**Workshop: Interfaces Between CEOS Agencies and the GHG Monitoring System**

Mark Dowell (COM, CEOS Chair Team) reported that the meeting was intensive, but the result was good, and many good practices and recommendations were captured. Nine CEOS Members and three CEOS Associates (GEO, GCOS, and WMO) participated. A short summary will be prepared before SIT Technical Workshop, and materials from the workshop can be found on the [meeting website](http://ceos.org/meetings/workshop-interfaces-between-ceos-agencies-and-the-ghg-monitoring-system/).

**Earth Observation Side Event at the UN High Level Political Forum**

Jonathon Ross (GA, SIT Vice-Chair Team) reported:

* This event was previously briefed at SIT-33.
* Australia, with support from Vietnam, Canada, Greece, Senegal, Namibia and Switzerland, the GPSDD, the UN Statistics Division, ESA, NASA, and of course the CEOS SDG-AHT will be hosting a formal side event at the HLPF on the SDGs to discuss the exploitation of EO for the SDGs. The focus will be on highlighting how much we already have in place in terms of data, tools, and convening power, but discussing where the challenges lie in closing the ‘last mile’ challenges, noting this will depend on where countries are on their EO journey.
* We had hoped to also include Colombia, but the timing was perhaps not right with their elections. Jonathon thanked Pham Anh Tuan (VNSC/VAST) for his help with the engagement of Vietnam.
* The main audience is intended to be non-EO people, taking advantage of the fact that is the audience that will be at the HLPF.
* This event will be held at UN Headquarters during the high level segment, when Ministers are present.
* Two workshops will also be convened at the Australian Mission, on:
  1. Financing EO, with participation from the World Bank and Asian Development Bank, as well as countries speaking about national funding; and,
  2. Building momentum by identifying key applications that will build local support and buy-in.
* GEO has kindly advertised the event for us, and the Australian Mission in New York will be promoting it to all other Missions and to the UN institutions.
* We are working with the CEO to help us distribute this to Principals, so that Principals can then share with those stakeholders they would like to hear these messages from an external party. Closing this loop, and telling those in your delegation that are going to the HLPF that it is worth attending would be very useful.

Astrid-Christina Koch (COM, CEOS Chair Team) and Jonathon reported that a video from COM will be presented during the forum.

**51st CEOS Newsletter**

Koji Akiyama (JAXA, CEOS Newsletter Team) reported:

* Work has started on the 51st CEOS Newsletter, to be published by the end of August. Proposed authors have been contacted, and thanks is extended to those that have already replied.
* There will be a different format for the newsletter this time, with a focus instead on greenhouse gases, FDA, and the SDGs. A draft outline was circulated via email prior this call. The U.S. Open Data Policy topic has been removed for now.
* The newsletter will also highlight collaborations with GEO and outcomes from SIT-33.

**2019 IPCC TFI Guidelines Revision – Second Order Draft (SOD)**

Koji Akiyama (JAXA) reported:

* The SOD phase will start from next Monday, July 2, ending September 9. It is expected to have the same procedure as the First Order Draft. The JAXA team will consult the CEOS Chair Team in due course.

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| **238-09** | JAXA team to confirm the audience for the Second Order Draft of the 2019 IPCC TFI Guidelines Revision, and to confirm that CEOS input to this stage of the review is possible. | **SEC-239** |

**Planet Analysis Ready Data Interoperability Workshop**

Matt Steventon (CEOS Chair Team) reported:

* The goal of [this workshop](https://medium.com/@cholmes/join-us-in-august-for-an-analysis-ready-data-interoperability-workshop-ec0d0499003e) is to spur industry-wide collaboration, and hopefully come out of the event with some standards that will provide a framework for everyone to easily produce interoperable Analysis Ready Data.
* LSI-VC would like to see the CARD4L Framework applied more broadly than just by CEOS agencies, and as such we're looking to explore opportunities for private and public agencies to work together to make life easier for users.
* This is a perfect opportunity to have our work noticed by and perhaps adopted by the wider community. In discussions with the organisers they have expressed interest in perhaps adopting the CARD4L Framework, if appropriate. The key is to avoid divergence in ARD and interoperability standards between space agencies and the commercial sector.
* From the CEOS perspective, we expect representatives from GA, USGS, ESA, NASA, NOAA (remotely), and CSIRO (possibly) to attend. We are also expecting attendance from the GEOGLAM team.
* Matt encouraged further CEOS Agency representation at this key ARD meeting.

Mark Dowell (COM, CEOS Chair Team) suggested a coordinated CEOS message/presentation. Relaying a common CEOS message is very important. Jenn Lacey (USGS, LSI-VC Co-Lead) reported there was a very positive response from CEOS Agencies, and LSI-VC will develop the common messaging suggested.

1. **Next Meeting and Adjourn**

Mark Dowell (COM, CEOS Chair Team) thanked everyone for attending and adjourned the meeting.

CEOS SEC-239 will take place on Thursday July 26. SEC-240 has now moved to September 12 – in line with the latest dates for the SIT Technical Workshop.