**Minutes V1.0**

**214th CEOS SECRETARIAT MEETING**

Thursday 14th July 2016

7AM US East, 1PM Europe, 8PM Tokyo, 9PM Sydney

Chaired by CSIRO

**Participants**

**CEO Team:** Jonathon Ross, Marie-Josée Bourassa

**CSIRO:** Alex Held, Caroline Bruce, Matthew Steventon, Rob Woodcock

**ESA:** Stephen Briggs

**EUMETSAT:** Robert Husband

**GEO:** Osamu Ochiai

**JAXA:** Shizu Yabe, Naoko Matsuo, Yukio Haruyama, Koji Akiyama

**NASA:** Christine Bognar, Brian Killough, Eric Lindstrom

**NOAA:** Kerry Sawyer

**USGS:** Steve Labahn, Eric Wood

**WGCapD:** Jane Olwoch

**WGClimate:** Pascal Lecomte

**WGDisasters:** Stéphane Chalifoux

**WGISS:** Andrew Mitchell

1. **Welcome and Introductions**

Alex Held (CSIRO, CEOS Chair representative) welcomed everyone to the meeting and noted that verbal reporting should be limited to topics that require discussion and/or decision by CEOS SEC, and this will be reflected in the following minutes.

*The collection of written reports received ahead of the teleconference are attached in Appendix A and present a thorough overview of the status and activities of the CEOS entities present at CEOS SEC-214.*

1. **Review of Agenda**
2. **Review of Actions**
3. **37th GEO Executive Committee Meeting**

Stephen Briggs (ESA, SIT Chair) reported briefly on the 37th GEO ExCOM, which was held in Geneva last week. He noted that the event was not without issue, however it is positive that the operation of the meetings will be reviewed, hopefully resulting in more effective gatherings in the future. The European Commission’s Director-General for Research and Innovation attended for the first time and was very keen to see GEO make progress in key areas. Stephen reported that overall the meeting held the prospect of a positive future for GEO.

1. **Working Group Reports**

**WGDisasters (Stéphane Chalifoux, CSA, Chair)**

Stéphane reported that all activities are progressing well, and he directed SEC to the written report for details. Stéphane noted that WGDisasters recently published a web story on *‘Satellite Data for Understanding Earthquake Impacts’* and he thanked Kim Holloway (NASA, SEO) for her support. The web story can be found at: <http://ceos.org/home-2/satellite-data-play-critical-role-in-understanding-how-the-earth-moves/>

**WGClimate (Pascal Lecomte, ESA, Chair)**

Pascal stated that the WGClimate written report covers all necessary updates, however he did note that the Working Group continues to progress the ECV Inventory and he is working on the CEOS report to SBSTA and preparations for COP-22 (ESA will have a presence at the meeting). It was noted that COP-22 will be held at the same time as GEO Plenary (7 – 17 November).

Pascal closed the report by noting that the new GCOS IP should be released for review shortly. Pascal will ensure that CEOS SEC is well informed and he confirmed that CEOS will be closely involved in the review process.

**WGISS (Andrew Mitchell, NASA, Chair)**

Andrew reported that the WGISS co-leads had their consultation meeting with the SIT Chair team this week, and they used the opportunity to review some of the topics that they will raise for discussion at the SIT Technical Workshop VC/WG Day.

Andrew noted that the agenda for the WGISS-42 cloud computing day is filling fast, with many CEOS agencies volunteering to present reports.

WGISS is leading two chapters of the report being compiled by the Future Data Access & Analysis Architectures (FDA) Ad Hoc Team, and the activity is currently a major focus for the Working Group.

**WGCapD (Jane Olwoch, SANSA, Chair)**

Jane reported that there are no issues requiring discussion or decision by the SEC. She noted that the Working Group was represented at the ESA Living Planet Symposium sessions on providing practical EO education for students and teachers by ESA and DLR. The sessions were a great success, with around 3000 people participating over the course of the meeting. Jane closed the WGCapD report by noting that dates for the SAR training workshops are currently being finalised.

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| **214-01** | *WGCapD Chair to share the final report and presentation materials from the ESA Living Planet Symposium event on providing practical EO education for students and teachers.* | **SEC-215** |

**WGCV (Albrecht von Bargen, DLR, Chair)**

WGCV was not represented at SEC-214, however Albrecht sent his apologies to the CEOS Chair ahead of the meeting along with a written report. SEC was directed to the written report for an update on the activities of WGCV, and no issues requiring discussion or decision were noted.

1. **CEO Report**

Jonathon Ross (GA, CEO) reported on the CEOS response to a request for input on the *United States 2017 National Plan for Civil Earth Observations.* A draft letter has been circulated to CEOS SEC for comment and some specific feedback from EUMETSAT has been addressed in the most recent update. The deadline for CEOS input is the 15th of July, and Jonathon called for any further feedback to be sent immediately.

Kerry Sawyer (NOAA) noted that the letter has a slight error in the full name of NOAA, however the rest of the content is good. No other issues were noted by the SEC.

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| **214-02** | *SEC to provide final input on the CEOS letter regarding the United States 2017 National Plan for Civil Earth Observations.* | **14th July 2016** |
| **214-03** | *CEO to revise the CEOS letter regarding the United States 2017 National Plan for Civil Earth Observations to incorporate feedback from NOAA and any other submissions received via email, and to send a final copy to the CEOS Chair for communication to the United States Office of Science and Technology Policy.* | **15th July 2016** |

Jonathon reported that Mohammed Bin Rashid Space Centre (MBRSC) have been advised that it will not be possible to consider their application for CEOS membership this year as the SEC will not have sufficient time to consider their eligibility before Plenary due to a lack of response to questions.

Marie-Josée Bourassa (CSA, DCEO) reported on the CEOS UN SDG efforts. At the SIT-31 SDG side meeting it was agreed that CEOS should compile information about the responses of its agencies to the SDGs, for use as a communication tool. Kim Holloway (NASA, SEO) and Flora Kerblat (CSIRO) have prepared a response template, and it would be much appreciated if agencies could respond to the call for information. The template asks agencies to share examples of their efforts to respond to the SDGs and the responses will be central to the discussions planned for SIT Technical Workshop.

Jane Olwoch (SANSA) reported that she will be meeting with Statistics South Africa next week to discuss the SDGs. An action was recorded for Jane to coordinate discussion topics/messaging with Marie-Josée and Flora ahead of the meeting.

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| **214-04** | *Jane Olwoch to coordinate discussion topics/messaging with Marie-Josée Bourassa and Flora Kerblat ahead of her SDG meeting with Statistics South Africa.* | **15th July 2016** |

1. **GEO SEC Report**

Osamu Ochiai (GEO SEC) reported briefly on the 37th GEO ExCOM, adding to Stephen Briggs’ earlier report. Formal minutes of the ExCOM are being finalised and will be shared with CEOS SEC once available. Osamu noted that there was some confusion amongst the ExCOM on the state and vision of GEOSS, and it is clear that work is needed to reach a consensus. He added that the role of the Programme Board in the Foundational Task process is also unclear and requires further discussion. The ExCOM also discussed the GEO engagement strategy and the private sector strategy, and these will be progressed ahead of GEO-XIII Plenary.

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| **214-05** | *Osamu Ochiai to share the final reports from the GEO Programme Board meeting as well as the 37th GEO ExCOM once they are finalised.* | **SEC-215** |

Osamu noted that invitations to GEO-XIII Plenary have been issued, and delegations need to be confirmed by July 31st. Marie-Josée Bourassa (CSA, DCEO) confirmed that the invitation was received. Kerry Sawyer (NOAA) noted that the invitation email was in excess of 25MB due to attachments, and this is likely the reason that the CEO did not receive the message. Osamu noted the issue and will follow up on the GEO side.

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| **214-06** | *SEC to nominate representatives for the CEOS delegation to GEO-XIII Plenary to the CEO team.* | **22nd July 2016** |
| **214-07** | *CEO team to coordinate and submit the CEOS delegation list for GEO-XIII Plenary to Osamu Ochiai/GEO SEC.* | **31st July 2016** |

Jonathon Ross (GA, CEO) summarised some points from the ExCOM report that Stephen Briggs (ESA, SIT Chair) circulated to SEC members:

* There was reportedly some confusion around the purpose of the ‘State of GEOSS’ document, given that a multi-year strategic planning process to chart the way forward for GEO in the next decade has just been completed.
* A number of the subjects presented in the GEO Programme Board (PB) report had been carefully prepared and reviewed by subgroups of the PB, however they were conveyed to the ExCOM by the PB co-chair quite differently to what was previously agreed. Stephen has suggested that there might be a need to clarify whether co-chairs are supposed to directly represent the PB or rather formulate their own reports based upon the input of the PB.

Osamu spoke briefly about the WMO Executive Council, noting that a GEO-WMO collaboration framework paper was presented and approved at the meeting. The document identifies 11 collaboration areas. Osamu will share the paper with CEOS SEC.

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| **214-08** | *Osamu Ochiai to share the GEO-WMO collaboration framework paper with CEOS SEC.* | **SEC-215** |

1. **SIT Chair Report**

Matthew Steventon reported on behalf of the ESA SIT Chair team. The SIT Chair team is currently holding a series of teleconferences with all CEOS Working Groups and Virtual Constellations. The consultation calls are progressing well, with only two VCs absent:

* OSVW-VC: the NOAA co-lead was unavailable during the period, the second co-lead (from EUMETSAT) has changed roles within the agency, and no response was received from the new co-lead from ISRO. The SIT Chair team recommends that OSVW leadership should be consolidated and a replacement for the EUMETSAT co-lead should be identified.
* OST-VC: the OST-VC teleconference was scheduled for the time chosen by the co-leads, however none of them joined.

Preparations for SIT Technical Workshop are ongoing. The agenda was updated following feedback from CEOS SEC and the next update of the draft will be circulated on July 18th. The final version will be issued on the 23rd of August. The draft agenda for the VC/WG Day will be circulated shortly after the last VC/WG consultation teleconference, during the second half of July. The CEOS Carbon Strategy session will be a part of the VC/WG Day on the 13th of September.

Accommodation bookings at St. Anne’s College will remain open until the meeting. Bookings should be made via the SIT Technical Workshop website: <http://ceos.org/meetings/2016-sit-tech-workshop/> Online registration for the meeting itself will close on August 1st. As of the 12th of July, 39 people have registered.

1. **Systems Engineering Office (SEO) Report**

Brian Killough (NASA, SEO) reported some Data Cube related updates:

* On July 13th Brian presented a lunch seminar at the World Bank titled: *“Data Cubes: Helping Countries Improve Satellite Data Management”*, as a replacement for the cancelled workshop. Around 50 people attended the seminar, which was followed by a number of side meetings. The World Bank maintains high interest in the CEOS Data Cube and is exploring approaches to utilize the infrastructure to support global applications in regions where they have established capacity building loans for developing countries – in particular for water management in West Africa. The World Bank has expressed interest in integrating the Data Cube into their 2017 Work Plan, and the SEO would like to provide them with a Landsat–Sentinel-2 Data Cube.
* The SEO and CSIRO (Alex Held) will travel to Colombia on August 30th to meet with IDEAM (Institute of Hydrology, Meteorology and Environmental Studies) and researchers from the University of Andes. The meeting will focus on advanced Data Cube work in support of Colombia’s forest and water management applications.
1. **Brief Status Updates of Ad Hoc Initiatives**

**SDCG for GFOI (Matthew Steventon, SDCG Secretariat)**

Matthew Steventon reported on behalf of the SDCG for GFOI. He noted that:

* Preparations for the London GFOI briefing (September 6th) and SDCG-10 (September 7th – 9th) in Reading are progressing as planned. Good participation is expected from UK representatives at the dedicated UK session of SDCG-10.
* There are continuing discussions within GFOI around an end-to-end country demonstration, which would include implementation of the SDCG’s Space Data Services and SEO developed tools (e.g. Data Cube).
* The Global Data Flows Study is reaching its conclusion. Feedback from countries and intermediaries has been received, and SDCG will bring provisional conclusions and recommendations to SIT Technical Workshop.
* SDCG members remain engaged in LSI-VC, with a number participating in the upcoming LSI-VC-2 meeting.

**CEOS Ad Hoc Working Group on GEOGLAM**

The co-leads of the CEOS Ad Hoc Working Group on GEOGLAM were not present at SEC-214.

Alex Held (CSIRO) reported the latest on the GEOGLAM RAPP (Rangelands and Pasture Productivity) initiative, noting in particular that the team recently had a very effective meeting in Pretoria, South Africa. Alex also noted the recent GEOGLAM Advisory Committee (AC) meeting, during which AMIS representatives spoke very highly of GEOGLAM.

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| **214-09** | *Alex Held to share the full reports from both the GEOGLAM AC and RAPP meetings once available.* | **SEC-215** |

**Water Strategy Implementation Study Team (Shizu Yabe, JAXA)**

Shizu Yabe (JAXA) reported on behalf of Chu Ishida (JAXA, WSIST Lead). Shizu noted that the first draft of the precipitation-soil moisture observation synergy case study is being prepared and is now expected by the end of July. To collect inputs for the feasibility study, three consultation teleconferences on the priority parameters (evapotranspiration, river run-off/surface water storage, and groundwater) are being held with external experts during the week of July 11th. The feasibility study remains on track for presentation at CEOS Plenary.

**Future Data Access & Analysis Architectures (FDA) Ad Hoc Team (Rob Woodcock, CSIRO, co-lead)**

Rob Woodcock (CSIRO, FDA AHT co-lead) directed SEC to the written report for a full update on the team’s progress. He noted that the report has recently undergone a full editorial review and writing teams have been assigned to the new structure. The first draft of the report (including recommendations) is expected by the end of July.

**Non-meteorological Applications (NMA) for Next Generation Geostationary Satellites Ad Hoc Team**

The co-leads were not present at SEC-214. Alex Held (CSIRO, CEOS Chair representative) directed SEC to the written report for an update on the activities of the NMA AHT.

1. **AOB**

**CEOS Chair Initiatives for 2017**

Steve Labahn (USGS) noted the recently circulated paper that outlines the proposed USGS CEOS Chair initiatives for 2017. The two initiatives are:

1. Implementation of the Future Data Architectures report recommendations.
2. An initiative on moderate resolution sensor interoperability.

The proposals will be elaborated over the weeks leading up to SIT Technical Workshop, and Steve requested initial SEC feedback by Friday the 22nd of July.

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| **214-10** | *CEOS SEC to review the 2017 CEOS Chair initiatives proposal paper and provide Steve Labahn/USGS with any feedback.* | **22nd July 2016** |

**OCEANS’16 MTS/IEEE**

Kerry Sawyer (NOAA) noted that CEOS has been asked to participate in a panel at the OCEANS’16 Marine Technology Society/IEEE meeting, which will be held from the 19th to the 22nd of September in Monterey, California. The panel session will aim to address the roles and responsibilities of various organizations that have a stake in global ocean observing.

Kerry asked the SEC whether anyone is planning to attend and might be able to represent CEOS with a 10-minute presentation and participation in the subsequent panel Q&A session. Alex Held (CSIRO) noted that the CEOS Chair team is not planning to attend. Kerry has shared the invitation with Paul Di Giacomo (NOAA), however she is yet to receive a response. Jonathon Ross (GA, CEO) offered to explore the possibility of attending on behalf of CEOS.

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| **214-11** | *Kerry Sawyer to re-send the call for CEOS participation in the OCEANS’16 MTS/IEEE panel session. SEC members to circulate the announcement within their agencies to try and find a CEOS representative.* | **29th July 2016** |

**2018 CEOS Chair Position**

Robert Husband (EUMETSAT) reported that there is no update on the possibility of the European Commission serving as the 2018 CEOS Chair beyond what was shared at SEC-213.

Jonathon Ross (GA, CEO) reported that the discussions with EC appear positive, and the CSIRO CEOS Chair team is actively communicating with ESA and EUMETSAT to ensure that all possibilities remain open.

**2016 CEOS Plenary**

Caroline Bruce (CSIRO) updated SEC on the arrangements for CEOS Plenary. Online registrations are currently open (see: <http://ceos.org/meetings/30th-ceos-plenary/>) and side meeting requests can be submitted via the form on the meeting website.

Participants need to book their own accommodation (links/codes are available on the meeting website) and Caroline suggested that bookings be made as soon as possible. A number of CEOS representatives will be giving presentations at the STEMx event planned for 10:00am to 11:30am on Thursday the 3rd of November. More information on the event can be found by following the link on the Plenary website.

The draft meeting prospectus (including week at a glance) has been shared with the CEOS community for review. Caroline requested that SEC provide feedback by Friday the 22nd of July, so that any changes can be integrated into the first draft of the meeting agenda.

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| **214-12** | *SEC to provide feedback on the draft CEOS Plenary meeting prospectus and week at a glance.* | **22nd July 2016** |

In response to a question from Christine Bognar (NASA), Pascal Lecomte (ESA, WGClimate Chair) confirmed that there is no WGClimate side meeting planned for CEOS Plenary.

**COVERAGE**

Christine Bognar (NASA) spoke briefly about the CEOS Ocean Variables Enabling Research and Applications for GEO (COVERAGE) initiative on behalf of Eric Lindstrom (NASA). This concept was first presented by Eric in 2013, however the proposal has been on hold since then, as it required further socialization within the ocean community. The proposal will be brought back for CEOS consideration at the 2016 SIT Technical Workshop, with a presentation on the status and necessary next steps (which will be in line with the CEOS New Initiatives Process).

Christine thanked the SIT Chair for the opportunity to have a COVERAGE presentation at SIT Technical Workshop. The presentation will be given by Dr. Vardis Tsontos and Dr. Jorge Vazquez.

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| **214-13** | *SEC to review the COVERAGE presentation slides (circulated with the final written reports for SEC-214) and send any feedback to Eric Lindstrom and Christine Bognar.* | **SEC-215** |

Eric Lindstrom (NASA) noted that the COVERAGE concept has been tested in a pilot project, and he hopes that the effort can be expanded in collaboration with CEOS.

1. **Next Meeting and Adjourn**

Alex Held (CSIRO, CEOS Chair representative) thanked everyone for attending, confirmed that CEOS SEC-215 will be a face-to-face meeting held on Tuesday the 13th of September (just before SIT Technical Workshop), and closed the meeting.

1. **Appendix – Written Reports**

Please see the attached document for the written reports submitted by:

* Working Group on Disasters (WGDisasters)
* CEOS/CGMS Working Group on Climate (WGClimate)
* Working Group on Information Systems and Services (WGISS)
* Working Group on Capacity Building and Data Democracy (WGCapD)
* Working Group on Calibration and Validation (WGCV)
* CEOS Executive Officer Team (CEO)
* Strategic Implementation Team (SIT)
* CEOS Systems Engineering Office (SEO)
* Space Data Coordination Group for the Global Forest Observations Initiative (SDCG-GFOI)
* Water Strategy Implementation Study Team (WSIST)
* Future Data Access and Analysis Architectures Ad Hoc Team (FDA-AHT)
* Non-meteorological Applications for Next Generation Geostationary Satellites Ad Hoc Team (NMA-AHT)