**Minutes V1.0**

**235th CEOS SECRETARIAT MEETING**

Thursday 22nd March 2018

Chaired by COM

**Participants**

**CEO:** Steven Hosford

**COM:** Mark Dowell, Michael Berger, Matt Steventon, Stephen Ward

**ESA:** –

**EUMETSAT:** Robert Husband

**GEO SEC:** –

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

**NASA:** Christine Bognar, Brad Doorn

**SIT Chair Team:** Steve Volz

**SEO:** –

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

**USGS:** Eric Wood

**VAST:** Pham Anh Tuan, Linh Phan, Nguyen Truong Thanh

**WGCapD:** Senthil Kumar

**WGClimate:** Jörg Schulz

**WGCV:**  Kurt Thome

**WGDisasters:** Simona Zoffoli

**WGISS:** Mirko Albani

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

Mark Dowell (COM, CEOS Chair Team) welcomed everyone to CEOS SEC-235. He added AOB items on the COM GHG workshop and ad-hoc team reporting to SEC. Open actions will be covered under their respective sections.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

* The finalisation of the CEOS Work Plan continues to slip. There has been some progress since SEC-234, but Steven is not yet in a position to issue a first draft (next week is the target). Virtual endorsement is desired before SIT-33, so the Work Plan can be referenced for and during the meeting.
* A draft of the agenda for the *Freshwater from Space* workshop has been distributed amongst the leads, and targeted invitations are expected to go out next week.

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| **235-01** | CEOS SEC to send Steven Hosford (ESA/CNES, CEO) any suggested contacts for invitation to the *Freshwater from Space* workshop. | **March 30** |

Steven asked Working Group Chairs to be aware of the importance of having a robust remote connection for their face-to-face meetings.

Steve Volz (NOAA, SIT Chair) asked everyone to review the CEOS Work Plan ahead of SIT-33.

Mark Dowell (COM, CEOS Chair Team) asked for clarification on the process for virtual endorsement of the CEOS Work Plan, and asked whether endorsement in person at SIT-33 is perhaps a better option. Steven noted the importance of having the document finalised and discussed before the meeting, to avoid long discussions during. Mark suggested sticking to the original virtual endorsement plan.

1. **SIT Chair Report**

Steve Volz (NOAA, SIT Chair) reported:

* An updated SIT-33 draft agenda was released yesterday; there are still a few speakers to be confirmed. A WebEx connection will be available for remote presentations.
* 52 people are currently registered for SIT-33; anyone that is yet to register should do so as soon as possible.
* A strategic discussion paper has also been distributed for comment. The paper sets the stage for the meeting.

Jonathon Ross (GA, SIT Vice-Chair Team) queried the session on future mission planning, asking whether this session is open to others outside of those indicated on the agenda. He added that Alex Held might have a few words to say about the Australian space agency. Steve welcomed this potential addition.

* GEO has established three subgroups on its Programme Board. CEOS needs to identify a representative to the Sustainable Earth Observations Subgroup. CEOS has no terrestrial component, but our expertise is requested to help develop best practices to facilitate coordination of *in situ* observations and their integration with space-based observations. Representatives to the two other new Subgroups have already been identified: David Green (NASA), WGDisasters Vice-Chair is confirmed as the CEOS Representative to the Sendai Framework Subgroup; and Kerry Sawyer (NOAA), SIT Chair Team, is confirmed as the CEOS Representative to the Work Programme Monitoring Subgroup.

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| **235-02** | CEOS SEC to consider nominations for the GEO PB Sustainable Earth Observations Subgroup and report back to Kerry Sawyer (NOAA, SIT Chair Team). | **March 30** |

* All 12 Virtual Constellation and Working Group consultation teleconferences have been completed. A summary will be shared in due course.

Mark Dowell (COM, CEOS Chair Team) noted that 33 people are currently registered for the FDA workshop that will follow SIT-33. The agenda is being developed around the note/draft previously sent.

Mark also noted that the agenda for the Paris Agreement workshop (third day of the GEO Symposium week) is being drafted, and a dedicated high-level session will also take place during the GEO Symposium itself.

1. **GEO SEC Report**

Akiko Noda (GEO SEC) sent apologies in advance for being unable to attend CEOS SEC-235. No written report was submitted.

Steve Volz (NOAA, SIT Chair) reported on the recent GEO ExCOM meeting, which was the first attended by Gilberto Câmara, the next GEO Secretariat Director. He will also attend the GEO Symposium and serve as GEO Secretariat Director in a 1-month overlap with Barbara Ryan. Alex Held (CSIRO, SIT Vice-Chair) and Kerry Sawyer (NOAA, SIT Chair Team) will provide a written report on the ExCOM meeting proceedings.

Jonathon Ross (GA, SIT Vice-Chair Team) noted that one of the other subgroups established under the GEO PB is about connectivity between the regional GEOSS. A number of CEOS agencies will be attending the international conference of AOGEOSS and the International Training Workshop in China, May 2018.

1. **Working Group Reports**

**WGDisasters**

Simona Zoffoli (ASI, WGDisasters Chair) reported:

* Recovery Observatory (RO): Progress in Haiti with growing stakeholder engagement and positive feedback. The current RO Work Plan will continue with a three-day user workshop in May. New partners are also joining, including NOAA (vector-borne disease contribution) and EC (Copernicus Risk and Recovery – two activations underway). Opportunities for broader partnerships and extension to other countries in the region are under review. Discussions on a global, ‘generic’ RO are planned.
* GEO-DARMA: Assessments of data and product needs in Asia and Africa are underway. Four project proposals formulated for further development. One may be reviewed at SIT-33, and the others will be reviewed in Q3 2018 (3 projects have identified financial support, capacity, and regional champions). A Mekong flood project is under review (due March 31) and could be presented at SIT-33.
* Disaster Risk Management (DRM) Demonstrators: Demonstrators were introduced at past SIT meetings and the criteria to build on the Pilots was reviewed – including emphasis on increased multi-hazard data use, global expansion, stronger stakeholder engagement and capacity building. WGDisasters has identified potential linkages across CEOS WGs (WGCapD, WGISS) as well as GEO-DARMA. Three new Demonstrators are proposed to build on the Pilots (Seismic Hazards, Volcanoes, and Floods) and have been formulated and reviewed by the WG. The Seismic Hazard and Volcano Demonstrator teams are summarising their objectives, activities, benefit to users, and data needs, for consideration at SIT-33. The Flood Demonstrator team will continue their analysis to identify leadership and partners, and consider integration with the flood initiatives and partnerships of GEO.

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) was not present at the time of this agenda item. He provided a written report for v1.2 of the written reports PDF.

It was noted that WGClimate will meet next week, as part of *Climate from Space Week*.

Steve Volz (NOAA, SIT Chair) noted the WMO paper: *Concept for The Physical View of the Architecture for Climate Monitoring from Space*. The CEOS-CGMS WGClimate has an action to review and respond. Steve suggested that anyone interested in contributing to the review reach out to Jörg. The paper will be discussed at SIT-33. Mark Dowell (COM, CEOS Chair Team) noted that the paper is complimentary of the CEOS constellation concept.

**WGISS**

Mirko Albani (ESA, WGISS Chair) reported:

* Action 233-02: ECV-related datasets not registered in the CEOS International Directory Network (IDN) are not discoverable and accessible through the WGISS Connected Data Assets Infrastructure. Data providers have been contacted and the registration process has been detailed. The WGISS Connected Data Asset System Level team will follow-up. The action can be closed.
* NOAA can no longer support the WGISS Infrastructure Services Project (WISP). WISP provides technological support and core services for WGISS activities including teleconference and web conference support via GoToMeeting, website support, mailing list and meeting archive support. The WGISS Chair will ask the SEO to support these services in case no other agency actively involved in WGISS volunteers to take over WISP.
* Data from the National Remote Sensing Center of China (NRSCC) and the Academy of Opto-Electronics (AOE; part of the Chinese Academy of Sciences, CAS) are being registered in the IDN and will then be accessible through the WGISS Infrastructure.
* All NOAA data collections from NOAA OneStop have been registered in the IDN. Access at product level is being implemented.
* A dedicated workshop on *FDA Elements & Technologies and Introduction to DIAS* will be held during the WGISS-45 meeting. A full-day agenda has been filled, including an item of discussion on the possible implementation of an ‘FDA Test-bed’. Dedicated sessions on User Metrics and User Authentication and Identity Management are also included, to start addressing the FDA actions assigned to WGISS.

Mark Dowell (COM, CEOS Chair Team) noted the reference to the CGMS-46 Working Group IV meeting in the WGISS written report. Mirko noted that WGISS planned to be represented, however a representative is yet to be identified.

**WGCapD**

Senthil Kumar (ISRO, WGCapD Chair) reported:

* WGCapD successfully conducted its 7th annual meeting, hosted by INPE in Brazil. 17 people attended in person, and a further 26 joined remotely, making this a highly attended meeting. Space agencies, the CEO, GEO Secretariat, UNOOSA, and regional partners were all present during the discussions.
* WGCapD’s Work Plan for 2018-2020 is under revision and will be completed by next week.
* The WGCapD Vice-Chair, Nancy Searby (NASA), will participate in SIT-33. The WGCapD Secretariat will represent WGCapD at the WGISS and WGCV meetings at INPE next month.

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| **235-03** | Pham Anh Tuan (VAST) to nominate a VAST representative for WGCapD. | **SEC-236** |

**WGCV**

Kurt Thome (NASA, WGCV Chair) reported:

* The LPV subgroup held a meeting on March 2, 2018 at ESA ESRIN in Frascati, Italy. Key discussions included efforts in support of CEOS Carbon Actions, including work related to biomass validation.
* The LPV meeting was held in conjunction with a *Land Product Validation and Evolution Workshop*. The workshop included productive discussions related to validation networks, validation of analysis-ready data, RadCalNet, and the results of the ACIX efforts. Steven Hosford (ESA/CNES, CEO) presented a keynote talk on CARD4L. This led to a 1-hour discussion on activities that the land community could be doing to aid validation of analysis-ready data. The data provider community has heard the demand for these datasets, and are working to make sure they are high quality.
* Efforts are underway to summarize the recently published peer-reviewed results from the Atmospheric Correction Inter-comparison Exercise (ACIX) in a manner suitable for the CEOS website.
* Updates to the Cal/Val portal that is used by many of the WGCV subgroups is continuing, as well as updates to WGCV content on the CEOS website.
1. **SEO Report**

Stephen Ward reported on behalf of Brian Killough (NASA, SEO):

* The Global Partnership for Sustainable Development Data (GPSDD) plans to announce the new African Regional Data Cube at the Data for Development Festival in Bristol, U.K., March 21-23. Brian Killough (SEO) is attending this meeting.
* The Swiss Data Cube "Hackathon" event is on April 11-13 in Geneva. The event will focus on the use of the Swiss Data Cube to support SDGs and the development of new information products.
* The SEO team attended the GFOI and SDCG meetings in Bogota, Colombia, March 12-16. Side meetings were conducted with IDEAM to discuss their progress with the Colombia Data Cube. In addition, Dr. V.A. Tuan (Vietnam) and Dr. Chiou (Taiwan) presented their advancements with the Open Data Cube. Additional side meetings were conducted with DANE (Colombian statistical agency) to discuss their potential use of the Colombia Data Cube for SDG reports.

Mark Dowell (COM, CEOS Chair Team) noted the recently signed Copernicus Cooperation Agreements with Colombia, Chile, Brazil, and India. He noted that this will provide increased connections to Copernicus data, which could be a great benefit to, for example, Colombia’s Data Cube.

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

**SDCG/GFOI**

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

* At the GFOI Lead Team meeting in Bogota, the group agreed to send a letter to CEOS regarding the GFOI expectations of CEOS for GFOI Phase 2. Once received, the CEOS Lead for GFOI will then bring this statement back to the SIT-33 meeting in April for discussion, and in turn to senior CEOS leadership to confirm their intentions and agree the CEOS position for GFOI Phase 2.

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| **235-04** | Steve Volz (NOAA, SIT Chair) to confirm with Kerry Sawyer: an appropriate POC for the letter from GFOI to CEOS regarding their expectations for GFOI Phase 2. | **March 30** |

* SDCG is asking GFOI to consider a more focused and resourced R&D programme for GFOI Phase 2. SDCG is considering whether CEOS should continue to support the GFOI R&D programme (with data) in its current form.
* SDCG, in response to discussions within the GFOI community, is considering the inclusion of a global biomass baseline dataset in the SDCG Element 1 Strategy. This would be in response to a number of upcoming CEOS agency missions proposing to provide data supporting the direct measurement of biomass (e.g., BIOMASS/ESA, GEDI/NASA, MOLI/JAXA, SAOCOM/CONAE, NISAR/NASA/ISRO, ICESAT2/NASA, ALOS-4/JAXA). This could be coordinated with work being done by the WGCV LPV subgroup.

**GEOGLAM**

Brad Doorn (NASA, CEOS-GEOGLAM *ad hoc* WG Co-Lead) reported:

* The GEOGLAM Operational User Requirements Workshop is taking place 17-18 April 2018 at EC/JRC in Ispra, Italy. JRC staff are handling the registrations, and Brad will share the final attendance list with CEOS SEC as soon as possible.
* Inbal Becker-Reshef and Ian Jarvis represented GEOGLAM at the G20 Agricultural Deputies meeting on 12 March 2018 in Rosario, Argentina. It appears that language on GEOGLAM has been included in their declaration (TBC).
* CNES and CESBIO have implemented Sentinel-1 analysis-ready data in the Vietnam Data Cube and have demonstrated algorithms for rice monitoring.

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

The FDA-AHT was not represented at SEC-235, and no written report was received.

Steven Hosford (ESA/CNES, CEO) noted that the FDA-AHT Co-Leads met 1.5 weeks ago, and made plans for a face-to-face meeting to take stock of recent activities and prepare for SIT-33.

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

Eric Wood (USGS, SDG-AHT Co-Lead) reported select points from the written report:

* CEOS EOHB on SDGs: The official release took place at the 49th Session of the UN Statistical Commission, New York City, 6-9 March, during a side session organised by UN GGIM (*Statistical-Geospatial Integration Forum: integrating statistical, geospatial and other big data to leave no one behind* – with a special panel on *Satellite Observations for Sustainable Development Goals*). 2000 copies of the EOHB were distributed.
* The SDG-AHT is still working on the compendium of CEOS SDG activities.
* An announcement will go around shortly for an SDG-AHT side meeting at SIT-33.

Mark Dowell (COM, CEOS Chair Team) noted that the EOHB has been distributed amongst policy officials at the European Commission to help raise awareness of the potential contribution of EO to the SDGs.

1. **AOB**

***Ad Hoc* Team Reporting at CEOS SEC**

Mark Dowell (COM, CEOS Chair Team) noted that the regular reporting from *Ad Hoc* teams at CEOS SEC has been a point of discussion amongst the CEOS and SIT Chairs and the CEO. It was proposed that systematic reporting cease, in favour of inviting specific updates on an as-needed basis.

Jonathon Ross (GA, SIT Vice-Chair Team) asked whether this might lead to the AHTs ‘drifting’, inconsistent with the agreed approach, that is, to take on a specific task for a short period of time before winding down. Steve Volz (NOAA, SIT Chair) argued that by avoiding regular reporting, we instead allow AHTs to focus on their deliverables for the SIT and Plenary meetings.

All of the AHT representatives present on the call supported the change, and it was agreed that from now on, the CEOS Chair will contact AHT POCs each month to see if they wish to report at the SEC teleconference.

**COM GHG Workshop**

Mark Dowell (COM, CEOS Chair Team) recently distributed the invitation for this workshop. The goal is to have space agency participation, as well as attendance from groups collaborating with agencies on modelling, inventory, and *in situ* aspects. The objective is to produce a summary of best practices based on the relationships between space agencies and these other entities. Further details regarding attendance are in the email; it is suggested that each agency limit additional invitees to 3 people (1 for each of the modelling, *in situ*, and inventory aspects). There is no limit proposed for space agency attendees.

In response to a question from Christine Bognar (NASA), Mark clarified that the invitation is targeted at the agencies, rather than VCs specifically; the agencies should be responsible for nominating any agency attendees, as well as any attendees from national partners from the modelling, *in situ*, and inventory communities.

**50th CEOS Newsletter**

Osamu Ochiai (JAXA) noted that this is an anniversary edition of the newsletter, and will look back at the history of the publication and CEOS in general. He thanked everyone for their contributions. The newsletter is now entering the editing and layout stage.

1. **Next Meeting and Adjourn**

Mark Dowell (COM, CEOS Chair Team) thanked everyone for attending and adjourned the meeting. CEOS SEC-236 will take place at SIT-33, on Monday April 23 at 9am.