

Minutes V1.0
212th CEOS SECRETARIAT MEETING

Thursday 12th May 2016

Chaired by CSIRO

Participants

CEO Team:	Jonathon Ross, Marie-Josée Bourassa
CSIRO:	Alex Held (Chair), Flora Kerblat, Stephen Ward, George Dyke
ESA SIT Chair:	Stephen Briggs
EUMETSAT:	Robert Husband
GEO:	Osamu Ochiai
JAXA:	Chu Ishida, Shizu Yabe, Naoko Matsuo, Yukio Haruyama, Koji Akiyama, Yoshinori Yoshimura
NASA:	Christine Bognar
NOAA:	Kerry Sawyer, Satya Kalluri
SEO:	Brian Killough
USGS:	Frank Kelly, Steve Labahn, Tom Cecere
WGCapD:	Jane Olwoch
WGClimate:	Pascal Lecomte, Jörg Schulz
WGCV:	Kurtis Thome
WGDisasters:	Stéphane Chalifoux
WGISS:	Andy Mitchell

1. Welcome and Introductions

Alex Held (Chair) welcomed participants to the meeting and noted that the collection of written reports received ahead of the teleconference are attached in Appendix A and present a thorough review of the status and activities of the CEOS entities present at CEOS SEC-212.

2. Review of Agenda

Alex asked for comments on the agenda, and no additional items were raised.

3. Review of Actions

Alex briefly reviewed the action items, with most to be covered during the course of the meeting.

209-06 is closed as Paul Di Giacomo has been included as the CEOS Secretariat Oceans/Blue Planet expert.

210-03 Christine Bognar noted that Eric Lindstrom (on the COVERAGE mission team) hadn't yet received an invitation to the SIT Technical Workshop, and Jonathon Ross agreed to follow-up.

210-08 can be closed with the circulation of the draft report from the GEOGLAM Advisory Committee meeting in the margins of GEO Plenary.

210-10 can be closed as Alex has sent a copy of the letter sent in relation to the 2018 CEOS Chair position.

211-02 can be closed as the calendar has been updated and there will be no change to the format.

Plenary action 29-3 Chu Ishida noted that nominations for leadership of the extended Water Strategy Implementation Study Team remain open.

Plenary action 29-7 Alex noted that this item can be closed out with the endorsement of NOAA as the SIT Vice Chair during the Plenary session at SIT-31.

4. Working Group Reports

WGDisasters

Stéphane Chalifoux reported that WGDisasters has confirmed leadership support through to end-2017. He noted that the Disaster Risk Management pilots (floods, volcanoes and seismic risks), and activities related to the Supersites are progressing well with regular provision of satellite data. He noted that invitations have been sent to participate at CEOS WGDisasters Meeting #6 (Vancouver, USA, 6th-8th September 2016), with the registration deadline on 5th August.

Stéphane noted that a side event will be held at the 2016 Understanding Risk (UR) Forum in Venice, Italy called: 'Satellite data for enhanced risk management and reduction - innovative technologies and future applications'.

WGClimate

Pascal Lecomte reported that WGClimate is on track to issue a new ECV inventory questionnaire in the near future through the new WGClimate website, and this is currently the main priority of the group. The European Climate Coordination Meeting will be held on 18th May at EUMETSAT, and will perform a readiness review for the release of the questionnaire, start the population, and finalise the review of the WGClimate web pages.

WGISS

Andy Mitchell referred to the written submission, highlighting that last week he initiated discussions with WMO representatives on metadata standards. Andy has submitted a paper on



WGISS interoperability standards to CGMS, and will attempt to present remotely on that topic. He also noted that he attended the GCI Workshop last week in Geneva, and there were positive discussions.

Andy noted that some of the discussions in the FDA ad hoc team may help with the ARD definition, and he will share with Brian and others.

WGCapD

Jane Olwoch reported that the WGCapD Work Plan 2016-2017 has been approved, and includes projects on webinar development, capacity building on geospatial technologies and their application to governance, data cubes, the GEOCAB Portal, and connections to GEO capacity building tasks.

Alex noted that there will be an AmeriGEOSS meeting in late June, and suggested CEOS should consider participating.

212-01	Kerry Sawyer to share the June AmeriGEOSS Workshop agenda with CEOS SEC.	20 May 2016
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WGCV

Kurtis Thome reported, highlighting the recent CEOS WGCV Plenary (14th-18th March) in Canberra. He directed SEC participants to the written report for more details, noting that the meeting was hosted by CSIRO in cooperation with Geoscience Australia, with one day being joint with WGISS.

5. CEO Report

CEOS Work Plan

Jonathon reported that with the CEOS Work Plan 2016-2018 published, the CEO Team is updating the ceos-deliverables.org website. The CEO team did an analysis of the Work Plan, and compared it with the previous 3-Year Work Plan, noting that the biggest portion of deliverables are targeted for Plenary 2016. He noted that most of the deliverables are due in the next 12 months, and this may indicate a need for more considered long-term planning by CEOS Entities if CEOS is to gain maximum benefit from a rolling 3-Year Work Plan. They also looked at the number of deliverables by area, noting that there were some significant changes which should be monitored over the coming years.

CEOS Membership

In reference to the UAE membership discussions (SEC action 209-02), the CEO team has been attempting to contact MBRSC, and have been unsuccessful. At this stage it is not clear that they intend to proceed with a membership application.

The CEO team has been in contact with KMA, and have had recent communications with the membership discussion continuing.

The EU Satellite Centre has reconfirmed their desire to apply for CEOS membership, and are expected to follow-up regarding their attendance at the 2016 CEOS Plenary.

COPUOS

CEOS has been invited to attend the COPUOS meeting, however no representative has been identified. Stephen Briggs expressed concern about UNOOSA/COPUOS's overlapping mandate and ambitions, and suggested that CEOS needn't be proactive.

Report from the GEO Programme Board #2 Meeting

Stephen Briggs, as Head of the CEOS delegation to the Programme Board, reported on the meeting of the Board in Geneva the previous week. He noted that there is frustration around the establishment of the Programme Board, including around basic procedural matters.

He reported that there were some notable gaps in the nominations for GEO Flagship initiatives (e.g. GFOI), as well as some that have been put forward without submitting nominations (e.g. GEO Carbon). This has resulted in an extension of the deadline for submission.

There is a follow-up meeting planned for 7th – 8th September to finalise the GEO Work Programme before GEO Plenary, and CEOS needs to support this activity to ensure successful delivery.

The GD-08 side meeting convened by the US with the aim of progressing the SBA requirements definition went quite well, and it was noted that there may be opportunities for CEOS to provide immediate support on the urbanisation, and the agriculture and food SBAs.

Report from the GEO Work Plan Symposium

Jonathon summarised the Symposium as being rather low-energy and without much inspiration for the new decade of GEO. Monitoring and evaluation will need future attention and this is a topic of interest to CEOS. The targets and indicators that CEOS suggested ended up in the Strategic Plan but much remains to be concluded on implementation. Kerry Sawyer reported that the breakout session she attended didn't have very strong participation. Stephen noted attendee comments that the event was heavy on process, with few significant outcomes.

Alex noted that there may be an opportunity for CEOS to influence the energy and focus of the discussions around the next decade of GEO, and use this influence to include a focus on CEOS priorities.

Alex asked about SEC action 210-05 on the introduction to CEOS presentation, and Jonathon noted that it has been updated. He also noted that a more general presentation is being worked on, and will be shared over the coming months. Alex noted that he will refer to these materials when he presents on behalf of CEOS at the upcoming CGMS Plenary.

6. GEO SEC Report

Osamu Ochiai reported that the 2017 GEO Plenary will take place in Washington, D.C. the week of 23rd October 2017 (the week after CEOS Plenary 2017, hosted by USGS).

Osamu noted efforts by GEO member countries (USA, Japan) to include a GEO/GEOSS reference in communique from the upcoming G7 Science Ministers meeting, possibly in the open science or oceans sections, with the communique to be finalised 15th May.

7. SIT Chair Report

Stephen Briggs welcomed NOAA’s confirmation as SIT Vice-Chair for 2016-2017, and subsequently SIT Chair for 2018-2019.

He reported on SIT-31, noting there was an objective to focus SIT-31 discussions on more strategic issues, which he hopes was welcomed. The draft SIT-31 Minutes and Actions are being reviewed by the SIT Chair Team, and will be circulated in the coming days for review.

The latest version of the Delhi Declaration has been seen and is unchanged since review by CEOS (without reflecting CEOS comments). Stephen has followed this up with CNES.

Stephen reported that the SIT Chair Team participated in the GEO Work Programme Symposium and in the 2nd GEO Programme Board meeting.

The 2nd round of teleconferences between the SIT Chair and the VC / WG Leads and Chairs will mostly take place during the 1st half of July, and VCs and WGs will be invited in the coming days to indicate their preferred dates.

SIT Technical Workshop:

Stephen noted that the booking deadline for the CEOS block booking at St. Anne’s College, Oxford, is Thursday 30th June, with more information available here: <http://ceos.org/2016-sit-technical-workshop-accomodation/>. He noted that in the coming days, a request for side meetings will be circulated with responses due by the end of May.

212-02	SIT Chair Team to circulate request for SIT Technical Workshop side meetings, with responses due in two weeks.	Announcement: Monday 16 May Deadline: Monday 30 May
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8. Systems Engineering Office (SEO) Report

Brian Killough reported that the SEO is hosting a Data Cube workshop on 7th-8th June, focused on developing a QGIS interface module. A QGIS expert from Boston University (Dr. Chris



Holden) will be attending, as will George Dyke (GFOI team) and Alyssa Whitcraft (GEOGLAM team).

Following a visit by the SEO on 13th April, the World Bank offered to host a Data Cube Workshop on 12th-13th July in College Park, MD. The meeting will be focused on educating the World Bank team on the Data Cube architecture, getting feedback from the Colombian and Kenyan teams, and developing plans for a new country demonstration in 2017. The World Bank has a particular interest in water management.

A briefing to the SERVIR hub leaders was completed on 20th April (via GoToMeeting from SIT-31). There was significant interest from several SERVIR hub teams, with a particular interest from the African (Kenya) and Mekong (Thailand) hubs. These teams use ArcGIS for many of their applications, so the SEO will investigate Data Cube connections to this GIS tool. Plans for Data Cube deployment to the SERVIR hubs is still under planning.

9. Brief Status Updates of Ad Hoc Initiatives

SDCG/GFOI

Stephen Ward reported that the GFOI topics at SIT-31 went as planned, including flagging of the planned end of Australian GFOI funding, and that the R&D acquisition strategy (Element 3) document was endorsed by SIT.

SDCG-10 will be hosted by UKSA/NCEO at Reading University, UK on 7th-9th September, and all GFOI-supporting CEOS agencies are encouraged to attend. The day prior to SDCG-10, a briefing to the UK government (with representatives from Norway and Germany) will be held in London.

Stephen noted that the GFOI REDDcompass (including the MGD) was launched, featuring a new web-based application to help countries develop national forest monitoring systems (NFMS) and associated greenhouse gas emission measurement, reporting and verification (MRV) procedures: <http://www.gfoi.org/REDDcompass>. He asked that CEOS agencies share this with their national climate and forest monitoring authorities.

212-03	SEC members to share the newly released REDDcompass with their national climate and forest monitoring authorities.	SEC-213
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The successful launch of Sentinel-1B was welcomed, and it was noted that this will help greatly with global SAR coverage of forests.

Stephen Briggs reported that a European GEO Work Plan Symposium will be held in two weeks, and will include a special two-hour session on GFOI R&D. The session will look at the next calls for the Horizon 2020 Work Plan, and to build support for a substantial R&D program for GFOI at a possible scale of 2M EUR/year.

CEOS Ad Hoc Working Group on GEOGLAM



George Dyke noted the completion of SEC action 210-08, with the circulation of the draft November 2015 GEOGLAM Advisory Committee report. The GEOGLAM SIT-31 side meetings were very productive, covering a broad range of topics, including issues in relation to Sentinel-1 and Sentinel-2 for agriculture, the evolution of GEOGLAM space data requirements and their communication to space agency representatives, linking GEOGLAM capacity development activities with CEOS WGCapD, the GEOGLAM Advisory Committee, Crop Monitor, Asia-RiCE, GEOGLAM RAPP, data dissemination/access solutions, and JECAM.

There is a draft action coming out of SIT-31 for CEOS agencies to, “...*co-operate with an anticipated GEOGLAM Secretariat request for identification and confirmation of Points of Contact in relation to data acquisition planning & data access requests for GEOGLAM*”. This is being done in an effort to ensure the correct communications channels are in place. SEC agencies can expect contact from GEOGLAM SEC.

During the SIT-31 side meetings, the ad hoc Working Group agreed they would like to try and hold a side meeting at both the SIT Technical Workshop and CEOS Plenary if possible.

A new GEOGLAM website has been released at www.geoglam.org.

Alex took the opportunity to remind SEC that a call for Plenary side meetings would be circulated shortly.

212-04	CEOS Chair Team to circulate a request for CEOS Plenary side meetings	SEC-213
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Water Strategy Implementation Study Team

Chu noted that the WSIST has been quite active with regular teleconferences to discuss the feasibility study approach based upon six high-priority parameters. It has been agreed to start by studying synergies between precipitation and soil moisture observations. Chu noted the feedback from SIT-31, and the need to take GD-08 discussions into account, in particular those related to agriculture and food security. Chu invited input from the major agencies contributing to water observations.

Christine noted that Dr. Kevin Turpie of NASA/GSFC is supporting the work of Arnold Dekker in relation to water quality, and that NASA anticipates making additional contributions. Arnold will hold a meeting at the ESA Living Planet Symposium on this topic.

Future Data Access & Analysis Architectures (FDA) Ad Hoc Team

Tom Cecere reported good feedback from the FDA side meeting held at SIT-31, noting that there around 30 participants. Discussions covered a number of key topics, including Analysis Ready Data (ARD). There has been active participation from a number of groups (e.g. SEO, WGCapD, WGCV, WGISS, LSI-VC).

The FDA ad hoc team co-leads are working on plans to prepare a first draft report, with team review as the next step. He noted that the FDA schedule will be similar to the draft schedule the NMA team provided to SEC, with the SIT Technical Workshop as a key milestone to discuss and revise the recommendations that are to be brought to CEOS Plenary.

212-05	FDA and NMA Ad-hoc Teams asked to keep CEOS and SIT Chairs updated on their proposed report recommendations and to ensure that these are shared ahead of the SIT Technical Workshop	Update at SEC-213
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Non-meteorological Applications (NMA) for Next Generation Geostationary Satellites Ad Hoc Team

Satya Kalluri presented a summary of the timeline for report completion (see attached written report) and noted that that the group remains on track to meet this timeline.

Alex asked about early conclusions from the NMA study that he could/should present at CGMS Plenary, and Satya agreed to provide some suggestions.

212-06	Satya Kalluri to provide Alex Held with some suggested early conclusions / statements that could be be drawn from the NMA ad hoc team study for presentation at CGMS Plenary	27 May 2016
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10. AOB

2018 CEOS Chair Position

Alex reported that there are no further updates at this stage on the prospect of the EC taking on the 2018 CEOS Chair position.

CEOS Information Systems Survey

George noted that the CEOS Database and SEO teams would like to take the opportunity in the next couple of months to open up a user survey of CEOS information systems, including the CEOS Database, COVE, and the Data Policy Portal.

The survey will be administered online (i.e. via the likes of Survey Monkey), and will be open to all community members and users of these resources. It will be circulated as widely as possible via the CEOS mailing lists, CEOS agency contacts for the CEOS Database survey, as well as linked from the websites of these resources.

The main objectives are to seek feedback from users on the current offerings, suggestions for future enhancements, and linkages to other community resources (e.g. OSCAR, the IDN, CWIC, ECV Inventory). A summary of preliminary responses will be presented at the SIT Technical Workshop.

11. Next Meeting and Adjourn

Alex noted that CEOS SEC-213 will take place Thursday 16th June.

A. 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 Chair (SIT Chair)
- CEOS Systems Engineering Office (SEO)
- Space Data Coordination Group for the Global Forest Observations Initiative (SDCG)
- 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)

CEOS SEC 212 WRITTEN REPORTS – May 2016 COMBINED ALL

CEOS SEC 212 Report – May 2016

**Please note: verbal reporting should only focus on issues requiring discussion/decision by
CEOS SEC.**

Entity: WGDisasters

Prepared By: S. Chalifoux (CSA)

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 (for reference only)

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

- Pilots (floods, volcanoes and seismic risks) including the activities related to the Supersites are progressing well with regular provision of satellite data.
- Landslide Pilot Working Group meeting held on April 20th in Vienna, Austria. 4 co-leads for this activity but are seeking 1-2 more to better represent the Asian countries.
- Flood Pilot teleconference held on April 28.
- Chair of the GEO Disaster Resilience Breakout Group at GEO Work Programme Symposium 2016 on May 3 in Geneva, Switzerland. Presentations on GEO-DARMA and GSNL.
- GSNL: Greek Supersite proposal in evaluation by Data Coordination Team (DCT).
- Invitation sent to participate at CEOS WGDisasters Meeting # 6 (Vancouver (USA), 6-8 September 2016): Logistics and Registration. End date to register is August 5th.

Upcoming meetings or events (for reference only)

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

- Side event at the 2016 Understanding Risk (UR) Forum – Venice, Italy called: ‘Satellite data for enhanced risk management and reduction - innovative technologies and future applications’
- Session at Living Planet Symposium 2016 – Prague, called: “Science Access to Commercial EO Data 1”
- WGDisasters Meeting # 6: 6 to 8 September 2016, at CVO (Cascades Volcano Observatory, Vancouver, WA ,USA) - hosted by USGS

Attachments

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

CEOS SEC 212 Report – May 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: WGClimate

Prepared By: Pascal Lecomte (ESA) – Jörg Schulz (EUMETSAT)

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

None

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

Preparation for the release of the new questionnaire is continuing nominally. A new web interface containing the questionnaire and an associated database to support the data call for new entries has been finalised.

WG Climate members were tasked with the identification of Focal Points and Responders to the questionnaire within each agency. Some delay in identifying the responders has been observed.

Team building for the gap analysis has been continued and some external experts could be added to support the gap analysis.

The release of the WG Climate web page is slightly delayed because we want to be certain to release it with all information being double-checked.

Other highlights, activities, actions, projects, collaborations (for reference only)

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

Progress in WGClimate was presented to and discussed by the 5th WCRP Data Advisory Council held, 7-8 April at NOAA-NCEI in Asheville, USA. There is a high interest in early visibility of the updated inventory in particular by climate services such as the C3S and the WCRP core projects GEWEX, CLIVAR, CliC and SPARC.

Results of the WGClimate meeting were also conveyed to the 21st GCOS AOPC by the GCOS space rapporteur (deputised by the WGClimate Vice Chair). GCOS AOPC is grateful for the support of the WGClimate and hopes for more support in the review of the quantitative requirements of the satellite supplement.

Upcoming meetings or events (for reference only)

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

European Climate Coordination Meeting (WG Chair, Vice Chair and support team) will be held on 18 May at EUMETSAT to perform readiness review for the release of the ECV Inventory questionnaire to start the population and to finalise the review of the WGClimate web pages.

WGClimate Chair to participate in the Research Dialogue (RD 8) at SBSTA 44 on Thursday 19 May, 15.00-18.00

WGClimate Chair will also participate to the next GCOS IP writing team meeting at JRC (Ispra) on 24-26 May.

Attachments

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

CEOS SEC 212 Report – May 2016

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

Prepared By: Andrew Mitchell – Chair (NASA) / Mirko Albani Vice Chair (ESA)

Updates on issues raised during the last CEOS SEC teleconference

- None

Issues requiring discussion/decision during current CEOS SEC teleconference

- None

Other highlights, activities, actions, projects, collaborations (for reference only)
(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- *March 14th to 18th the **WGISS-41 and WGCV-40 meetings** were jointly held in Canberra, Australia. Discussions centered around ways in which CEOS might help ensure a cohesive life-cycle for satellite Earth observation data, from its proper calibration and validation to its discovery, access, and analysis.*
- WGISS (Andy Mitchell) participated in the **GEOSS Clearinghouse Infrastructure (GCI) Workshop** on May 5th and 6th. As a GCI provider for CEOS data, Andy presented WGISS activities related to CWIC, FedEO and the IDN. Andy also presented the CEOS Future Data Architecture (FDA) and Analysis Ready Data (ARD) initiatives.
 - WGISS is assisting the GCI team develop a ‘Conceptual Architecture’ of the GCI and its evolution.
- A working paper was submitted to **CGMS-44** subgroup IV (Global Data Dissemination) that promotes the use of CEOS WGISS Interoperability services and standards. This paper is in response to a CGMS action item to propose using interoperability standards for providing and sharing of climate data records.

- **WGISS Water Portal Project** has successfully completed. The operation of the portal was transferred to Tokyo University on April 1st. The URL of the Water portal was moved to <http://waterportal.diasjp.net/>.
- WGISS is supporting the **2016 CEOS Missions, Instruments and Measurements Database** in updating pages with links to agencies data access portals for the mission data.

Upcoming meetings or events (for reference only)

- WGISS 42nd meeting - September 19th to the 23rd – Frascati, IT
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Attachments

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

CEOS SEC 212 Report – May 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: WGCapD

Prepared By: Jane Olwoch (SANSA) and Senthil Kumar (ISRO)

Updates on issues raised during the last CEOS SEC teleconference

None

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

None

Other highlights, activities, actions, projects, collaborations (for reference only)

New projects and opportunities

WGCapD Annual meeting -5 was very successful. Summary of the meeting decisions is below:

- **WGCapD Work plan 2016-17** approved but in future to ensure that it is prepared well in advance to allow wide discussions timely submission in future according to CEOS timetable. Three year work Plan version 4 is available, members need to be proactive in finalising documents.
- **Decisions on projects**
- **Webinars:** We will continue with the on-line training programs ---Program for distance education courses need to be discussed further by a focused group of people (ISRO-Senthil).
- **Capacity Building Activity on Geospatial Technologies** and their Applications in G-Governance should be piloted with another partner outside of India, unfortunately, it couldnt be adopted the anual meeting. Senthil and Jane will work on a plan/document that shows how other partners will be involved.



- **Data cubes**---All members agreed that the data cube initiative offers good opportunities and should be the focus going. Proposal from SEO for the WGCapD - WGCapD will develop a CB plan for the Data cube initiative whereby WGCapD identifies regional representatives that could receive training on the implementation of the data cube architecture, train those individuals and support the planning and implementation of the workshops that utilize data cube technologies for regional applications. - Targeted for 2017.
- **GEOCAB, Portal:** Nancy will ask WGCapD members to update their inputs to GEOCAB, after coordinating with the GEOCAB team to ensure we collect the right information for the update (NASA-Nancy).
- **Connections with GEO:** We noted WGCapD representative on GEO Capacity Building Tasks: CEOS User needs in capacity building will be communicated to WGCapD through CEOS CEO and GEO CB Task Team members of WGCapD (GEO-Andiswa).
- **Existence of numerous Capacity Building** in ESA, DLR, NASA, ISRO: DLR and ESA will collate materials that can be used in WGCapD for its activities (DLR; ESA).
- **The Capacity Building summit:** a very special edition and from KIM's survey we have a draft report of CEOs capacity building activities, and how they do them. The discussion further revealed some best practices in Capacity building.. full report to be presented at CEOS Plenary.
- **The SAR training workshops:** were preliminary scheduled for the 3rd quarter and the 4th quarter in Gabon and Zambia respectively. But it was decided that the final dates will be scheduled after a conference call with the teams from the AFRISAR project (ESA, NASA, DLR,) and allocation of trainers.

End of the report

CEOS SEC 212 Report – May 2016
(two pages max.)

Entity: WGCV

Prepared By: Albrecht von Bargaen (DLR) / Kurtis Thome (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

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

- CEOS WGCV plenary September 5-7, 2016
Preparations in coordination with JAXA are ongoing
- CEOS WGCV Land Product Validation sub-group meeting during
Living Planet Symposium (May 2016)
- CEOS WGCV MW sub-group meeting, the week before IGARSS 2016, Beijing
- CEOS WGCV IVOS sub-group meeting, the week after IGARSS2016, Beijing
- CEOS WGCV SAR sub-group meeting, September 7-9, 2016, Tokyo

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)

- Agenda for WGCV plenary is now consolidated with emphasis to topical sessions

CEOS WGCV HELD ITS PLENARY MARCH 14-18, 2016, IN CANBERRA. THE MEETING WAS HOSTED BY CSIRO IN COOPERATION WITH GEOSCIENCE AUSTRALIA. ONE DAY WAS DEDICATED TO A JOINED PLENARY SESSION TOGETHER WITH CEOS WGISS. THE MEETING WAS ORGANIZED SO THAT MEMBERS AND SUB-GROUPS DID REPORT ABOUT THEIR ACTUAL ACTIVITIES AND ACHIEVEMENTS REGARDING CAL/VAL. IN ADDITION SEVERAL TOPICAL SESSIONS WERE ARRANGED REGARDING ATMOSPHERIC AND LAND SURFACE REMOTE SENSING, THE INTERACTION WITH OTHER CEOS ENTITIES, THE STATUS OF CARBON ACTION ITEMS, THE CHAIR'S INITIATIVES, AND THE INTERACTION WITH EXTERNAL BODIES.

DURING ALL SESSIONS FROM DIFFERENT TOPICS AND STANDPOINTS GENERAL ASPECTS OF CALIBRATION AND VALIDATION HAD BEEN ADDRESSED. THOSE INCLUDE THE IMPLEMENTATION OF PROTOCOLS OR REPORTING ABOUT EXISTING PROTOCOLS WHICH ARE ALSO USED IN DIFFERENT NETWORKS AND COMMUNITIES; THE SET-UP OF METRICS WITH THE PERSPECTIVE OF A FUTURE GENERAL APPROACH. A SPECIAL ATTENTION WAS SET TO THE CARBON ACTION ITEMS OR HOW TO WORK WITH ON A MOST EFFICIENT WAY. A DETAILED APPROACH BASED ON A THOROUGH ANALYSIS HAD BEEN AGREED. THIS INCLUDES THAT EACH PARTICULAR ACTION ITEM WILL BE DETAILED INTO SEVERAL TASKS OR

SUB-TASKS WHICH CAN BE THEN IDENTIFIED TO A TASK TEAM OR SUBGROUP. THE MOST EFFICIENT BASE TO CARRY OUT THOSE SUBTASK IN A MORE GENERAL APPROACH INDEPENDENT WHICH WILL BE THEN ALSO BENEFIT FOR OTHER CEOS ACTIVITIES. IT MUST BE POINTED OUT THAT SEVERAL SUB-TASKS MAY BE HANDLED BY DIFFERENT TEAMS IN CLOSE COORDINATION, ESPECIALLY IF A GENERAL DEFINITION OR SET-UP FOR CAL/VAL IS TOUCHED WHICH SHALL BE VALID FOR ALL SCIENCE COMMUNITIES. CEOS WGCV LIKES TO PUT A LOT OF EMPHASIS TO THE THOROUGH DEFINITION OF SUCH TASKS IN ORDER TO BUILD UP AN EFFECTIVE COORDINATION EFFORT DURING THE LATER STAGE. CEOS WGCV HAD THE PLEASURE TO BE INFORMED BY THE LSI VC LEAD ABOUT THEIR ACTIVITIES WHICH WAS BROADLY DISCUSSED. THE INTRODUCTION TO THE CHAIR'S INITIATIVES ALLOWED THE WG ALSO TO BE KEPT INFORMED ABOUT INITIATIVES OUTSIDE THE WG IN ORDER TO BE PREPARED FOR EVENTUALLY FUTURE WORK ASPECTS.

ONE HIGHLIGHT WAS THE JOINED MEETING TOGETHER WITH WGISS WHICH ALLOWED THE ALIGNMENT OF COMMON PLANS. IT WAS AGREED TO CLOSELY COOPERATE WITH RESPECT TO THE CARBON ACTION ITEMS, TO SUPPORT WGISS WITH THE DEFINITION OF METADATA FORMAT IN TERMS OF QUALITY METRICS.

FINALLY, THE WGCV DISCUSSED INTENSIVELY THE DRAFT OF A NEW RELEASE OF THE TORs WHICH INCLUDES NOW THE TODAY'S SITUATION STEMMING FROM SOME INTERNAL WORKING REVISIONS AND ALSO FROM THE FACT THAT THE WORK SHALL BE ALSO MIRRORED IN THE CEOS WORK PLAN. IN ADDITION, A BRIEF OUTLINE OF AN INTERNAL WORK PLAN HAD BEEN PROPOSED AND IS UNDER IMPLEMENTATION. THE TORs WILL NOW UNDERGO AN ITERATION CYCLE FOR FINAL CONSOLIDATION AND CONFIRMATION BY THE WG. AFTERWARDS IT WILL BE PRESENTED TO CEOS PLENARY FOR APPROVAL.

IT IS WORTH TO NOTE THAT THE PLENARY MEETING DID INTENSIVELY DISCUSS ALSO THE ISSUES RELATED TO THE WGCV DELIVERABLES IN THE FRAME OF THE CEOS WORK PLAN. WE LIKE TO UNDERLINE THAT ONE LONG-TERM ACTIVITY WHICH IS DEDICATED TO THE IMPLEMENTATION OF A DEDICATED REFERENCE SITE NETWORK INCLUDING A STANDARDIZED PROCESSING ON HAND QUALITY GUIDELINES (RADCALNET), IS NOW IN THE BETA TESTING PHASE.

Attachments

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

CEOS SEC 212 Report – May 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: CEO Team

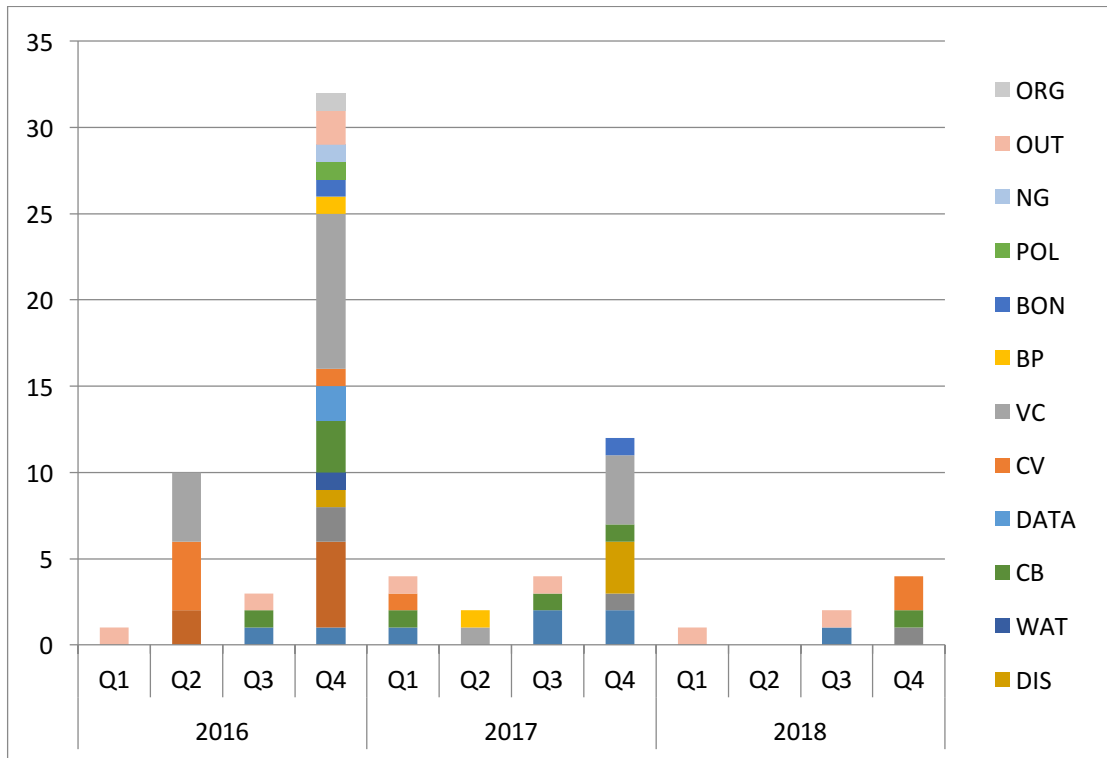
Prepared By: Jonathon Ross (GA), Marie-Josée Bourassa (CSA)

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

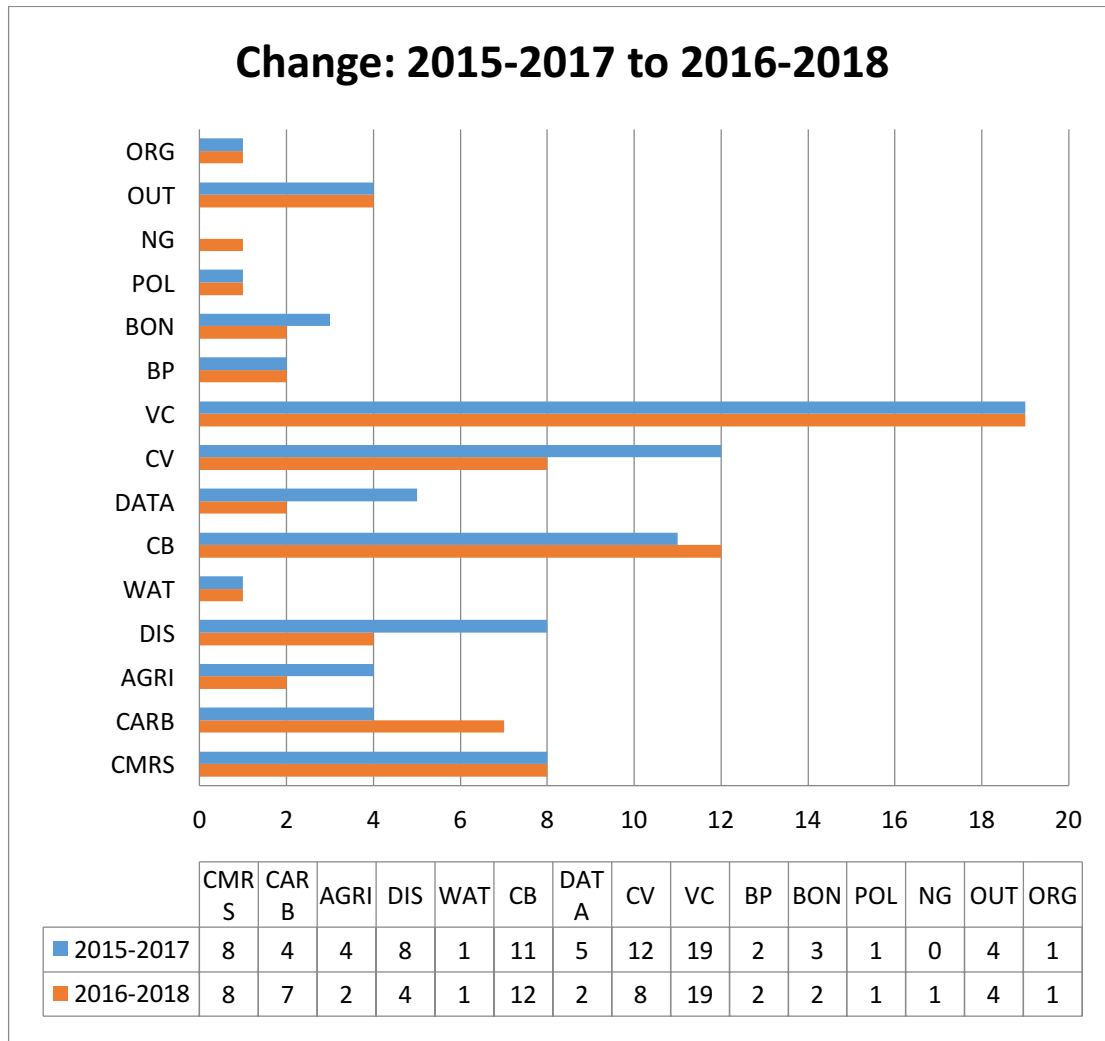
- In reference to 209-02, subsequent attempts to contact MBRSC have been unsuccessful. At this stage it is not clear that they intend to proceed with a membership application.
- In reference to 210-05, this has been completed, see below for details.
- In reference to 211-02, the calendar has been updated and the current format retained.

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

- **CEOS Work Plan** [Report by CEO]
 - The CEOS Work Plan 2016-2018 is now published on the CEOS website. Thank you to all for their contributions and advice.
 - The SEO Team is updating the ceos-deliverables.org website with new details. A call for status updates will be issued to CEOS Entities once this is complete, in a manner that is complementary to the next round of SIT Chair Team 'Tag Ups'.
 - The following charts provide some insight into changes from the 2015-2017 Work Plan and the 2016-2018 Work Plan.
 - **Due dates for milestones, organised by topic.** Unsurprisingly the majority are scheduled for delivery by the next Plenary. The lack of concrete milestones in the out years indicates a need for more considered long-term planning by CEOS Entities if CEOS is to gain maximum benefit from a rolling 3-year work plan.



- **Change in number of objectives/deliverables by category.** The primary category where there has been a major drop is DATA. This may be as a result of WGISS waiting for strategic guidance from the CEOS Chair Initiative and other activities, having made major progress over the last years on the issue of metadata access. There has been a drop-off in activities within disasters, following the success at the WCDRR in Sendai and the focus shifting to implementation. The increase in CB activities should be monitored closely in line with the new strategy being developed by WGCapD.



– **GEO Work Programme Symposium**

- CEOS was represented by a strong delegation including Professor Stephen Briggs (SIT Chair), Jonathon Ross (CEO), Marie-Josée Bourassa (DCEO), Ivan Petiteville (SIT Chair Team), Kerry Sawyer (NOAA), Andy Mitchell (WGISS Chair) and Richard Eckmann (NASA).
- Participant numbers were noted as being down from previous years.
- The CEOS team chaired and participated in a break-out session on the disaster risk reduction SBA (Sawyer).
- The CEO participated in a panel discussion on GEOSS development. The need for the GEOSS to evolve to make data ‘actionable’ not just discoverable was a key theme of this panel session.
- GEOSEC is developing proposed new branding guidelines. These guidelines do not, as yet, indicate when use of GEO logo (or variants therefore) is not allowed. Clarity on this topic will be important in ensuring the ‘value’ of the logo and the CEO has

volunteered to participate in a GEO Programme Board sub-group looking at related topics.

- It is clear that significant further work is required on the monitoring and evaluation framework, particular before the first major evaluation is due in a few years. Attendees noted that a layer was missing from SEC presentations which implied that ‘evaluation’ of GEO could be undertaken every year, through aggregation of indicators and work programme performance. It was felt this would miss evaluating the more strategic measures of success.
 - The structure of the meeting was different to previous work plan symposia. This resulted in some confusion, which was exacerbated by potentially insufficient preparation (e.g. breakout session chairs were unclear what type of report/briefing was required until minutes before the report-back session).
 - The general sense of the symposium was that GEO participants have not yet made the mental transition into the next decade of GEO, with a feeling that attempts were being made to ‘map’ the old world into the new world, rather than accept that priorities had changed. The atmosphere was subdued. However, the meeting was a useful opportunity to reinforce the key priorities for the next ten years, which will hopefully start to sink in with the broader community.
 - In accordance with actions from the 2016 CEOS-GEO coordination meeting, the CEO and WGISS Chair had a side meeting with WMO (and GEOSEC) to discuss coordination between WMO’s WIGOS initiative and relevant CEOS activities. A fruitful collaboration on metadata to describe space data was identified, and will be followed up by WGISS Chair with WMO. WMO also expressed strong interest in the CEOS Data Cube. Further discussions on integration between the CEOS COVE and MIM databases and the recently enhanced WMO OSCAR system would be desirable.
 - The SIT Chair and CEO participated in a side-meeting to discuss the GD-8 user needs process. The SIT Chair provided concrete suggestions for an approach (relatively small groups of 10-12 balanced across suppliers, intermediaries, users and topic experts) to identify the critical observation requirements, as a key input to GD-05 (Space) and GD-06 (in-situ). This proposal was well supported.
 - The CEO attended (as a representative of Australia) a meeting of the Asia-Oceania Caucus which is exploring an Asia-Oceania GEOSS regional initiative. It is early days, however there is a need to monitor the initiative as some presentations implied a duplication of existing structures and efforts (e.g. CEOS, GEOSS-AP Symposium). The presenter (China) emphasised that the aim was to link existing activities, not to create unnecessary new ones.
 - The DCEO attended a meeting on AmeriGEOSS. This initiative is evolving with more work required to clarify its future direction.
- **Sustainable Development Goals**
- Discussions progressed on the implementation of the GEO initiative 18 on SDGs. The DCEO attending the session and related side-meeting.

- There was a lot of reference to SDGs by presenters in the main agenda, showing the momentum is developing on the ‘push side’. It is, as yet, unclear how strong the ‘pull’ is for EO-enabled solutions within the key UN agencies (Statistics Division aside). A number of presentations emphasised the need for GEO to maintain its focus on other key priorities (including economic impact) as well as the SDG agenda.
- There are still no formal tasks defined but GI-18’s objectives are being prioritized and scoped out. It is now time to submit ideas and commit resources.
 - Projects. Major activities include method development and examples of EO uses. It was noted that Kenya and Columbia Data Cube could be leveraged and presented as a GI-18 task.
 - Capacity Building. Major activities include trainings and a handbook on EO for SDG. The potential to leverage WGCapD activities was discussed.
 - Data and Information. Major activity includes a SDG toolbox. CEOS should consider what part of our work could be included in a toolbox?
 - Outreach. Major activities include an awards program, events, articles, and handouts.
- **Programme Board Meeting #2**
 - CEOS was Program represented by a strong delegation, including primary representative Stephen Briggs (SIT Chair), alternates Jonathon Ross (CEO) and Ivan Petiteville (SIT Chair Team) and observer Kerry Sawyer (SIT Vice-Chair Team). Photo below shows the happy current and former CEOs in their role supporting the PB (including Marie-Josée out of politeness, as she was representing Canada in the PB).



- The alternate arrangement worked well, with both alternates able to cover during absences, ensuring full-time CEOS representation. This contrasted with many other delegations (noting some exceptions) where a sole representative was present. When the representative left, the delegation was not represented. Ivan Petiteville was particularly pleased when his turn at the front table came up.



- Participation was relatively poor. Of the 41 Members/POs accepted to the Programme Board, only around 55-60% were present at the start. By the end of the meeting, the PB could not maintain a quorum (with only 40% of Members/POs represented) so had to defer certain discussions. One co-chair did not attend, leaving the EEA and USA representatives to shoulder the burden.
- Significant improvements are required in meeting preparation for subsequent meetings. For example, a key focus of the meeting was to chart the course for development of the three-year 2017-2019 work programme. Attendees were not, however, presented with a concrete and well thought-out proposed process to stimulate discussion. Moreover, current activity proposals (which were due for submission weeks before the meeting) were not available for consideration before or, indeed during, the meeting. There was no concrete discussion on the core of the work programme at all – the Community Activities, Initiative and possible Flagships.
- This lack of progress is a high-risk to the development of a high-quality 3-year work programme for GEO, which was a major shift in the second decade of GEO. There is only one more face-to-face PB meeting before the full programme is recommended for Plenary endorsement. To date, the group has not had a chance to review

concrete proposals as a group. The proposed process is predicated on isolated proposal review. The timeframe to review and consolidate proposals out-of-session will be challenging.

- Protocols for PB meetings was a major topic of the meeting, with members noting that the Rules of Procedure are general in nature and leave much to the discretion of the group. In particular, there was a difference of opinion between co-chairs on whether a more inclusive approach (many voices but one vote, consistent with the inclusive culture of GEO) was more suitable than a more formal approach (as in UN meetings). No conclusion was reached, and a sub-group has been formed to bring back recommendations on this and other matters of protocol. CEOS will participate in this group.
- Priorities and structure of foundational tasks was a significant topic of discussion. There is still confusion amongst members between two difference issues: prioritising use of secretariat resources as a result of a lack of contribution to the trust fund vs structuring activities to maximise delivery.
 - A key outcome was a recognition by all present (this point also came out in the Symposium) that the foundational tasks include major contributions from the community; they are not just 'GEOSEC' tasks, and 'prioritising' many offers no benefits (or negative benefits to relationships) as all contributions come from Membes/POs.
 - It was noted that over 60% of GEOSEC resources are being expended on basic secretariat operations, with most of this 'ringfenced' from discussion by consensus.
 - There is still no clarity on what the priorities for GEOSEC contributions should be for the remainder of available GEOSEC resources. The group agreed on the importance of not micro-managing the GEOSEC, and also that there is more potential for Members/POs to step up in areas like outreach and resource mobilization and communications and outreach, at a general level and within the frame of specific Initiatives. Further work is proposed through an extended sub-group, in which CEOS will participate.
 - A proposal to re-merge foundational space observation coordination with in-situ observation coordination is being promoted by COSPAR. The CEOS delegation has communicated the challenges with this, including its inconsistency with the agreed need to ensure there is clear attention given to improving in-situ coordination. The CEOS delegation has also noted that the work programme is not another 'conceptual framework' for describing the GEOSS, but should represent concrete activities with a manageable group of contributors and realistic scope.
- The importance of the GD-08 requirements process is being increasingly recognised. The SIT Chair has provided concrete suggestions to the GEOSEC on how to put this process into action, in a pragmatic way, immediately. There still remains confusion

in many circles about the scope of GD-09 (knowledge base) and its relation to GD-08 (observation needs). GD-09 appears to be a low priority based on the general feeling in the meetings.

- The DCEO chaired a session on monitoring and evaluation. As noted above, this is a topic which requires significant work, including to establish protocols for baselining the indicators (which were those proposed by CEOS during the development of the Strategic Plan). CEOS will continue to be involved in a sub-group on this topic, with an increased emphasis on how to establish measures for the success of Initiatives and Flagships, and how to structure reporting.
- CEOS representative (WGISS Chair) also presented at a GCI Workshop held in parallel, and will report separately.

Other highlights, activities, actions, projects, collaborations (for reference only)

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

- **Introduction to CEOS Presentation.** A new version is available in the DMS reflecting NOAA as SIT Vice-Chair. Please use this version. The SEO Team, CEO Team and SIT Chair Team (Petiteville) met in the margins of SIT-31 to discuss development of a new presentation focussed on those unfamiliar with satellite Earth observation. A number of options (videos, animations, etc) were discussed and the group will continue its work.
- **Members.** In addition to above update on MBRSC:
 - EU SatCen have confirmed their continued desire to apply. They have agreed to provide a formal indication in relation to the Brisbane Plenary in the next few months.
 - KMA have approached CEOS re membership, and the appropriate information has been provided by DCEO who is managing communication.

Upcoming meetings or events (for reference only)

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

- **ATTENTION IS DRAWN TO THE FORTHCOMING COPUOUS MEETING. CEOS IS INVITED TO PARTICIPATE IN THE FIFTY-NINTH SESSION OF THE COPUOUS IN VIENNA, AUSTRIA, FROM 8 TO 17 JUNE 2016. THE AGENDA IS NOT YET AVAILABLE. OUR PARTICIPATION COULD SUPPORT THE CEOS SIT CHAIR PRIORITY AROUND ENGAGEMENT WITH THE UNITED NATIONS AGENCIES. AT THIS STAGE, NO REPRESENTATIVE HAS BEEN IDENTIFIED.**

Attachments

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

CEOS SEC 212 Report – February 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: SIT Chair Team

Prepared By: Ivan Petiteville (ESA)

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

- All issues raised during the teleconference SEC-210 have been solved
- At the time of the SIT-31 meeting, the CEO, SEO and the SIT Chair team have agreed on the follow-on actions to be undertaken in order to progress on the ‘Introduction to CEOS’ presentation.
- Several actions (currently 14 in the draft list) have been raised during the SIT-31 meeting. The list will be circulated in the coming days to CEOS together with draft SIT-31 minutes.

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

- None

Other highlights, activities, actions, projects, collaborations (for reference only)
(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- The draft SIT-31 Minutes and List of Actions are being reviewed by the SIT Chair team. In the coming days, both will be circulated to CEOS for comments.
- The SIT Chair team participated in the GEO Work Programme Symposium and in the 2nd GEO Programme Board.
- The **2nd round of teleconferences between the SIT Chair and the VCs / WGs Leads and Chairs** will mostly take place during the 1st half of July. VCs and WGs will be invited in the coming days to indicate their preferred dates.
- **SIT Technical Workshop:**
 - The booking deadline for the CEOS block booking at St. Anne’s College, Oxford is Thursday 30th June.
 - In the coming days, CEOS will be surveyed regarding the organisation of side-meetings.

Upcoming meetings or events (for reference only)

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

- 2nd round of teleconferences between the SIT Chair and the VCs / WGs Leads and Chairs
Point 2

Attachments

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

CEOS SEC 212 Report – May 2016

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 is hosting a Data Cube workshop on **June 7-8** in Hampton, Virginia to develop a QGIS interface module. Dr. Chris Holden from Boston University will be attending as an expert developer for QGIS. This open source Geographical Information System (GIS) tool is broadly used by the community, so a connection to the Data Cube will be a valuable addition. George Dyke (GFOI team) and Alyssa Whitcraft (GEOGLAM team) are also attending.
- Following a visit by the SEO on April 13, the World Bank offered to host a Data Cube Workshop on **July 12-13** in College Park, MD. The meeting will be focused on educating the World Bank team on the Data Cube architecture, getting feedback from the Colombia and Kenya teams, and developing plans for a new country demonstration in 2017. World Bank has a particular interest in water management.

Other highlights, activities, actions, projects, collaborations

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

- A briefing to the SERVIR hub leaders was completed on **April 20** (via Go-To-Meeting). There was significant interest from several SERVIR hub teams with a particular interest from the Africa (Kenya) and Mekong (Thailand) hubs. These teams use ArcGIS for many of their applications so the SEO will investigate Data Cube connections to this GIS tool. Plans for Data Cube deployment to the SERVIR hubs is still under planning.

CEOS SEC 212 Report – May 2016

Entity: SDCG for GFOI

Prepared By: S. Ward (SDCG SEC)

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

- Report to SIT-31 went as planned. Explained end of Australian GFOI funding. R&D document was endorsed by SIT.

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

- SDCG-10 hosted by UKSA/NCEO at Reading University on 7-9 Sept in UK. All GFOI-supporting CEOS agencies encouraged to attend.
- GFOI briefing for UK Govt agencies on 8 Sept in London.

Other highlights, activities, actions, projects, collaborations (for reference only) (Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- GFOI MGD REDDCompass launched - new web application based on MGD to help countries develop national forest monitoring systems and associated greenhouse gas emissions measurement, reporting and verification (MRV) procedures:
<http://www.gfoi.org/REDDcompass>
- Sentinel-1B launch successful and will help with global forests radar coverage

Upcoming meetings or events (for reference only)

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

- SDCG-10: September 2016, U.K. (7-9 Sep, Reading), with a briefing to UK Govt agencies on GFOI in London on 6th Sep.
-

Attachments

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

More information at <http://ceos.org/sdcg> and www.gfoi.org.

CEOS SEC 212 Report – May 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: CEOS ad hoc Working Group for GEOGLAM

Prepared By: George Dyke (GEOGLAM ad hoc WG SEC)

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

- 210-07: complete.
- 210-08: complete – report circulated.

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

- None.

Other highlights, activities, actions, projects, collaborations (for reference only)
(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Productive side meetings of the GEOGLAM ad hoc WG were held on the Monday before SIT-31, as well as the full Thursday following SIT-31. A broad range of topics were covered, including preparations for the SIT-31 presentation (Monday), issues in relation to Sentinel-1 and Sentinel-2 for agriculture, the evolution of GEOGLAM space data requirements and their communication to space agency representatives, linking GEOGLAM capacity development activities with CEOS WGCapD, the GEOGLAM Advisory Committee, Crop Monitor, Asia-RiCE, GEOGLAM RAPP, data dissemination/access solutions, and JECAM.
- There is a draft action coming out of SIT-31 for CEOS agencies to, “...*co-operate with an anticipated GEOGLAM Secretariat request for identification and confirmation of Points of Contact in relation to data acquisition planning & data access requests for GEOGLAM*”. This is being done in an effort to ensure the correct communications channels are in place.

Upcoming meetings or events (for reference only)
(Dot points, e.g. meetings, conferences of relevance, visits)

- During the SIT-31 side meetings, the ad hoc WG agreed they would like to try and hold a side meeting at both the SIT Technical and CEOS Plenary if possible.

Attachments



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

- A new GEOGLAM website has been released at www.geoglam.org.

CEOS SEC 212 Report – May 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: WSIST (Water Strategy Implementation Study Team)

Prepared By: Chu Ishida (JAXA)

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

- Search for a new leader of the extended WSIST continues

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

- None

**Other highlights, activities, actions, projects, collaborations (for reference only)
(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)**

- The 4th WSIST Water Constellation FS telecon was held on March 29.
 - George Huffman provided information on his planned Decadal Survey mission study with focus on extreme weather which require high temporal sampling.
 - Rick Lawford draft ideas on maximizing synergies within and across observational systems for discussion. Synergies across high priority parameter observations are significant challenge for the FS. It was agreed to start with studying synergies between precipitation observation and soil moisture observations.
 - Current requirements, capabilities and CEOS missions for 6 high priority parameters were briefly discussed.
- SIT31 side meeting on the water constellation FS with participation of the WSIST members was held on April 18. It was very useful with guidance and feedbacks from CEOS members and participants;
 - For requirements, we need to check consistency with GCOS ECV requirements and may need to reflect GEO's new SBA requirement consolidation process. We also need to inform GEO of our FS activities.
 - For experts, we welcome any voluntary experts, such as those of run-off and surface water storage. We also need ground water expert(s).

- For cost-benefit analysis, we may not need to conduct detailed analysis until we identify practical candidate missions. Rather we need strong case to justify the FS.
- For requirement, we need to consider political requirements, such as COP21 and SDGs. In this context, we need to make linkage with the GEMI water observation system initiative for SDGs within UN (FAO and UNEP)
- The FS progress was reported to the SIT 31 and got feedbacks from CEOS Principals;
 - Urgent needs on precipitation observation and studying suites of platforms or instruments was suggested.
 - Importance of coordination of microwave radiometer constellation was also suggested.
 - Concerns as to user needs and impact of GEO user requirement process were expressed.
- GEO Work Plan symposium was held for May 2-4 in Geneva. The Water SBA recognizes the ongoing CEOS WSIST FS. GD-08 user requirements process task will not impact the FS for the time being.
- The FS plan will be revised reflecting above feedbacks and proceed with focus on precipitation-soil moisture synergy case study and overall study on 6 high priority observation status (requirements, capabilities, CEOS missions, issues and recommendations including synergies across them)

(WSIST work plan)

Jan - Mar: Collection of data and information on requirements, existing/future capabilities, relevant CEOS missions

Apr - June : Assessment of observations for the priority parameters

Jul – Sep : Study on synergistic observations and architecture

Oct : Preparation of report

Nov : Report at Plenary

Upcoming meetings or events (for reference only)

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

- [WSIST TELECON#6 \(LATE MAY\)](#)
- [IGWCO CoP ANNUAL MEETING \(JUNE 6-8\) FOLLOWED BY WATER QUALITY MEETING \(JUNE 9-10\)](#)

Attachments

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

None

CEOS SEC 212 Report – May 2016
(two pages max.)

Please note: verbal reporting should only focus on issues requiring discussion/decision by CEOS SEC.

Entity: FDA-AHT

Prepared By: Tom Cecere (FDA-AHo-chair)

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

- Draft Report Update
 - Tom and Rob have been actively involved in participating in CEOS WG and LSI-VC activities (WG CapD, WGCV, WGISS, LSI-VC) along with recent Sentinel-Landsat harmonization discussions (Living Planet Symposium, Prague) assembling information and ideas to be brought forward to the FDA-AHT for consideration. Rob had some relevant discussions with ESA ground segment personnel following SIT-31 related to FDA.
 - Co-leads to assemble the current FDA-AHT input and assemble a first draft report for the FDA-AHT to review
 - ARD for Land Surface Imaging is to be determined by LSI-VC and SEO is concurrently working on a summary paper – highlights from these will be incorporated in the draft report
 - WGISS input has been provided also in close coordination with SEO
 - WGCV will be involved in reviewing the document – still TBD as to the role regarding the calibration of individual ARD sets and whether a recommendation will be made regarding validation of the utilization of multiple ARD sets in a data cube analysis environment.

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

- None

Other highlights, activities, actions, projects, collaborations (for reference only)
(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Productive side meeting at SIT-31 – 30 participants
- Andy Mitchell presented on behalf of FDA-AHT at the GCI Workshop held in Geneva the week of May 2.

Upcoming meetings or events (for reference only)

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

- Doodle poll is out for the next FDA-AHT telecon to occur in early June

Point 2

Attachments

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

CEOS SEC 212 Report – May 2016
(two pages max.)

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

Prepared By: Ian Grant (ABoM), Thomas Schroeder (CSIRO), Satya Kalluri (NOAA), Kenneth Holmlund (EUMETSAT) – Co-Leads

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

- In response to Action 210-09 regarding the NMA side meeting at SIT-31, of the NMA co-leads, Ken Holmlund (EUMETSAT) participated, and Ken chaired the meeting.

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

- The following timeline for completion of the NMA Report is presented at the request of the CEOS Chair:
 - 8 June NMA Workshop at CGMS-44 Plenary
 - 30 June First draft of introduction and retrospective/review sections
 - 31 July First end-to-end draft report (NMA team input only).
 - Circulate draft report to leads of CEOS WGs and VCs
 - 31 August Draft report (with input from CEOS subgroups)
 - 31 August Circulate draft recommendations among CEOS subgroups
 - 12 September NMA Side Meeting at SIT Technical Workshop (Oxford)
 - 30 September Draft recommendations circulated among CEOS agencies
 - 31 October NMA side meeting at CEOS Plenary
 - 1-2 November Report presented to CEOS Plenary

Other highlights, activities, actions, projects, collaborations (for reference only)
(Dot points, e.g. outputs, new products, papers, technical reports, media, pipeline and new projects, interactions, project status changes, new opportunities)

- Presentations to WGCV-40 Plenary and joint WGCV/WGISS Plenary (Canberra, 14-18 March).

- NMA side meetings held at WGCV-40 (Canberra, 14-18 March) and SIT-31 (Frascati, 18 April).
- NMA Report structure refined following SIT-31. Considerations include case studies, GEO SBAs, orbits and measurements complementing GEO imaging, challenges for CEOS, writing contributors.

Upcoming meetings or events (for reference only)

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

- NMA Workshop at CGMS-44 Plenary (Biot, France, 8 June) being organised by Paul Counet (EUMETSAT).
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Attachments

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