**Minutes V1.0**

**233rd CEOS SECRETARIAT MEETING**

Thursday 25th January 2018

Chaired by COM

**Participants**

**CEO:** Steven Hosford

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

Facchini, Matthew Steventon, George Dyke

**ESA:** Ivan Petiteville

**EUMETSAT:** Robert Husband

**GA/SIT Vice-Chair Team:** Jonathon Ross

**GEO SEC:** Akiko Noda

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

**NASA:** Christine Bognar

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

**SEO:** Brian Killough

**USGS:** Steve Laban, Eric Wood

**VAST:** –

**WGCapD:** Senthil Kumar

**WGClimate:** Jörg Schulz

**WGCV:**  Kurt Thome

**WGDisasters:** Simona Zoffoli

**WGISS:** Mirko Albani, Rob Woodcock

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

Mark Dowell and Astrid-Christina Koch (COM, CEOS Chair Team) welcomed everyone to CEOS SEC-233. Mark reviewed the agenda and asked for feedback/additional items.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

* The *Freshwater from Space* workshop will take place 16–17 May. The first call with the workshop organisers took place on January 22 to discuss objectives and sketch out a draft agenda, which will subsequently be shared more widely for comment. Significant progress on this is expected over the coming month.
* The majority of inputs from CEOS entities have been received for the CEOS 2018-2020 Work Plan. Their integration has begun, and a draft should be available within 2 weeks.
* Preparation of the FDA Big Data Workshop (26 April) is progressing. COM will shortly be contacting a number of agencies to solicit contributions.
* CEOS has been invited to a side meeting of the 55th session of COPUOS’s Scientific and Technical Subcommittee, which will launch a new Global Space Partnership for the Sustainable Development Goals. UNOOSA proposes that CEOS join this partnership. The SDG Ad-Hoc Team has been informed and additional discussion follows under the SDG report.
* Preparation for next week’s GEO-CEOS bilateral meeting is ongoing. An agenda has just been shared. A report will be shared on SEC-234.
* Paul DiGiacomo (NOAA) is stepping down from the OCR-VC co-chair role. The upcoming round of VC/WG teleconferences should be used to update any VC leadership changes.

Kerry Sawyer (NOAA) clarified that there is no formal process regarding the transition of VC leads. It is a self-managed process within the VCs. She added that the VC/WG questionnaire going out soon will cover these types of leadership concerns. Christine Bognar (NASA) agreed with Kerry, and referenced the CEOS Governing Documents. WG procedures for leadership succession are described in the CEOS Working Group Process Paper. In the case of the VCs, leadership succession was included as a common element in their respective Terms of Reference. The consensus from the CEOS Self-Study was that the VCs themselves are best positioned to make their leadership succession decisions.

Mark Dowell (COM, CEOS Chair Team) noted that there is no immediate urgency to find a replacement for Paul, as the OCR-VC has two remaining co-leads. Mark suggested revisiting this topic after the VC/WG questionnaire has taken place.

Steve Volz (NOAA, SIT Chair) clarified that Paul is still involved in OCR-VC, just no longer in a leadership role.

Astrid-Christina Koch (COM, CEOS Chair Team) has been working with Mirko Albani (ESA, WGISS Chair) on formulating COM’s Big Data workshop agenda. Kerry Sawyer reminded everyone that there is only capacity for around 35-40 people for the FDA workshop.

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| **233-01** | Astrid-Christina Koch (COM, CEOS Chair Team) to share the draft agenda for the Big Data workshop.  All to review the objectives/agenda and propose presenters for the workshop – particularly people with a background in big data. | **SEC-234** |

1. **SIT Chair Report**

Kerry Sawyer (NOAA, SIT Chair Team) reported:

* Space Climate Observatory (SCO) and Paris Declaration discussions will continue next week while the CEOS team (SIT Chair, CEOS Chair, WGClimate, CEO) is in Geneva. A meeting will be held with GCOS and CNES, during which there will be a discussion around how to move forward with CEOS engagement. CEOS understands that the SCO will be a web portal; further information will be sought next week. Steve Volz (NOAA, SIT Chair) noted that CNES has pushed ahead with this initiative somewhat independent of CEOS, and we perhaps need to have a discussion at SIT-33 around CEOS branding.
* SIT-33 preparations are underway. CEOS should expect a formal invitation letter and logistics information by the end of January. If anyone requires a visa letter, please let Kerry know as soon as possible. Also, please let Kerry know if anyone is interested in hosting a side meeting on 23 April. Kerry also asked all to take note that Boulder is a little over one mile/1,600 meters above sea level, so SIT-33 participants should be cautious.
* There is a need to determine how CEOS leadership wants to engage with CEOS entities that are leading or contributing in the GEO Work Programme to ensure that CEOS contributions are resourced properly to ensure success. If there is little chance of success of the GEO Work Programme activity, then we need to reconsider CEOS contributions. This is another CEOS “branding” issue. Steve Volz reported that CEOS is much better prepared with a mapping of activities and we may be able to assist GEO in assessing other GEO entity contributions.

1. **GEO SEC Report**

Akiko Noda (GEO SEC) reported that she had planned to discuss the GEO Initiative on Land Degradation Neutrality (LDN) on this call, however she will instead defer this to next week’s CEOS-GEO bilateral meeting.

Akiko also noted that the 3rd GEO Data Providers Workshop will now be held 2-4 May at ESA ESRIN, Frascati, Italy.

Mark Dowell (COM, CEOS Chair Team) noted the Climate Show 2018, which was introduced to CEOS by Barbara Ryan (GEO SEC) at the 2017 CEOS Plenary. Mark has discussed this with André Obregon (GEO SEC), and confirmed that the 6-8 April event is more of a trade fair than a conference. It was agreed that unless WGClimate is interested in doing something around the meeting, it is likely not worth investing CEOS resources. Steve Volz (NOAA, SIT Chair) agreed, and Jörg Schulz (EUMETSAT, WGClimate Chair) confirmed that WGClimate is not likely to engage.

A concept paper (up for discussion by the GEO Programme Board next week) proposes two workshops on the GEO response to the Paris Climate Agreement (end May/early June and late 2018/early 2019 with the policy community). The output from the first meeting is expected to be a gap analysis of what is being done/has been done in the GEO community.

1. **Working Group Reports**

**WGDisasters**

Simona Zoffoli (ASI, WGDisasters Chair) reported:

* The contribution from WGDisasters to the 2018-20 CEOS Work Plan has been submitted.
* WGDisasters is continuing its support to the GEO-GSNL initiative, providing EO data and evaluating proposals. A new proposal for an event supersite over the Kermanshah province (Iran), which was devastated by a M7.3 earthquake on 12 November 2017, has been received. Evaluation is ongoing.
* Disaster Risk Management (DRM) pilots and demonstrators: discussion is ongoing on future demonstrators aimed to take successful elements of pilots and broaden their application to new users in new geographic areas, or to consolidate applications with existing users and seek long-term sustainability through new funding relationships.
* The volcanic team activated objective C of the volcanic pilot in response to the Agung eruption. A short news story has been published on the CEOS website. Attention is now on the Mayon volcano in the Philippines.
* Recovery Observatory (RO): a technical mission to Haiti recently concluded (4-8 December). The first official products will be presented to the User Workshop planned for the week of 7 May in Port-au-Prince and Les Cayes.
* GEO-DARMA: discussions are moving forward in Asia and Africa, and the first project proposals are expected to be formulated in these regions for presentation to CEOS next spring. The 3rd Steering Committee meeting is planned for January 25, and will review the project proposals in Asia and Africa, as well as the first analysis of regional reports for Latin America/the Caribbean. UNISDR Americas is now engaged in the process, in tandem with UNEP LAC.

Akiko Noda (GEO SEC) asked whether the side event for the Understanding Risk Forum has been accepted. Simona reported it has not yet been approved. She expects to receive feedback by mid-February. Simona also confirmed that Akiko is welcome to join the next WGDisasters meeting remotely.

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* The October 2017 version of the CEOS MIM is now accessible for analysis purposes within the ECV Inventory. In addition, links to the WMO OSCAR have also been implemented. With this, an analysis of available and future measurements linked to the ECV products becomes feasible.
* WGClimate started the remaining gap analysis with a briefing teleconference on 17 January with WGClimate members and volunteers (representatives from 11 agencies and WCRP).
* The agenda for the next WGClimate meeting (last week of March at WMO in Geneva) is being formulated and includes a joint session with the WCRP Data Advisory Council at the start of the meeting.
* An open discussion was held with the Chair of the SCOPE-CM Executive Panel (Jeff Privette from NOAA) on the future role of SCOPE-CM, in particular in relation to WGClimate. This may lead to an updated SCOPE-CM Implementation Plan.
* WGClimate’s CEOS Work Plan updates are expected next week (delayed due to other commitments).

**WGISS**

Mirko Albani (ESA, WGISS Chair) reported:

* Action 232-03: review of the Carbon Portal prototype by a broader community of users was briefly discussed and fully agreed at the last WGISS Exec teleconference. Opening of the Portal should happen in July 2018.
* Data Preservation and Stewardship: the WGISS Data Management and Stewardship Maturity Matrix White Paper has been issued. Lessons learned on its application will be collected from WGISS members.
* Data Discovery and Access:
  + Continuing the review of the ECV Inventory Version 2.0. The mapping between ECVs and datasets available at NASA/NOAA/EUMETSAT/ESA has been completed. 913 datasets have been identified; 496 are past/present data collections; 288 are currently accessible via the IDN, while 204 are not.

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| **233-02** | WGISS Chair to report on progress on strategies for improving the availability of CEOS agency ECV datasets via the IDN. | **SEC-234** |

* + NOAA OneStop Portal data is now available through the IDN (collection-level). Granule access will follow.
* Technology Exploration: webinar on *“The OGC Coverage Standards Suite: Introduction and Overview”* was held by Dr Peter Baumann (Managing Director of Rasdaman). The focus was on building spatio-temporal data cubes based on WCS/WMS OGC standards.
* WGISS-45 (April 9-13, INPE (San Jose Dos Campos, Brazil)) will have a joint meeting with WGCV and a one-day workshop on Future Data Architectures and the Copernicus Data and Information Access System (DIAS). This workshop is expected to generate inputs for the COM Big Data workshop being held after SIT-33.

**WGCapD**

Senthil Kumar (ISRO, WGCapD Chair) reported:

* The 2018-20 CEOS Work Plan updates from WGCapD have been submitted.
* Plans for 2018-2020 will be discussed during the WGCapD annual meeting to be held in São José dos Campos, Brazil, from March 6-8, 2018. They include: training opportunities, supporting other WGCapD members’ initiatives, and supporting CEOS/GEO initiatives.
* The *Training: Methods & Best Practices* document will be sent out to the CEOS mailing lists for review shortly.
* On November 29, the WGCapD Chair sent WGCapD membership invitation letters to GISTDA (Anond Snidvongs), JAXA (Tachi Kazuo), UKSA (Katherine Courtney) and SANSA (Andiswa Mlisa). Feedback has only been received from SANSA.
* WGCapD’s terms of reference have been under review and an updated version will be approved during the annual meeting.
* The agenda for WGCapD-7 is being prepared with a focus on generating a roadmap for collaboration. Specific invitation letters have been sent to: GISTDA, UKSA, JAXA, ITC, CEOS CEO, SANSA, and AfriGEOSS and AmeriGEOSS points of contact.

**WGCV**

Kurt Thome (NASA, WGCV Chair) reported:

* RadCalNet has begun processing data from the fourth site at Gobabeb, Namibia, as a test of incorporating new sites into the network as part of the preparations for making the RadCalNet data publicly available.
* The Atmospheric Correction Intercomparison Exercise (ACIX) study team organized a special session at the American Geophysical Union Fall Meeting including presentations on ACIX activities and the Harmonized Landsat Sentinel Reflectance Products that were integral to the Moderate Resolution Intercomparison work.
* A set of draft topics for the joint WGISS-WGCV meeting, as well as possible topics of interest to both WGISS and WGCV for the WGISS FDA workshop were discussed via teleconference.
* The WGCV Chair and Vice-Chair are working with a Vice-Chair candidate to obtain the appropriate paperwork for their candidacy.
* WGCV is working on CEOS Work Plan updates and also working with Steven Hosford (ESA/CNES, CEO) to close out some open actions.

**SEO Report**

Brian Killough (NASA, SEO) reported:

* Regarding CEOS SEC action 231-04: the presentations (reports) have been aggregated and uploaded to the CEOS document management system [here](http://ceos.org/document_management/SEO/DataCube/GEO14_ODC_presentations.pdf).
* Brian Killough will meet with the Swiss Data Cube team on January 31 in Geneva. A presentation will be given at the University of Geneva followed by a technical meeting.
* The SEO team is working with the Open Data Cube team to plan the annual Data Cube Workshop (February 12-16) at Geoscience Australia.
* Brian Killough attended the Earth Science Information Partners (ESIP) 2018 winter meeting in Bethesda, Maryland, USA (January 9-11). Two presentations were given on the Open Data Cube related to Data Analytics and Cloud Computing.
* The SEO is making progress in 3 specific areas relevant to the Open Data Cube:
  + working with CSIRO and Symbios to progress the Vietnam Data Cube in order to meet an internal Vietnamese deadline in March 2018;
  + talking with Google about a "Data Cube on Demand" concept that will take advantage of their data holdings for rapid cube generation; and,
  + working with the Global Partnership for Sustainable Development Data (GPSDD) and Amazon to progress an African Regional Data Cube to support 5 countries: Kenya, Senegal, Sierra Leone, Ghana and Tanzania.

Jonathon Ross (GA) noted the importance of the African Regional Data Cube as a demonstrator, as the World Bank continues to discuss the possibility of a continent-wide African Data Cube.

Jonathon also noted the upcoming [ODC Conference](https://www.opendatacube.org/upcoming-events), where one of the key topics is how the Data Cube could be deployed on Europe’s DIAS. Any inputs from COM/ESA would be very much appreciated.

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| **233-03** | Astrid-Christina Koch (COM, CEOS Chair Team) to inform Martin Ditter (COM) that the ODC/CEOS Data Cube team would like to explore how the Data Cube might be deployed on Europe’s DIAS. | **SEC-234** |

1. **Brief Status Updates of *Ad Hoc* Initiatives**

**SDCG/GFOI**

Osamu Ochiai (CEOS Lead for GFOI) reported:

* The World Bank, which recently joined the GFOI Lead group, will host the next Lead Team meeting at their premises in Paris. Topics for the meeting will include: introducing new Leads (ESA, UK, and The World Bank), the GFOI Plenary agenda, country needs assessment, early warning/near-real-time forest monitoring, REDD+ reviews, and the GFOI work plan for 2018.
* USGS absence from SDCG will be followed up in writing with Jenn Lacey and Steve Labahn (USGS). Periodic inputs to SDCG and the global baseline presentation for SDCG-13 will be requested.
* JAXA is implementing an open and free data policy that can support GFOI. This includes the full ALOS archive (publicly available).
* The SDCG Co-chairs (ESA and UK) will prepare a CEOS Resource Paper for discussion at SIT-33.
* The GFOI Early Warning effort is now led by the World Resources Institute (WRI), and bi-weekly teleconferences are planned with Osamu, Ake Rosenqvist, and Stephen Ward nominally representing CEOS. A User Needs Assessment process will be organised and a contractor will be selected shortly (funded by the GFOI Office). A forum will be organised in the first week of June 2018 in Lima, Peru. There has been some discussion around the naming of the effort: “Early Warning” versus “Near-real-time monitoring” versus “early alert”.

**GEOGLAM**

The CEOS-GEOGLAM *ad hoc* WG Co-Leads submitted a written report, but were not available to join the call.

**Future Data Access and Analysis Architectures *Ad Hoc* Team (FDA-AHT)**

The FDA-AHT was not represented at SEC-233, and no written report was received.

Steven Hosford (ESA/CNES, CEO) noted that he will be meeting tomorrow with Nick Hanowski (ESA, FDA-AHT Co-Lead) to clarify the way forward.

**Sustainable Development Goals *Ad Hoc* Team (SDG-AHT)**

Marc Paganini (ESA, SDG-AHT Co-Lead) reported:

* ISRO offered to represent the CEOS SDG-AHT at the Geospatial World Forum on SDGs (mid-January, India). Forum outcomes related to CEOS SDG-AHT activities will be reported at SIT-33.
* CEOS Agencies are again requested to provide more and updated SDG contacts, so that the SDG-AHT can continue to collect more information about CEOS activities on the SDGs. Nothing further was received as a result of the first call.

Steven Hosford (ESA/CNES, CEO) reported that CEOS has been solicited by UNOOSA regarding participation in a new global partnership on the UN SDGs. Attendance at a 1-hour side meeting of UN COPUOS in early February is requested. Steven asked SEC for guidance on how CEOS should respond to this request.

* Marc noted that the work of UNOOSA is much broader than EO (telecommunications, navigation, etc.).
* Astrid-Christina Koch (COM, CEOS Chair Team) suggested that it is too short notice.
* It was agreed that CEOS should respond positively, noting however that attendance at this first meeting will not be possible.
* Jonathon Ross (GA) noted that the letter from UNOOSA referred to a document “Initiating the Global Space Partnership for the SDGs”. Steven confirmed that this hasn’t been received, but he will request it in his response to UNOOSA.
* Akiko Noda (GEO SEC) confirmed that Barbara Ryan was invited to the side meeting, however she is unable to attend due to a scheduling conflict. Jonathon suggested that CEOS engagement in the effort be via GEO. Steve Volz agreed. It was agreed that GEO could be asked to present on the scope of their engagement with UNOOSA on the SDGs at SIT-33 in April.

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| **233-04** | Steven Hosford (ESA/CNES, CEO) to draft a response to UNOOSA regarding the SDG UN COPUOS side meeting, noting that CEOS is keen to be involved, but unable to attend the first meeting.  Steven to circulate the draft to the SDG-AHT Co-Leads and CEOS Chair for review. Once the response is agreed, Steven will send it to UNOOSA on behalf of CEOS.  Steven will also ask for a copy of the document “Initiating the Global Space Partnership for the SDGs”. | **February 2** |
| **233-05** | Akiko Noda (GEO SEC) to confirm the scope and specifics of the UNOOSA-GEO relationship on the topic of the SDGs. | **CEOS-GEO Bilateral Meeting** |
| **233-06** | SIT Chair Team to invite GEO to present on the scope of their engagement with UNOOSA on the SDGs at SIT-33. | **SEC-234** |

1. **AOB**

**IPCC Guidelines Refresh**

Mark Dowell (COM, CEOS Chair Team) has registered as a reviewer on behalf of CEOS and has been discussing the feedback strategy with JAXA. He will provide comments from a CEOS perspective, but agencies have also been encouraged to register individually, so that agency-specific feedback can be input to the process. The deadline for the open review is February 11. Mark will suggest edits that reinforce the position of EO in the copy that will be sent out for CEOS review (1-week window). Feedback will mostly be requested on his edits, however there is scope for other minor changes to be included. Detailed changes should be submitted via the aforementioned agency-specific reviews. The focus for the CEOS review will be Volume 1, Chapter 6.

It was agreed that the review distribution should be as follows: AC-VC, WGClimate, and CEOS SEC.

Osamu Ochiai (JAXA) recalled the NIES GHG Guidebook review. CEOS was asked to review this document by the end of December, however the deadline has now been extended until the end of February.

Steven Hosford (ESA/CNES, CEO) noted that the AC-VC GHG white paper is reportedly on schedule. Steve Volz (NOAA, SIT Chair) recalled that the intention was to have a draft in time for SIT-33 for discussion at the meeting. Christine Bognar (NASA) will inquire on the status.

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| **233-07** | Christine Bognar (NASA) to follow up the status of the AC-VC GHG white paper with David Crisp. | **SEC-234** |

1. **Next Meeting and Adjourn**

Mauro Facchini (COM, CEOS Chair Team) thanked everyone for attending and adjourned the meeting. CEOS SEC-234 will take place on February 22, 2018. The call will be scheduled for 90 minutes.