

CEOS SEC Report

For CEOS SEC-281

Entity: CEOS Chair Team

Prepared By: NASA

Updates on issues raised during the last CEOS SEC teleconference (Dot points)

- ❖ We continue advancing implementation of the 2021 CEOS Chair theme through the activities reported to the Sec last month in the following categories:
 - MIM Database
 - Data Cloud Deployments
 - Earth Analytics Interoperability Lab (EAIL)
 - Open Data Cube (ODC) Sandbox
 - Training Webinars (Jupyter Python notebook training webinar)
 - Climate Use-Cases
 - CEOS Communications and Website
 - EOTEC DevNet

Issues requiring discussion/decision during current CEOS SEC teleconference (Dot points)

- ❖ As noted on the final SEC-281 meeting agenda.

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)

Brief review of actions that the SEC has overseen in preparation for the CEOS Plenary:

- ❖ **CEOS 2022 Chair**
The nomination from CNES was endorsed virtually by CEOS Principals.
(This action carried over from 2020 and has been completed.)
- ❖ **CEOS 2023 Chair**
The SEC now has the nomination of GISTDA from the Asia and Pacific region, and it will be presented for endorsement at the CEOS Plenary (Nov. 1-4).
- ❖ **WGDisasters Vice Chair**
The nomination from CONAE now has consensus of the WG, and it will be presented for CEOS Plenary endorsement.
- ❖ **WGCapD Chair**
The nomination from UNOOSA now has consensus of the WG, and it will be presented for CEOS Plenary endorsement.
- ❖ **WGCapD Vice Chair**
No nomination yet. We, as the SEC, stand ready to help. Let's discuss at this or our next SEC meeting.
- ❖ **WGISS Vice Chair**
No nomination yet. Same as above. We, as the Sec, stand ready to help if needed.

Upcoming meetings or events

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

The items below are carried over from last month as a reminder:

- ❖ 2nd Climate Observations Conference of CGMS and WCRP (update: now moved to 2022).
- ❖ IAC (Oct. 25-29; Dubai): The CEOS Chair has been invited to give a presentation on “Earth Observation International Cooperation” during Session B1.1. on Monday, Oct. 25. The segment consists of 30 minutes (presentation and Q & A).
- ❖ COP26 (Nov. 1-12; Glasgow): We contacted the U.S. Department of State regarding the Annual Joint Statement from Space Agencies to SBSTA. We received a “yes” on the matter of a member of the U.S. Delegation delivering the Joint Statement.
- ❖ CEOS Plenary (Nov. 1-4; Virtual): As we mentioned during SEC-278, the plan is to have a virtual plenary over 4 days (3 hrs. each day). On two days, there will be an early start on the U.S. East Coast, and on two days there will be a start time that favors Asia/Pacific and the Pacific coast of the U.S. We see this approach as being more equitable across CEOS, and we also discussed it with the Troika. Because these dates coincide with the first few days of COP26, the CEOS Chair team will make every effort to deconflict the scheduling of presenters and participants who will need to engage in COP26.

Attachments

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

CEOS SEC-281 Report

Entity: SIT Chair Team

Prepared By: J. Ross (GA) & CSIRO

Updates on issues raised during the last CEOS SEC teleconference

- A draft set of meeting objectives and week at a glance have been distributed for the upcoming 2021 SIT Technical Workshop. Comments have been requested by 16 July COB. The SIT Chair Team is flexible on the timezone for 'COB'. A draft agenda is in preparation.

Issues requiring discussion/decision during current CEOS SEC teleconference

- CEOS participated in the 55th meeting of the GEO Executive Committee on 6 and 7 July 2021. A verbal update will be provided during the SEC meeting. A key topic was the mid-term review of GEO's current Strategic Plan period.

Other highlights, activities, actions, projects, collaborations

Working Teams

- SST-VC and LSI-VC tagups were held on 17 June and complete the set of tagups for this round. SIT Chair team and the VCs continue to find the informal approach to be quite productive and propose to continue in this way.

Carbon & Biomass

- A full session on this theme is planned at the SIT TW with updates from UNFCCC SEC and GCOS hopefully. We have also invited UNEP to provide a briefing on the International Methane Emissions Observatory (IMEO). UNEP is talking with a large number of CEOS agencies and it seems sensible to engage with IMEO in a more coordinated way.

SDGs

- Work continues on the options for governance of the SDG activity within CEOS.

ARD

- SIT Chair Team is working on CEOS ARD Strategy v2.0 – for presentation to SIT Technical Workshop and Plenary.
- Seeking a time for a consultation call with the VCs on the new CEOS ARD Governance Framework. The VCs will be central to a broader CEOS ARD concept.
- WGCV is assessing options to streamline the CARD4L assessment process.

Upcoming meetings or events

- Technical Workshop 2021: Current plan is to be held as a virtual event over two weeks. The first week will have self-organised sessions with narrower thematic/topical focus and self organised. The second week will be more structured, debriefing from each thematic discussion.
 - o Week 1: 6th September
 - o Week 2: 13th September with three 2-2.5h sessions planned.



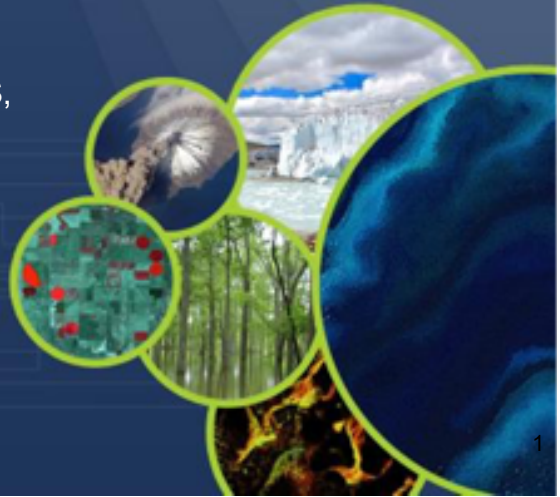
Committee on Earth Observation Satellites

OST-VC

VC Co-Leads: Annick Sylvestre-Baron/CNES,
Estelle Obligis/EUMETSAT

281st CEOS SECRETARIAT MEETING

15 July 2021



OST-VC Members

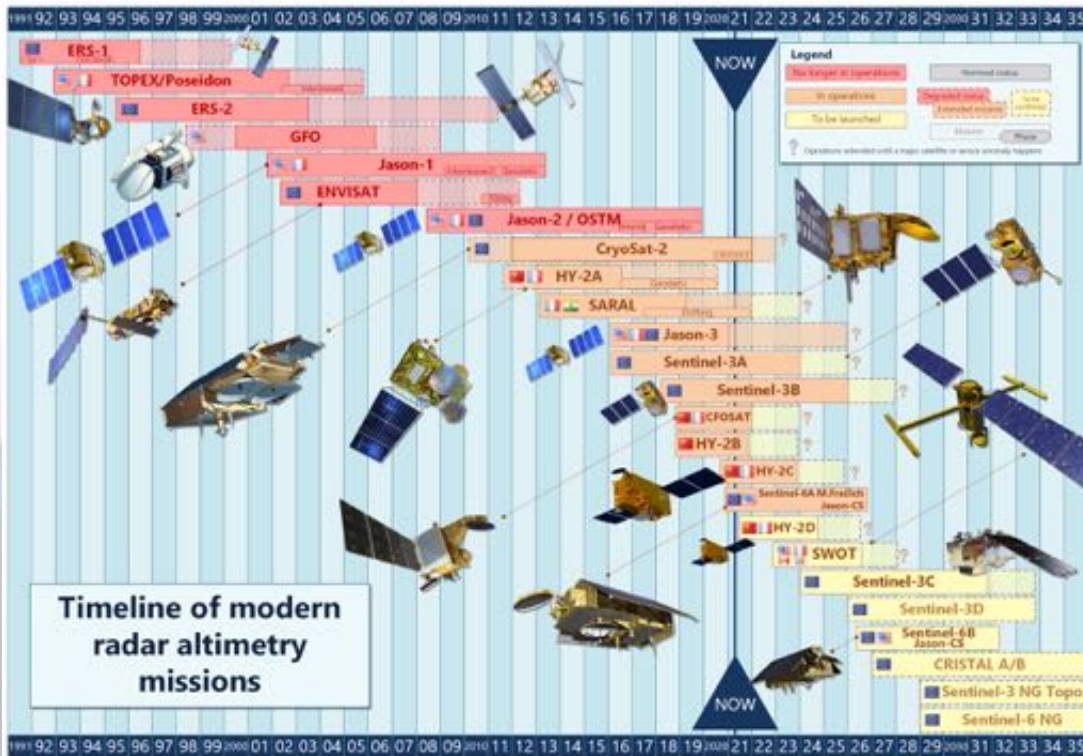


Co-chairs:

- Annick Sylvestre-Baron (CNES)
- Estelle Obligis (EUM)

Other members:

- Craig Donlon (ESA) also OSTST project scientist
- Eric Leuliette (NOAA) also OSTST project scientist
- Gregg Jacobs (US Navy)
- Kai Matsui (JAXA)
- Nadya Vinogradova (NASA)
- Rashmi Sharma (ISRO)
- CNSA – *A new CNSA representative to be nominated*



OST-VC breaking news

Sentinel-6 Michael Freilich

EUMETSAT/ESA/NASA/NOAA/CNES

- Successful launch in November 2020 – Schedule kept despite very difficult circumstances
- Flying in tandem with Jason-3 (trailing J3 by 30 sec)
- S-6 MF Satellite platform, flight operations → **nominal**
- S-6 MF Instruments → **nominal**
 - Poseidon-4 performs extremely well in all modes
 - Power decay is similar to Sentinel-3 and impact under assessment
- **Operational release of Low Resolution NRT/STC products since June**
 - **All performance requirements met**
- CalVal activities continue with High Resolution and NTC products

Next steps

- Oct 21 - Altimetry High Rate NRT/STC/NTC Verification Workshop (S6VT)
- Dec 21 - Final Commissioning Review and decision for operational release to all users of the ALT HR and all NTC products

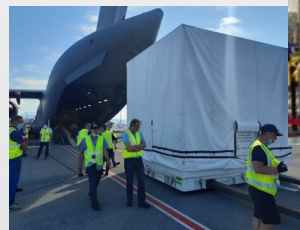
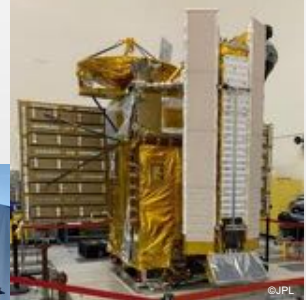


- 1st wide swath altimeter (Karin)
- Highly expected by ocean, hydrology and coastal scientists and users
- 2020 renewal of SWOT ST – ROSES/NASA and TOSCA/CNES calls:
 - 56 projects – 137 ST members from 26 international organizations based in 17 countries involved
- Despite worldwide sanitary crisis, major critical milestones were reached
- April 2021 – The Decision Point Mission Continuation End of April approved the **Launch Readiness Date Not Early Than Nov. 18th 2022**

- **Payload unit (including Nadir & Karin altimeters) delivered by NASA to CNES/Thales Cannes End of June**

- Next steps : AI&T satellite from beginning of August 2021 to September 2022

Payload Module at JPL



CEOS SEC-281, 15 July 2021

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- Mission Requirements developed at ESA (endorsed by Mission Advisory Group) based on EC user needs
 - guaranteeing Continuity of Sentinel-3 and Sentinel-6 topography
 - potential enhancements notably in terms of sampling
- S3NG
 - ESA Phase A/B1 study to start later in 2021
 - Requests early concept down-selection between a constellation of small satellite nadir altimeters, swath altimetry or hybrid of both approaches.
- S6NG
 - Open call on Sentinel-6 sea level stability uncertainty budget (allows to scope evolution of S6NG if required)

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- Delivery was expected Q1 2022

BUT

- 2020 S6VT (ESA/EUM) call for selection of S6 PIs
- 2020 TOSCA(CNES/EUM)-ROSES (NASA/NOAA) call for renewal of OSTST and nomination of the new ST on Q1 2021
- Preparation and commissioning of Sentinel-6
- SWOT replan and science animation
- Parallel Copernicus activities related to the preparation of future Copernicus Altimetry missions (Sentinel-3 C/D units, Sentinel-3 Topography and Sentinel-6 Next Generation, CRISTAL) with important outcomes expected by beginning of 2022
- OSTST meeting in presence has been canceled twice (new date is now March 2022)

New schedule proposed:

- OST-VC members meeting during OSTST (next March)
- Final Delivery in Q1 2023

CEOS SEC-281 Report

Entity: CEO

Prepared By: Marie-Claire Greening

Updates on issues raised during the last CEOS SEC teleconference (Dot points)

CEOS-34-20	COVERAGE, COAST, and SIT Chair Teams to discuss and conclude on how CEOS will coordinate internally and externally on CEOS involvement in the United Nations Decade of Ocean Science for Sustainable Development (2021-2030). Once determined, the SIT Chair will prepare a follow-up letter (in coordination with the CEOS Secretariat) to the IOC identifying the appropriate CEOS contact for matters relating to the Decade.	Complete Letter sent to Vladimir Ryabinin (IOC/UNESCO) 22Jun21
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Issues requiring discussion/decision during current CEOS SEC teleconference (Dot points)

- **COP-26**
 - Still currently planned as an in-person meeting 1-12 November 2021 in Glasgow, UK.
 - Subsidiary bodies of UNFCCC had their meetings in June, so the hope is that more news will emerge shortly.
 - The UK Space Agency (UKSA) report that the UK call for proposals for the green and blue zones have been evaluated and some proposals have been invited for further discussion.
 - There has been no news so far of any UKSA green zone stand proposals being taken forward.
 - There is no indication at the moment to suggest that the blue zone and main COP-26 meetings would not be in person.

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)

- **GEO Symposium (21-24 June)**
 - 682 attendees from across 83 different countries.
 - 4 Plenary sessions, 33 Parallel sessions and many Spotlight sessions.
 - CEOS involvement in many of the sessions, including a dedicated parallel session run by the COAST AHT and a ODC Sandbox demo run by the SEO.
- **Working Group meetings**

- WGCV-49 (29 June – 2 July).
- **Virtual Constellation meetings**
 - At the invitation of the SIT chair, attended the catch-up meetings with the Virtual Constellation co-leads for OCR-VC, OSVW-VC, P-VC and OST-VC.
 - Attended the LSI-VC-10 and AC-VC-7 meetings.
- **CEOS Internal**
 - Working with the SEO, SIT chair team and WGCapD on website improvements and to improve social media outreach.
 - Working with Kerry and others on historical record maintenance to improve corporate memory.

Upcoming meetings or events

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

Attachments

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

- Updated CEOS calendar of meetings / events attached to the SEC agenda. If any key meetings or events are missing from the calendar please contact Marie-Claire.

CEOS SEC Report

(two pages max.)

Entity: WGDisasters

Prepared By: David Green (NASA), Pierric Ferrier (CNES)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- N/A

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- N/A

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)

- Engagement with the private sector is increasing across WGDisasters activities. Volcano Demonstrator Co-Leads have been meeting with ICEYE leadership in recent months to explore data sharing agreements that would improve persistent volcanology monitoring globally with intent to improve risk reduction capabilities. Wildfire Pilot Co-Leads, in the context of their objective to conduct a detailed inventory and gap analysis of existing and proposed EO systems suitable for global active-fire monitoring consider this effort incomplete without broad inclusion of commercial platforms and data streams. Additional, similar examples across the WG exist. WGDisasters leadership is considering if a WG-wide strategy on private sector engagement would be beneficial.
- WGDisasters' observer status with International Charter is currently being refined internally. Almost all WGDisasters activities have expressed interest in receiving Charter data when relevant to ongoing activities and designated areas of interest. Two WGDisasters activities (Seismic Demonstrator and Geohazards Lab) intend to provision value added data to the Charter on a best-effort basis.
- Recovery Observatory Demonstrator activated for Eta/Iota Hurricanes recovery at the request of the World Bank in March 2021. The activation is ongoing and coordinated through CEPREDENAC, as a regional institution with the mandate and capacity to support recovery planning and monitoring. The Eta/Iota RO aims to complete existing damage assessments by providing details on damage in remote areas and status of recovery efforts, identify new risk created by Eta/Iota and assess capacity for use of EO for recovery in the region.

Upcoming meetings or events

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

- IGARSS 2021
 - New Observing Strategies for Natural Hazards Session, 15 July. Dave Borges presenting “CEOS WGDIsasters Flood Pilot: Improving EO Flood Monitoring Capabilities through Data Fusion”
 - Geoinformation for Hazards Monitoring, Disaster Risk Reduction and Emergency Response, 16 July. Francesca Cigna presenting “Monitoring Natural and Anthropogenic Geohazards with SAR Big Data: Successful Experiences using the Geohazards Exploitation Platform”

- WGDIsasters-16, 21 – 23 September, 11:00 – 14:00 UTC

CEOS SEC Report

(two pages max.)

Entity: WGClimate

Prepared By: Albrecht von Bargaen (DLR), Jeff Privette (NOAA)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- CDR Use Cases: Additional Use Cases have been received (17 total; thanks!). Three (3) Use Cases have been laid out in webpages and are under final review. Are working with all submitters to ensure associated CDRs are in Inventory.

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)

- Updating the Space Agency Statement for COP in cooperation with the CEOS Chair; Will complete by August, then seek CEOS and CGMS approval.
- WGClimate Chair accepted an UNOOSA invitation to attend the United Nations/Austria World Space Forum on 'Space 4 Climate Action' (December). UNOOSA is a CEOS Associate Member and will participate in future WGClimate meetings.
- GHG Task Team follow-up meeting to June 4th meeting is still in planning stage.
- The AFOLU Workshop, postponed from Varese in 2020, will be held in the (northern hemisphere) fall time 2021 (no updates)

Upcoming meetings or events

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

- 2nd Climate Observation Conference, organised by GCOS & WCRP with support of EUMETSAT, moved to 2022

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: WGISS (Working Group on Information System and Services)

Prepared By: Robert Woodcock – Chair (CSIRO)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- N/A

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- N/A

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)

- CEOS Earth Analytics Interoperability Laboratory – The EAIL now has a range of data available to support the WG Disasters, DEMIX and CEOS COAST groups. These include the Public Cloud ESA and USGS archives for EO and DEM data. Additional data collections will be added in coming months (MODIS, VIIRS). Some data requests (e.g. ICESat2) may not be achievable without additional technical support given the nature of the data, supply chain and available EAIL expertise.. The requested Canadian RCM data has a conditional EULA which is being negotiated and the EAIL is being updated to support the necessary access control mechanisms to allow use of this data if the agreement can be reached. CSIRO Chile has also updated a range of Jupyter Notebooks on EAIL demonstrating the use of the data and systems.
- Work has commenced on actions resulting from WGISS-52 notably defining common names for STAC, ARD and other terms (in collaboration with LSI-VC). [Jupyter Notebooks Webinar](#) July 21-22 July (>250 registrations). Persistent Identifier BP analysis of replica of Data in the Cloud approaches (for integrity and authenticity) in preparation.

Upcoming meetings or events

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

- WGISS-52 19th-21 October 2021 - Virtual
- WGISS-53 – Joint WGCV (tentative) Week starting 21st March 2022 – Tokyo+Virtual

Attachments

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

Examples of EAIL Datasets available – Copernicus DEM 30m (left) and NASA DEM Global 1 arc second. (right)



copernicus_dem_30
on 31st December 2015

Last processed 1 month ago
3,654 datasets
23,823,606m² (approx.)
No configured regions
Entirely EPSG:4326

ISO fields
creation_time -
dataset_maturity -
format -
instrument -
label -
lat -
lon -
platform -
product_family -
region_code -
time -

Measurements
elevation
[View metadata](#)



ipdaac_nasadem
whole collection

Last processed 2 years ago
1,059 datasets
10,004,759km² (approx.)
No configured regions
Entirely EPSG:4326

ISO fields
creation_time -
dataset_maturity -
format -
instrument -
label -
lat -
lon -
platform -
product_family -
region_code -
time -

Measurements
elevation
[View metadata](#)

CEOS SEC Report

(two pages max.)

Entity: WGCapD

Prepared By: Nancy Searby (Chair/NASA) & Pham Thy (Vice Chair/VNSC)

Updates on issues raised during the last CEOS SEC teleconference

(Dot points)

- WGCapD is still seeking candidates for the Vice Chair position.

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)

- WGCapD members are working on executing the 2021-2023 work plan that includes 33 deliverables (27 to be implemented in 2021 calendar year, 5 – in 2022, 1 – in 2023).
- Disaster Risk Management MOOC deliverable CB-21-07 is now closed. Information on this free course is available at ISRO-IIRS [website](#). Registration closes on August 15, 2021.
- Branded Webinar Toolkit (CB-21-01) deliverable is now closed. Updated toolkit materials are now available on WGCapD's [Resources page](#) on CEOS website.
- The Earth Observation Training, Education, and Capacity Development Network (EOTEC DevNet) held its first set of regional exchanges on June 14. During the exchanges, over 90 participants contributed to the start-up of four regional Communities of Practice and helped develop a new tracking tool on flood-related capacity building opportunities. The floods tracker, an example of the types of resources EOTEC DevNet plans to produce, captures existing EO flood tools, related capacity building and training opportunities, and outstanding gaps and needs. The deliverable CB-20-05 is now closed.
- EOTEC DevNet meetings also resulted in the identification of the group's next focus area, drought, which will be discussed at the next round of regional exchanges, scheduled for September 21, 2021. Additionally, the leadership team is working to finalize an operational concept document and organizing the sustained communities of practice through biweekly meetings leading up to the first EOTEC DevNet Leadership meeting, which will take place on September 10, 2021.
- The Jupyter Notebook Webinar, a joint deliverable CB-20-04 with WGISS, is taking place on July 21-22, 2021. Organizers are using WGCapD's branded webinar toolkit materials. Over 200 participants already registered. Information and registration links available on CEOS [website](#).

Upcoming meetings or events

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

- WGCapD Monthly Meeting on August 5, 2021
- WGCapD work planning meeting on September 6-8, 2021
- EOTEC DevNet Leadership meeting will take place on September 10, 2021
- The next round of EOTEC DevNet regional meetings is planned for September 21, 2021

CEOS SEC Report

(two pages max.)

Entity: WGCV

Prepared By: Akihiko Kuze (JAXA) Philippe Goryl (ESA)

Issues requiring discussion/decision during current CEOS SEC teleconference

(Dot points)

- WGCV-49: June 29-July 2 (virtual)

Actions:

To update the CARD4L peer review process agreed at WGCV-49 and send to the LSI-VC Leads.

To schedule a follow up teleconference on the potential WGCV recommendation of the TSIS HSRS solar spectra.

To consider nominations for the WGCV Vice Chair (October 2022 to October 2024).

Upcoming meetings or events

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

- WGCV-50: March 21-24, 2022, (T.B.D) (Tokyo, Japan)(Hybrid) proposing joint meeting with WGISS

CEOS SEC-281 Report – July 2021

Entity: SEO

Prepared By: Brian Killough (NASA)

Issues requiring discussion/decision during CEOS SEC teleconference

- None

Updates on issues raised during the last CEOS SEC teleconference

- None

Upcoming meetings or events

- The SEO will participate virtually in the **IGARSS 2021 Conference** on July 12-16. A session on "CEOS and the Private Sector: Interactions and early progress on Analysis Ready Data" is planned for July 16 and co-chaired by Andreia Siqueira (GA) and Brian Killough (SEO, NASA). The session includes 5 papers with these lead authors: Adam Lewis (GA), Chris Barnes (USGS), Fang Yuan (GA), Brian Killough (SEO, NASA), and George Dyke (Symbios).
- **Digital Earth Americas** - The 2nd of three workshops is planned for July 29. These workshops, sponsored by CSIRO-Chile and the Australian Government, will identify the EO needs and challenges of the region and will advance the use of satellite data and Open Data Cube technologies. The workshops involve key regional stakeholders (e.g. UNGGIM, AmeriGEO, INEGI, CEPAL) and country-level Government agencies and are consistent with the 2020 Aguascalientes Declaration objective to improve collaboration and the use of EO in the region. This 2nd workshop will focus on the diversity of data cube solutions available to users ranging from simple to complex cloud-based platforms. This workshop will be slightly more technical than the previous workshop and will be suited to managers, geospatial data experts, earth observing specialists and others who have an interest in understanding several of the options that are available in the data cube arena and how to decide on the right tool for the job.

Other highlights, activities, actions, projects, collaborations

- The SEO presented a demonstration of the **Open Data Cube Sandbox** at the **GEO Symposium** on June 24. There were plenty of positive feedback. The SEO team is now working with GEO to provide content to include this tool in the GEO Knowledge Hub. A meeting was held with the GEO team on July 1 to discuss details.
- **CEOS Communications** - A group of CEOS representatives (CEO, SEO, Symbios, WGCapD) have been meeting to discuss updates to the CEOS website and overall communications topics. Future revisions to the website are planned to enhance content for increased impact and to include more reports and examples of CEOS products. These revisions will also include adding the CEOS newsletter in electronic format.

Update on the CEOS Newsletter No.57

2021.07.15. JAXA

1. Update on the CEOS Newsletter No.57

- Articles (Contributors) have been received
- Report from SIT Chair Team (SIT Chair Team /CSIRO/GA)
- Update on Plan of 2021 CEOS Chair (NASA)
- Update on the GEO-LDN Initiative (GEOSEC)
- The Value to CEOS of a Three-Year Work Plan (CEO)
- Report of WGCapD
- Report of WGClimate
- Update on Biomass Protocol (WGCV-LPV)
- Report of AC-VC
- Report of LSI-VC-10
- CEOS Study for GST (ESA/SIT Vice chair)

- Article (waiting)
- Update on WGISS

- Schedule
- Collecting articles: finished
- Editing & Printing : July 2021
- Publication : August, 2021

2. Consideration and discussion of future CEOS Newsletter

The CEOS Newsletter can be upgraded by using up-to-date IT tools and social network services. We would like to upgrade the CEOS Newsletter to disseminate useful information to the public broadly. If the revision finishes sometime in this year, JAXA will be able to transfer the current newsletter to new system from early 2022.

We have started to communicate with SEO/CEO and got a positive feedback from them. We will continue to discuss the future plan.