**Minutes V1.0**

**253rd CEOS SECRETARIAT MEETING**

Thursday 29 August 2019

Chaired by VAST-VNSC

**Participants**

**CEO:** Steven Hosford

**COM:**  –

**ESA:** Ivan Petiteville

**EUMETSAT:** Robert Husband, Paul Counet

**GEO SEC:** –

**ISRO:** –

**JAXA:** Yukio Haruyama

**NASA:** Christine Bognar, David Borges

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

**SIT Vice Chair Team:** Andreia Siqueira

**SEO:** Brian Killough

**VAST-VNSC:** Pham Anh Tuan (Chair), Linh Phan, Lam Dao Nguyen, Matthew Steventon, Stephen Ward

**WGCapD:** Prakash Chauhan

**WGClimate:** Jörg Schulz

**WGCV:**  Akihiko Kuze

**WGDisasters:** –

**WGISS:** –

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

Pham Anh Tuan (VAST-VNSC, CEOS Chair) welcomed everyone to CEOS SEC-253.

1. **Action Status**

Pham Anh Tuan (VAST-VNSC, CEOS Chair) noted that most open actions will be covered during the course of the meeting, but he called for any additional updates now. None were raised.

1. **2019 CEOS Plenary Update**

Linh Phan (VAST-VNSC, CEOS Chair Team) reported:

* 70 people are currently registered for CEOS Plenary.
* VAST-VNSC is no longer able to apply for immigration numbers on behalf of participants but can still provide assistance to those applying themselves.
* The hotel block booking deadline has been extended until September 13. Linh requested that everyone book as soon as possible.
* A logistics document/handbook will be sent out next week.

1. **CEO Report**

Steven Hosford (ESA/CNES, CEO) reported:

* There has been no progress with regard to the identification of nominees for the roles of CEOS Executive Officer (CEO) and CEOS Deputy Executive Officer (DCEO).
* **Upgrade of ceos-deliverables.org Deliverables Database and Web Interface:** Some changes have been made according to feedback received. Having missed the scheduled launch date of August 1, it has been challenging to maintain constant progress on the development over the month. Significant delays have therefore been experienced in rolling out the operational version of the updated interface. A further teleconference is scheduled before August 30 to determine the final updates and establish a launch target date. Despite these delays the operational version of the updated interface should be available with sufficient time for CEOS deliverable leads to update their tasks well before the September 30 cut-off for Plenary reporting. An email will be sent to all to announce the availability of the updated interface.
* **CEOS Mailing List Update:** The update of the CEOS mailing lists uncovered some implementation issues regarding default behaviour of the new software and some missing email addresses. There will be a full review of the current lists to ensure consistency with the pre-migration lists. A group of four list administrators (AMA software support, Matthew Steventon, Kim Holloway, CEO) has been established and will operate under the authority of the CEO.
* **Ongoing CEOS Representation in GEO:** CEOS representation on the GEO Programme Board (PB) expires at GEO Plenary in early November. The GEO Secretariat sent a call for nominations on August 28, including the possibility for current PB members whose term ends in 2019 to re-nominate representatives for a new term. If CEOS wishes to re-nominate it must return the PB nomination form by Friday September 27. Before doing this, CEOS needs to identify who might represent CEOS on the PB.
  + Steven noted the email sent today by Jonathon Ross (GA, SIT Vice Chair Team), which stated on behalf of the SIT Vice Chairs, Alex Held and Adam Lewis:
    - *As SIT Chair 2020-2021 we, if CEOS SEC confirms that CEOS should renominate for the PB, agree to sit on the PB on behalf of CEOS for the next two years (our term as SIT Chair).*
    - *Subject to the above, we would, if CEOS SEC wishes, nominate for an ExCom seat for CEOS and sit in ExCom on behalf of CEOS should CEOS be successful.*
  + CEOS needs to discuss and decide the desired course of action.
* **GEO Ministerial Declaration:** The latest version of the GEO Ministerial Declaration was circulated by the GEO Secretariat at the end of July. It was transferred by the CEO to CEOS Principals with instructions to communicate any comments they might have on this declaration through their national GEO channels.

1. **SIT Chair Report**

Steve Volz (NOAA, SIT Chair) reported:

* **2019 SIT Technical Workshop:** The final agenda was shared with all on August 27, along with the current registration list and a few logistical notes. The VC/WG/AHT Working Day final agenda was also shared with all who expressed interest in attending. Significant discussions are planned on the outcomes from the Working Group and Ocean Virtual Constellation Merger Study Teams.
* **Working Group Study Team (WGST) and Ocean Virtual Constellation Merger Study Team (OVCMST) Status**: Assessment reports were shared with all and are now available on the SIT Technical Workshop website. All SIT Technical Workshop attendees should come prepared to discuss and conclude how to move forward for CEOS Plenary. Steve thanked all study team participants for their efforts.
* **AHT Initiation Cycle & VC Leadership Rotation:** Draft language was shared with CEOS SEC, VCs, WGs, and AHTs on August 7. The SST-VC has provided comments (minor change). The draft text will be discussed during the SIT Technical Workshop and the VC/WG/AHT Working Day. All SIT Technical Workshop attendees are requested to familiarise themselves with the proposed language so we can discuss and come to agreement on what to send forward for decision at CEOS Plenary.
* **Ongoing CEOS Representation in GEO:** Steve suggested CEOS should re-apply to be on the GEO Programme Board, however ExCom participation is less clear. Steve noted with appreciation the SIT Vice Chair’s proposal sent today via email by Jonathon Ross. The Sec agreed to discuss the topic at its next meeting at the SIT Technical Workshop.
* **Reports from the Virtual Constellations**: CNES has identified a new Co-Lead for the OST-VC – Ms. Annick Sylvestre-Baron. NASA has identified a new Co-Lead for the SST-VC – Dr. Edward Armstrong (JPL). Pending the approval of the SST-VC, Ed Armstrong will take on Co-Lead duties from Ken Casey in October.

Steven Hosford (ESA/CNES, CEO) asked if there will be time set aside at SIT Technical Workshop for a discussion on ongoing CEOS representation in GEO. Kerry Sawyer (NOAA, SIT Chair Team) noted this can be covered under item 7.5. Christine Bognar (NASA) suggested that it would be helpful first to discuss the topic in the CEOS Secretariat meeting. It was agreed that this discussion be covered at the SEC-254 meeting in Fairbanks. Christine suggested CEOS remain involved in the ExCom, noting the significant effort made in the past to allow CEOS to have a high-level role in the strategic side of GEO.

1. **GEO SEC Report**

Doug Cripe (GEO Secretariat) was not on the call. A written report was submitted.

1. **SEO Report**

Brian Killough (NASA, SEO) reported:

* The CEOS exhibition booth for the GEO Plenary has been accepted and paid. Costs were paid by the SEO (4450 AUD/3020 USD). Brian thanked the Australian GEO Week team, as these costs are much lower than other GEO venues in the past. The SEO will reach out to CEOS representatives attending the meeting to support staffing of the booth. In addition, the SEO will seek content from CEOS representatives in the coming months.
* Brian attended the IGARSS conference in Yokohama, Japan, July 29 to August 2. He co-chaired a session on Analysis Ready Data (ARD) with Medhavy Thankappan (GA) and presented a paper: *"The Impact of Analysis Ready Data in the Africa Regional Data Cube"*. Approximately 50 people attended the session.
* **CEOS Action 32-08**: *NASA SEO to confer with the CEOS Chair to establish a small brainstorming group to explore possible CEOS Agency contributions to the Digital Earth Africa initiative.*
  + The SEO is working on this action with GA (Adam Lewis and Trent Kershaw). The primary need is ARD from Landsat, Sentinel and ALOS. Landsat and ALOS have solutions in place. The SEO is working with Steven Hosford (ESA/CNES) and Albrecht Schmidt (ESA) regarding Sentinel ARD solutions to support Digital Earth Africa. This work is ongoing.

1. **Working Group Reports**

**WGDisasters**

Simona Zoffoli (ASI, WGDisasters Chair) was not on the telecon. No written report was submitted.

**WGClimate**

Jörg Schulz (EUMETSAT, WGClimate Chair) reported:

* WGClimate is preparing for their next meeting in Anchorage, which will be co-located with the LSI/SDCG/GEOGLAM meeting and include a joint session to cover various topics such as gap analyses, biomass observations and coordinated climate actions. Participation at the WGClimate meeting will be low due to distance, cost, and timing.
* Work continues on the ECV Inventory and gap analysis. WGClimate has encountered issues finding enough support and commitment but is pushing through. Jörg thanked NOAA, NASA, and ESA staff for their support. The gap analysis report will likely be presented for virtual endorsement before the end of the year, rather than at CEOS Plenary as first proposed.
* The GHG Roadmap Task Team continues to progress well. Albrecht von Bargen (DLR, WGClimate Vice Chair) is leading the work on scheduling and planning.
* WGClimate’s CEOS SEC actions on outreach and website updates are still outstanding. Jörg reported these will not be progressed until November at the earliest.

**WGISS**

WGISS was not represented on the call. Mirko Albani (ESA, WGISS Chair) sent his apologies in advance. A written report was submitted.

**WGCapD**

Prakash Chauhan (ISRO, WGCapD Chair) noted the following points from the written report:

* Nancy Searby (NASA, WGCapD Vice Chair) contributed to training sessions during AMERIGEO Week 2019 (Lima, Peru, August 19-23). The sessions covered training and capacity building support on the topic of SAR for vegetation studies and ecosystem monitoring (reference: CEOS Work Plan Deliverable CB-35).
* A CEOS Future Data Architectures webinar is now scheduled for September 6 and has been arranged through a WGCapD and WGISS collaboration.
* A regional science meeting followed by training was held in Johar Bahru, Malaysia, July 22-24, with the participation of NASA, ISRO, JAXA, and VNSC. This is part of WGCapD CEOS Work Plan Deliverable CB-32.

**WGCV**

Akihiko Kuze (JAXA, WGCV Vice Chair) reported:

* The location, time, and host for WGCV-46 has now been confirmed. The meeting will be held March 23-27, 2020, at Caltech in Pasadena, CA, USA, hosted by NASA. The location, time, and host for WGCV-47 has also been confirmed. It will be a joint meeting with WGISS and will be hosted by ROSCOSMOS, September 14-18, 2020, in Sochi, Russia.
* The joint letter initiating the pre-flight calibration workshop has now been signed by Mitch Goldberg (NOAA, GSICS Chair). The workshop is now on schedule for the second quarter of 2020.
* The second ACIX2/CMIX workshop will be held at ESA ESRIN around September 2019. The purpose is the evaluation of the comparison results.

1. **AOB**

**CEOS Chair Rotation / 2021-2022 CEOS Chairs**

To promote leadership diversity, CEOS makes every effort to rotate the Chair responsibility amongst major geographic regions (the Americas, Europe/Africa, Asia/Pacific). The most recent CEOS Chairs and their regions are noted below:

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** |
| **EUR-AFR** | **ASIA-OCE** | **ASIA-OCE** | **AMERI** | **EUR-AFR** | **ASIA-OCE** | **ASIA-OCE** | **–** | **–** |
| EUMETSAT | JAXA | CSIRO | USGS | COM | VAST-VNSC | ISRO | – | – |

CEOS SEC was asked to discuss options for the 2021 and 2022 CEOS Chair – keeping in mind the geographic rotation and most recent CEOS Chairs:

* Kerry Sawyer (NOAA, SIT Chair Team) noted that 2020 should have been the Americas turn, however no agency could take on the role and ISRO had already expressed interest.
* Ivan Petiteville (ESA) suggested that based on the geographic rotation, the 2021 CEOS Chair should now ideally be an agency from the Americas. He recalled that UKSA has expressed interest in chairing in 2022/2023. He also recalled that according to the CEOS Chair terms, it is the responsibility of the CEOS Chair to identify the future CEOS Chairs even if CEOS SEC representatives from the relevant geographical area might help.
* Kerry noted that SEC-254 has been extended by half an hour to accommodate discussions on CEO/DCEO continuity and CEOS Chair 2021-2022.
* It was agreed to defer further discussion to SEC-254.

**2019 CEOS Chair Initiative Update**

Lam Dao Nguyen (VAST-VNSC) reported:

*Forest Monitoring for the Mekong*

* Algorithms:
  + Developed by VNSC: using a combination of SAR (Sentinel-1) and optical (Landsat and Sentinel-2) data.
  + Developed by CESBIO: using time series of Sentinel-1 data.
* *In situ* data: 2018 and 2019 data of the central highlands, Vietnam.
* Validation: In progress. VNSC will create forest monitoring products for Vietnam and use *in situ* data for validation. Using the validated model of Vietnam, forest maps will be created for other countries in the Mekong region. Validation will be supported by CESBIO/CNES staff in September.
* Also testing with ALOS-2 data for the four countries (three years, up to 2017).
* A forest change map on the Vietnam Data Cube will be prepared to display at CEOS Plenary to demonstrate the results of the collaboration. There should be two presentations: a forest change map developed solely by VNSC and one developed by CESBIO and VNSC.

*Rice Monitoring for the Mekong*

* An algorithm developed by VNSC for the Mekong Delta and Red River Delta has been validated using *in situ* data. CNES/CESBIO analysed the Sentinel-1 backscatter time series for different rice ecosystems and tested the ESA GEORICE rice mapping algorithms in four countries. JAXA analysed the ALOS-2 backscatter time series with JAXA’s rice crop monitoring tool named INAHOR NEO (machine learning version) and generated a prototype rice crop map for the 2018 rainy season using available ground observation data and statistical information for the four countries, in cooperation with in-country organisations.
* VNSC will use the *in situ* data for the Red River Delta and Mekong Delta regions to validate rice maps provided by CNES/CESBIO and JAXA.
* Rice maps on the Vietnam Data Cube will be prepared for display at CEOS Plenary.

Brian Killough (NASA, SEO) asked if algorithms can be shared for use outside Vietnam. They would be very valuable for other Data Cube instances. He would like to discuss this further at SIT Technical Workshop or CEOS Plenary.

1. **Next Meeting and Adjourn**

Pham Anh Tuan (VAST-VNSC, CEOS Chair) thanked everyone for attending, noted that CEOS SEC-254 will be held on September 10 at SIT Technical Workshop, and the meeting was adjourned.