

CEOS SEC Report

(two pages max.)

Entity: CEO

Prepared By: Steven Hosford (ESA/CNES)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- **CEO/DCEO.** The actions identified at the 30th November TC have not been progressed significantly.
- **CEOS 2019-2021 Work Plan.** Development of the Work Plan is progressing with approximately 80% of the Work Plan tasks consolidated. The remaining inputs from furloughed staff in the US and updates of the Work Plan text that have largely not been completed as requested, will mean that it is unlikely a first draft (V0) of the Work Plan will be available for review by 25th January as initially scheduled. However, depending on the situation in the US and the subsequent responsiveness of returning staff, a first draft could be available shortly after this date.
- **CEOS-GEO bilateral meeting.** The agenda was distributed by SIT Chair (Kerry) on 14th December. As to be reported by Steve Volz, the meeting has been postponed and will be rescheduled (current target date is within 18th February – 1st March).
- **CEOS membership status (Plenary Action 32-01).** Of the 62 CEOS members and associates, 54 emails with a personalised letter were sent. CEOS-SEC was informed that among the CEOS members, 4 letters were not sent and among the CEOS Associates, 4 letters were not sent for diverse reasons (no name/email address of agency representatives most frequently). In addition, emails to 2 additional CEOS members bounced back. A significant number of responses have been received and updates requested in the CEOS mailing lists and CEOS Agency pages on the CEOS website. These changes will be implemented following a return to normal in the US.

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- **CEOS 2019-2021 Work Plan.** Proposal of a new category of Work Plan deliverable representing ongoing “CEOS Services” such as Newsletter, RadCalNet, WGISS Connected Data Assets, MIM Database. The objective of this proposal is to highlight these key ongoing CEOS services to the international community, and to manage separately the monitoring of these deliverables to the other time constrained deliverables.
- **Vision for WIGOS in 2040.** This document proposed by WMO was sent to CEOS Agencies for comment on 13th December. One agency has commented on the document. If CEOS wishes to submit comments to WMO, these must be sent by 18th January.
- **2020-2022 GEO Work Programme Activities.** A call for GEO Work Programme Activities was distributed by GEO SEC and forwarded to the CEOS community on

14th December. The CEO has not been copied on any CEOS agency responses to this call for activities. One of the inputs requested in the ongoing development of the CEOS Work Plan is links to the GEO Work Programme for each CEOS deliverable. Links between the CEOS Work Plan and the GEO Work Programme is an important subject which is discussed in detail in the CEOS-GEO bilateral. The outcomes of this discussion may provide some CEOS inputs to this call for activities despite the fact that these outcomes may now come later than the deadline for inputs to this call (deadline is 15th February).

Other highlights, activities, actions, projects, collaborations

(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Point 2

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- CEOS-GEO Bilateral – postponed. To be rescheduled to end February.

Attachments

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

CEOS SEC Report

(two pages max.)

Entity: GEO SEC

Prepared By: Akiko Noda (GEO Secretariat)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- Please see the attachment.

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- NA

Other highlights, activities, actions, projects, collaborations

(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Call for 2020-2022 GEO Work Programme Activities
The GEO Secretariat and the GEO Programme Board announced the call for a proposal for a new or an updated implementation plan for the 2020-2022 GEO Work Programme on 14 December. The detailed information is available at the following website,
http://www.earthobservations.org/gwp2020_dev.php
The deadline for submission is 15 February.
- Call for GEO-Amazon Earth Observation Cloud Credits Programme
As the GEO Secretariat Director mentioned in his speech at the GEO Plenary, the GEO Secretariat successfully announced the call on 18 December after intensive consultation from ExCOM members. Agencies and research organizations of developing countries can apply to this programme. Recipients are allowed to access to up to \$100,000 of Amazon Web Services cloud credits over a 3-year period in order to process and analyse big Earth observation data for sustainable development. The more information is on the GEO Website,
<http://www.earthobservations.org/aws.php>
The deadline for submission is 31 March.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- 2nd Expert Advisory Group Meeting, 5-6 February, Geneva
- Programme Board Meeting, 7-8 February, Geneva
- CEOS-GEO Bilateral meeting, February (TBD), Geneva
- 4th GEO Data Providers Workshop, 23-25 April, Vienna

- GEO Symposium, 27–29 May, Geneva
- 2019 GEO Ministerial Summit, 4-9 November, Canberra

Attachments

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

CEOS SEC 246 Report

(two pages max.)

Entity: WG Disasters

Prepared By: Simona Zoffoli (Italian Space Agency), David Green (NASA)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- None

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- None

Other highlights, activities, actions, projects, collaborations

(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Geohazard Supersites and Natural Laboratories (GSNL)
 - Continuous provision of data by Space Agencies to the established Supersites
 - Biennial reports from Hawaii and Enceladus Supersites received for review
 - Renewal Letter sent to the Iceland Supersite PoC.
- GEODARMA
 - 1st GEO pilot project (for flooding in Myanmar) approved and arrangements finalised for data access, but data has yet to be used; regional assessment work is proceeding in Latin America and the Caribbean and should be completed in early 2019. UNESCAP's two project proposals are still under development and have been delayed due to the project schedule, independently of GEO-DARMA
- Seismic hazard demonstrator
 - On-going activities on active fault mapping and on capacity building in coordination with GSNL. The team started ordering data to Space Agencies involved in the project. An updated description for the CEOS web page has been provided.
- Geohazards Lab
 - On-going promoting hosted processing and raising awareness (capacity building, training courses, workshops) and the integration of services and tools to better meet community needs. The first Geohazards Lab working group meeting was held with about a dozen participants from the user community. There is a need to standardize SAR and InSAR products, and the group is drafting a framework to address this issue.
- Volcano demonstrator

- On-going activities to define a detailed implementation plan with regional leaders and tasks. Consolidation of the data plan and start ordering data to Space Agencies involved in the project
- Recovery Observatory (RO)
 - RO team has held a first round of discussions with key international stakeholders (EU, World Bank, UNDP, UNEP) to extend RO experience on a generic basis after major events. A face-to-face meeting took place on December 5-6 to take stock of how satellite data is currently used to support Recovery, and how this can be improved.
- Landslide Pilot
 - The landslide project is progressing smoothly. Data is flowing to users and products are being generated. There was discussion about how to store the data over the long term so that multiple users can access it easily. A meeting will be held during the AGU week in DC to discuss this. ESA's GEP is available as one option to serve as a repository of all pilot data.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- Living Planet Symposium (May, 2019): The jointly proposed session (GEO/CEOS) has received a large number of papers that have been peer-reviewed. The convenors have selected the 6 requested oral presentations for the session.
- CEOS WG Disasters meeting n.11, Harokopeion University, Athens, Greece, March,5-7, 2019. The preliminary agenda has been circulated as well as the information package.
- CEOS WG Disasters meeting n.12, University of Iceland /Nordic Volcanological center, Iceland, September, 23-27, 2019

Attachments

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CEOS SEC-246 Report

(two pages max.)

Entity: WG Climate

Prepared By: Jörg Schulz (EUMETSAT)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- Action 237-03: Could not finish discussions with VCs on implementation of actions from the Coordinated Action Plan before Christmas. This is further hold up by the US shutdown, e.g., for LSI VC. I will try to scope an action on the implementation of the coordinated actions in the CEOS Workplan 2019-2021 until end of next week.

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- Postponed ECV Inventory update deadline to 28 February 2019 to give US agencies a chance to update. If the US shutdown continues, we may extend further. This bears the risk that the gap analysis needs customisation to the time remaining until Plenary 2019;
- Received invitation from SCO for first international meeting on 1 February at CNES headquarter. In line with the mandate given by SIT and Plenary, WG Climate Chair will attend the meeting and will encourage SCO: a) to focus on downstream activities and b) to give appropriate recognition to existing initiatives (e.g. work and role of WGClimate). CNES announced a concept note on SCO prior to the meeting but it hasn't arrived yet;

Other highlights, activities, actions, projects, collaborations

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- Prepared draft for CEOS Workplan 2019-2021, refined version will come next week;
- WCRP has published its new Strategic Plan. WCRP will now develop a transition plan to its new strategic priorities and then aims at an implementation plan that may see also structural changes. We strive for keeping a body in which WGClimate can represent the CEOS and CGMS agencies and learns about the needs for space data in climate research.
- Action 237-08: Still in progress as we discovered a flaw with the Excel export of the ECV Inventory from climatemonitoring.info. We will fix this and then contact SEO.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- FURTHER PLANNED JOINT MEETING WITH GCOS AND WDAC IN MARRAKECH, MOROCCO IN 18-22 MARCH 2019. STILL WORK NEEDED ON THE JOINT PART OF THE AGENDA AS GCOS SEEMS TO HAVE A DIFFERENT UNDERSTANDING OF IT AS WGCLIMATE AND WDAC. WMO HAS SOME ISSUES WITH THE MEETING LOGISTICS. OFFICIAL INVITATION TO THE WGCLIMATE MEETING WILL FOLLOW WHEN THIS IS SETTLED.
- NEED TO ELABORATE MEETING PLACE FOR WGCLIMATE #11 WHICH SHOULD BE PRIOR TO THE 2019 TECHNICAL WORKSHOP. HAWAII IS ONE OPTION BUT FEASIBILITY NEEDS TO BE EXPLORED.
- WMO SCOPE-CM EXECUTIVE PANEL PLANS A MEETING WITH ITS PROJECTS AT WMO ON 7&8 FEBRUARY TO DISCUSS ITS STATUS AND FUTURE. WGCLIMATE CHAIR WILL ATTEND.

Attachments

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

CEOS SEC 246 Report

Entity: WGISS (Working Group on Information System and Services)

Prepared By: Mirko Albani - Chair (ESA), Rob Woodcock – Vice-chair (CSIRO)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- None

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- None

Other highlights, activities, actions, projects, collaborations

(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- WGISS provided inputs for the CEOS 2019-21 Work Plan. WG Terms of Reference might be updated to reflect WGISS mandate in the frame of Future Data Architectures.
- A “CEOS Agencies Participation/Contribution to WGISS” table (showing the different WGISS groups, their scope, CEOS agencies interest/benefits, and skills of representatives) is being finalised, and will be distributed and posted to advertise and stimulate participation to WGISS.
- *Collaborations with:*
 - **COVERAGE Initiative** to make some key thematic datasets discoverable and accessible through the WGISS Connected Data Assets. COVERAGE team and data providers analysing procedure based on utilisation of FedEO for registration in IDN.
 - **WGCv** on four identified topics. Activities ongoing. Next joint teleconference scheduled in February 2019.
 - **Carbon Team** on prototype carbon portal development. New version issued for review by Carbon Team and opened to the wider user community in December 2018. Carbon Portal handover and governance after final release to be defined. Carbon Portal development team looking into the possibility to support a case study on forest monitoring in the Mekong area. Next teleconference planned in February 2019.
 - **WGClimate** on ECV inventory Version 2.0 datasets registration in IDN as first step for accessibility through WGISS Connected Data Assets Infrastructure. Registration of an initial set of data progressing in coordination with WGClimate chair using the FedEO dedicated “fast registration” procedure also used in the frame of the COVERAGE/WGISS activity. Second batch of data will be registered in coordination with WGClimate during ECV Inventory update to V3.
 - **WGCapD** for technology and user oriented webinars. WGISS support for FDA demonstration during SAR training/meeting in Vietnam being finalised with WGCapD.
 - **Virtual Constellations** to update the inventory of Virtual Constellations datasets and ensure discoverability/accessibility through WGISS Connected Data Assets infrastructure. Inventory update to be started.
 - **GEO:** Robert Woodcock (CSIRO) nominated as WGISS representative in the GEO Expert Advisory Group (EAG). WGISS (Mirko Albani, Rob Woodcock) supporting the organization of the 4th GEO Data Providers workshop which will be hosted by UNOOSA in Vienna Austria from the 23rd to the 25th April 2019.
- *Data Preservation and Stewardship*
 - White Paper on “Data Stewardship Reference Model and Measuring Earth Observation Data Usage Best Practice” finalised and issued.

- Proposal for GEO Data Management Principles Implementation Guidelines (DMP IG) improvement/update on the basis of CEOS WGISS Maturity Matrix being drafted.
 - Definition of stewardship process use cases to be included in a CCSDS Green Book will start in collaboration with WMO.
 - EO Data Usage metrics best practice finalised and issued. This closes action CEOS Work Plan 2018-20 action FDA-13 on WGISS.
- *Data Discovery and Access (WGISS Connected Data Assets Activities)*
- Possible implementation of a map based front-end/portal within the IDN for CEOS data discovery and access is being discussed.
 - 150 EO data collections from JAXA have been registered in IDN. Access at granule level will be addressed in the upcoming months; NOAA datasets being registered/updated in the International Directory Network (IDN) and granule search/access is being implemented.
 - CWIC tests with National Remote Sensing Center of China (NRSCC) ChinaGEOSS platform for metadata harvesting to be started.
 - A simplified procedure for collections/granules discovery and access through FedEO and automatic registration in IDN is being used to increase number of partners and collections and in different cooperation activities.
 - All FedEO data collections are being registered in the IDN; granule access to FedEO datasets registered in the IDN will be provided through FedEO.
 - Activities started with JAXA for discovery/access through WGISS CDA and automatic registration in IDN; activities progressing with DLR and EUMETSAT and to be resumed with ROSCOSMOS.
 - Granule search and access to Essential Climate Variables (ECV) and COVERAGE data collections is being implemented.
 - CEOS IDN added in the catalogues visible and searchable through the GEOSS Platform. This will increase visibility of CEOS contribution to GEO/GEOSS.
 - WGISS Connected Data Assets Client Partner document to describe process to access WGISS CDA from client portals finalised by System Level Team (SLT) and issued.
- *Interoperability and Use*
- Future Data Architectures:
 - FDA actions assigned to WGISS in the CEOS 2018-2020 Work-plan are being actively discussed and addressed by WGISS members with substantial progress.
 - Open source Software and tools inventory lists now more than a hundred items; DB implementation solution is under analysis in coordination with SEO.
 - First version of FDA inventory table under review.
- *Technology Exploration:*
- Next webinar will focus on “Tools and Data Interoperability Demonstrations” and will be organised in cooperation with WGCapD. It will consist in a dedicated workshop during WGISS-47 meeting.
 - Dedicated sessions on “Cloud Computing services” and on “Artificial Intelligence and Machine Learning application in EO” are being organised during WGISS-47 meeting.

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- 2019 Conference on Big Data from Space (BiDS'19): 19-21 February 2019, Alte Kongresshalle, Munich, Germany.
- WGISS-47 – April 29 to May 02, Silver Spring, Maryland (MD), USA.
- ESA 2019 Living Planet Symposium, Milan, 13-17 May 2019: focus on how Earth Observation contributes to science and society, and how disruptive technologies and actors are changing the traditional Earth Observation landscape, which is also creating new opportunities for public and private sector interactions.

CEOS SEC Report

(two pages max.)

Entity: WGCV

Prepared By: Jennifer Zhu on behalf of Cindy Ong (CSIRO) & Akhiko Kuze (JAXA)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- None

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- None

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- The 25th SAR subgroup workshop was held at CONAE, Buenos Aires, Argentina December 5-7 2018
- GHG action on Atmospheric Composition:
 - The Expert Meeting will be held in conjunction with the International Workshop on Greenhouse Gas Measurements from Space (IWGGMS-15) in Sapporo in early June 2018.
 - This date is seen as the most efficient to bringing the key GHG ground-based and satellite experts together and it is also the week after the ACC also to be held in Japan.
- Land Product Validation updates:
 - Chair transition: Miguel O. Román (NASA) to Fernando Camacho (EOLab/ U. Valencia). A new Vice-Chair is being selected.
 - WGCV action list: CARB-16 actions are progressing well, including the biomass protocol writing and a paper on biomass validation (in review).
 - A CEOS LPV VI focus area workshop was held on 12 December 2018 in Washington, DC, as a side event to AGU 2018 Fall Meeting. The workshop was focused on review of new VI products, validation datasets and validation protocols for VI products.
 - American Geophysical Union 2018: CEOS LPV Fire, LST, Surface Radiation, VI and biomass contributions.
 - Global Climate Observing System: Contribution to the GCOS Surface Reference Network (GSRN) report (in review).

Upcoming meetings or events

(Dot points, e.g. meetings, conferences of relevance, visits)

- IVOS Subgroup will hold a meeting at CSIRO in Perth, Australia March 25-29, 2019 including a tour of the proposed RadCalNet site north of Perth.

- Pre-flight calibration workshop is being scheduled for mid June 2019
- WGCV Plenary will be held in the week of 15th July 2019 in Perth, Western Australia
- SECOND ACIX2/CMIX WORKSHOP TO BE HELD AT ESRIN (EVALUATION OF THE COMPARISON RESULTS) IN THE TIME FRAME OF JUNE TO SEPTEMBER 2019.

Attachments

(e.g. pictures, figures, graphs, links – for use in overall CEOS reporting and as website resources etc.)

CEOS SEC Report

(two pages max.)

Entity: AHT SDG

Prepared By: Flora Kerblat (CSIRO)

- “CEOS-32-11: SDG-AHT Co-Leads are tasked to bring a proposal on the way forward organizationally for the SDG activity within the CEOS structure.”: The co-leads are discussing about the best way to move forward for next few months/years within CEOS – to provide relevant inputs for the next CEOS WP and to close an action from the Plenary at SIT
- Argie K. (NASA) organised and led a webinar about “SDG awareness” before Christmas, in collaboration with the WGCapD. This included two sessions on Dec 19. Session 1: 23 participants; Session 2: 11 participants = Total: 34 from (out of 88 registered) but please note the delay to advertise was extremely short (1.5 weeks) and the timing was not ideal, just before holidays
- We should receive results from the live polls and post webinar surveys promptly – to be shared soon with the team. People seemed to have enjoyed the webinar (based on some recent e-mails and live polls during the webinar) and have found it useful. More to be shared soon
- The AHT SDG is working with Brian K. (SEO/NASA) to “Develop and demonstrate a set of Data Cube algorithms that use CEOS satellite data and can be applied to several SDGs (e.g. 6.6.1, 11.3.1, 15.3.1). Seek feedback from statistical agencies and other stakeholders to understand how to improve these algorithms.”
Planned for later in 2019
- EO in the Pacific: CSIRO organised a first workshop in October in Brisbane (with the support of others like GA, and CNES) to collect Pacific island needs in terms of EO data. As a follow-up and in the context of the SCO (Space Climate Observatory) establishment, CSIRO is working with CNES/French Embassy in Australia and others to plan another meeting in the region in 2019 to allow EO data experts organise more technical sessions and improve EO access for the Pacific Islands to meet specific needs (water level rise, climate change, or land degradation monitoring, etc.)
- Neil S. (CSIRO) and Marc P. (ESA) are working on the GEO LDN initiative (leading a sub-team of the AHT SDG) set-up with others – more to be shared soon
- Call for submission – HLPF 2019 (success stories and lessons):
 - “An event will be organized in the lead-up to the 2019 HLPF convened under the auspices of the General Assembly to showcase a selection of the good practices and success stories and to present the main findings of the evidence-based stock-taking. It is hoped that the submission, collection, analysis and dissemination of good practices, success stories and lessons learned will help galvanize the momentum for implementation of the 2030 Agenda and the SDGs.

- Submissions can be made until 28 February 2019 by using a web-based portal.
- Next SDG-AHT meeting: a call will happen soon with the co-leads Alex (CSIRO) and Marc (ESA)/Argie (NASA)/Flora (CSIRO) to discuss further all this and take stock of current and future activities (incl. next face-to-face meeting?)