**Minutes V1.0**

**219th CEOS SECRETARIAT MEETING**

Thursday 1st December 2016

7AM US East, 1PM Europe, 9PM Tokyo, 11PM Sydney

Chaired by USGS

**Participants**

**CEO:** Jonathon Ross

**CSIRO:** Alex Held

**EC:** Astrid-Christina Koch, Mark Dowell

**ESA/SIT Chair Team:** Ivan Petiteville

**EUMETSAT:** Robert Husband

**GA:** Adam Lewis

**GEO:** Osamu Ochiai

**JAXA:** Chu Ishida, Shizu Yabe, Yukio Haruyama, Koji Akiyama, Yoshinori Yoshimura

**NASA:** Christine Bognar

**USGS:** Frank Kelly, Steve Labahn, Eric Wood, Jenn Lacey, Matthew Steventon

**WGCapD:** Senthil Kumar

**WGCV:**  Kurt Thome

**WGDisasters:** Stéphane Chalifoux, Steven Hosford

**WGISS:** Andrew Mitchell

*The collection of written reports received ahead of the teleconference are attached in Appendix A. They present a thorough overview of the status and activities of the CEOS entities present at CEOS SEC-219.*

1. **Welcome and Introductions**

Frank Kelly (USGS, CEOS Chair) welcomed everyone to CEOS SEC-219. Steve Labahn (USGS) led the roll call and noted that USGS will employ the same reporting structure as past CEOS Chairs, CSIRO and JAXA, while also welcoming participants to report 1-2 highlights in addition to items that require decision/discussion. Steve added that written reports will be due 3 days before each SEC teleconference, allowing for a PDF compilation to be sent the following day. A final update of the PDF will be sent out 1 day before the meeting.

1. **Review of Agenda**

Frank welcomed Stéphane Chalifoux (CSA, WGDisasters Chair) to report as the first order of business, due to Stéphane’s availability.

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

Stéphane reported that he is dialing in from the International Expert Meeting on the Global Partnership on Space Technology Applications for Disaster Risk Reduction (GP-STAR), hosted by UNOOSA (1-2 December 2016 in Bonn) during which WGDisasters will consider whether to join the partnership.

Stéphane noted that GEO-DARMA began in mid-October, starting with its Concept Phase, which has a goal of Identifying hazards that have large regional impacts and transboundary risks that require regional and multi-country involvement.

The Recovery Observatory (RO) Oversight Team is working to trigger the RO for the case of Hurricane Matthew. Triggering the RO at this occasion would potentially achieve many of the RO’s objectives, and WGDisasters is advocating that the triggering process go ahead. The RO triggering requires commitment/agreement from CEOS Principals, and Stéphane invited Steven Hosford (CNES) to say more on the topic.

**Recovery Observatory Triggering**

As highlighted at CEOS Plenary in the WGDisasters report, planning for the triggering of the RO has progressed among the Recovery Observatory Oversight Team (ROOT), which is co-chaired by CNES and the World Bank Global Facility for Disaster Reduction and Recovery (GFDRR).

The ROOT held a teleconference on November 8 where, having considered the available information on the event and the potential involvement of stakeholders and space agencies, a consensus was reached to seek the agreement of CEOS Principals to trigger the RO over Haiti following Hurricane Matthew.

Following this meeting, a “Hurricane Matthew Summary Event Report” was finalized and an “RO Operations Plan” was drafted to provide a first estimate of the resources required to carry out the RO.

Steven offered for discussion, the idea that rather than organize a CEOS Principals teleconference as initially anticipated, an email-based interaction with Principals to allow for virtual endorsement may be more efficient.

Jonathon Ross (GA, CEO) suggested that the RO Oversight Team/WGDisasters evaluate why the process paper was written the way that it is. He supported seeking approval via email, but suggested that a ‘silence equals approval’ approach be avoided, as cognizant approval is necessary to ensure that the required resources are available for a successful RO operation.

The Secretariat agreed that consultation via email is acceptable, as long as the approvals are received actively rather than passively. Frank noted that the Secretariat can work with Principals to ensure their responses are received.

No objections were raised by CEOS SEC and it was agreed to move forward with the following steps:

1. Before December 8, the CEOS Chair will send an email to CEOS Principals setting out the decision on triggering the RO. This email will include the “Hurricane Matthew Summary Event Report” and the ROOT teleconference minutes from November 8.
2. It will be requested that CEOS Principals reply before the 16th of December.
3. Reviewing the responses, the CEOS Chair will determine whether, as stated in the RO triggering Process Paper, at least 3 agencies who collectively represent a critical mass of required data sets (and 1 other stakeholder; World Bank already in agreement) are in agreement to trigger the RO.
4. If the RO is triggered, the CEOS Chair will inform all CEOS agencies by email and invite broad participation.
5. The status of the RO will be shared in subsequent CEOS SEC, SIT, and Plenary meetings as required.

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| 219-01 | *CEOS Chair to send an email to CEOS Principals setting out the decision on triggering the Recovery Observatory and to request that CEOS Principals reply before the 16th of December.**The email should include the “Hurricane Matthew Summary Event Report” and the ROOT teleconference minutes from November 8.* | 8 December 2016 |

1. **Action Status**

Steve Labahn noted that the updated SEC action record was included with the meeting agenda, and the status of actions will not be reviewed during SEC teleconferences unless there is a specific request from one or more SEC members.

1. **CEOS Plenary Decisions and Actions Follow-up**

**UN Sustainable Development Goals (SDGs) *Ad Hoc* Team**

Jonathon Ross (GA, CEO) led a discussion on the decision/action from CEOS Plenary/SEC-218 related to the UN Sustainable Development Goals (SDGs) *Ad Hoc* Team, with the aim of reaching a consensus on the text. He noted the following three points for discussion and clarification:

1. Did Plenary agree that there should be an *ad hoc* team on the SDGs?
2. Did Plenary define what the short-term objectives are for that team?
3. What are the next steps with regard to developing formal terms of reference for the group?

Jonathon noted that Kerry Sawyer (NOAA) correctly stated at SEC-218 that terms of reference are not mandatory for an *ad hoc* team to be established by the CEOS Plenary.

No further feedback was received from the Secretariat and the following, as summarised by Jonathon, was accepted and will be reflected in the official record of decisions from CEOS Plenary:

*CEOS Plenary agreed to the establishment of an ad hoc team, reporting to the SIT Chair, to coordinate and drive CEOS engagement on UN Sustainable Development Goals (SDGs).*

*The CEOS Executive Officer (CEO), CEOS Chair Team, and SIT Chair Team will work together to determine what the focus of the SDG ad hoc team should be.*

*Pending further discussion at CEOS SEC-219, they will develop terms of reference for the ad hoc team, consistent with the focus agreed to by the CEOS Secretariat, and seek membership for the team.*

Jonathon recalled that he has circulated a first version of the statement of objectives/focus document for SEC review, and this will be discussed further under the CEO report (item 7).

**WSIST Water Constellation Feasibility Study Report Endorsement**

Alex Held (CSIRO) opened the topic noting that there has been some uncertainty on whether the CEOS Plenary endorsed the WSIST Water Constellation Feasibility Study Report. He invited CEOS SEC feedback and discussion, with the goal of ascertaining the understanding of SEC member agencies.

Jonathon Ross summarised the status of the decisions related to the WSIST and the Water Constellation Feasibility Study Report. His recollection is that the Plenary acknowledged the completion of the report and the useful information contained therein. However it did not agree to any specific follow up with regard to the actions/recommendations in the report.

Ivan Petiteville (ESA, SIT Chair Team) noted that the report was written in response to requirements that are partially obsolete, given the restructuring of the GEO water tasks, and added that ESA is not able to act on the recommendations/actions, as the required follow up is not feasible at this point in time. ESA shares the view that the report and the WSIST’s effort was acknowledged at the Plenary, while the next steps will be discussed at SIT-32 in light of further developments within GEO.

Alex Held, Astrid-Christina Koch (EC) and Christine Bognar (NASA) supported the points of Jonathon and Ivan. Christine noted the precedent of the *CEOS Strategy for Carbon Observations from Space*, which was released in 2013 with approximately one month for review by CEOS and the communities of practice. Following substantive feedback indicating that some recommendations were not actionable “as written,” it was further refined. The *CEOS Strategy for Carbon Observations from Space* had been slated for endorsement at the 2013 CEOS Plenary, but the key feedback received resulted in endorsement months later at SIT-29 (Toulouse). Referring to the earlier comments by ESA and EC, she added that “endorsement” would indicate acceptance by CEOS Agencies of the findings and recommendations of the report, which is different from acknowledging that the report was completed and will be examined taking into account ongoing developments in GEO on a Water strategy, including GEOGLOWS.

Chu Ishida (JAXA) thanked everyone for their feedback and support, and recognized the effort of all WSIST members. He supported the decisions/way forward agreed by SEC, as summarised below:

*CEOS Plenary acknowledged completion of the Water Strategy Implementation Study Team (WSIST) Water Constellation Feasibility Study Report (response to action C.1 from the CEOS Strategy for Water Observations from Space).*

*CEOS Plenary did not extend the mandate of the WSIST, but noted that the CEOS feasibility study on the use of imaging spectrometers for water quality in response to action C.10 from the CEOS Strategy for Water Observations from Space is ongoing and will be completed by Arnold Dekker (CSIRO), reporting to the SIT Chair, for presentation at CEOS SIT-32.*

*CEOS agreed to reconsider its approach to water observation requirements at CEOS SIT-32, in the context of developments within GEO (AquaWatch, GEOGLOWS, etc.).*

1. **GEO-XIII Plenary Report**

Frank Kelly thanked Jonathon Ross for preparing the report from GEO-XIII, which was circulated and included in the written report compilation. He directed everyone to the written report for full details, but noted a few points during the call:

* This year saw a shift in the way GEO Plenary is run, with a focus on panel sessions, of which CEOS was involved in three – on user driven initiatives, GEOSS, and commercial sector engagement.
* The panel approach was very effective and well received. It is likely to continue in the future.
* The GEO Engagement Strategy was endorsed, and three specific engagement priorities were adopted: the UN SDGs, The Sendai Framework for Disaster Risk Reduction 2015, and climate change (specifically greenhouse gas monitoring).
* The 3-Year GEO Work Programme was endorsed.
* CEOS was accepted to serve on the GEO Programme Board in its next phase.
1. **GEO SEC Report**

Osamu Ochiai (GEO Secretariat) directed everyone to his written report, but noted some supplementary points related to GEO-XIII Plenary:

* New members, participating organizations, and observers were approved at the Plenary, bringing the totals to 103, 106, and 12 respectively.
* GEO reached an agreement on how to further implement its Data Sharing Principles and Data Management Principles.
* The Asia-Oceania GEOSS was approved, increasing the number of regional initiatives to three (AfriGEOSS, AmeriGEOSS and AOGEOSS).
* A renewed GEOSS Portal was released: [www.geoportal.org](http://www.geoportal.org)
* All presentations and materials from GEO-XIII are online at: [www.earthobservations.org/geo13.php](http://www.earthobservations.org/geo13.php)

Osamu noted that the 2017 GEO Work Programme Symposium will be held back-to-back with the 37th ISRSE Symposium (ISRSE-37) in Tshwane, South Africa. He encouraged CEOS representatives to participate in the meetings.

1. **CEO Report**

**Concept Note for a CEOS *Ad Hoc* Team on Sustainable Development Goals**

Jonathon Ross noted the paper circulated most recently on the 2nd of December, which aims to describe the context for the work to be undertaken by a CEOS *ad hoc* team on the Sustainable Development Goals (SDGs), and to present thoughts on what its short-term objectives should be. Jonathon noted that he has received one comment to date, which suggested that the call for team member nominations go out as soon as possible following SEC-219; Jonathon will send an email to the CEOS mailing lists. Jonathon added that 1 lead has already been identified (Alex Held, CSIRO) and another is sought.

Mark Dowell (EC/JRC) understands the rationale behind using GEO as a way to channel CEOS efforts, however he raised concern that the concept paper as it stands misses the opportunity of the *ad hoc* team to act as an integrator within CEOS of the bilateral discussions that many agencies are having with their national/regional departments.

Jonathon acknowledged the point raised by Mark and noted that he assumed this would fall under objective number two in the paper, through CEOS’s engagement with the GEO ExCom. Noting that the point could be more explicit, Jonathon took an action to add a new objective to the concept paper.

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| 219-02 | *CEOS Executive Officer (CEO) to add a new objective to the ‘Concept Note for a CEOS Ad Hoc Team on Sustainable Development Goals’ to address the concern raised by Mark Dowell (EC/JRC) during CEOS SEC-219 before circulating an updated copy to CEOS SEC for final approval.* | 2 December 2016 |
| 219-03 | *CEOS SEC to provide feedback on the draft SDG AHT Concept Note by the 10th of December, after which the document will be used as the ‘baseline’ for the work of the team and drafting of its terms of reference.* | 10 December 2016 |

Mark Dowell also noted that the European Commission recently adopted three new Communications (low-level legislative documents) specifically on the SDGs (and which explicitly reference geospatial technology and EO data sets). Mark took an action to share these with CEOS SEC.

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| 219-04 | *Mark Dowell to share the three newly adopted EC Communications on the SDGs with CEOS SEC.* | 2 December 2016 |

**CEOS Work Plan 2017-2019**

Jonathon raised two actions related to the CEOS Work Plan 2017-2019, and referred SEC to the CEO written report for all further details.

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| 219-05 | *Leads of AHTs/WGs/VCs and experts/others to provide initial input for the CEOS Work Plan 2017-2019 by the 14th of January, in accordance with the process presented at CEOS Plenary.* | 14 January 2017 |
| 219-06 | *SIT Chair Team to coordinate VC input for the CEOS Work Plan 2017-2019 by the 14th of January.* | 14 January 2017 |

1. **SIT Chair Report**

Ivan Petiteville (ESA, SIT Chair Team) reported on behalf of the ESA SIT Chair Team:

* The SIT Chair Team is working on preparations for both SIT-32 (25-27 April 2017 at ESA HQ in Paris, France) and the next CEOS-GEO coordination meeting (3 February 2017 in Geneva, Switzerland), taking into account decisions from the 30th CEOS Plenary and GEO-XIII Plenary.
* The 12 CEOS WGs and VCs will be surveyed in December 2016 to schedule the first round of consultation teleconferences that will take place between the end of January and the end of February 2017.
* The SIT Chair Team and the CEO participated in the 4th GEO Programme Board (PB) meeting (St. Petersburg, Russia, 7 November 2016). The GEO PB members reviewed both the report to Plenary and the report from the ‘Lessons Learned’ subgroup. Regarding the GEO 2017-2019 Work Programme mapping to the SDGs, the GEO PB reviewed the report from the SDG subgroup and the slides that were prepared for the Plenary.
* The CEOS SIT Chair will attempt to obtain an Observer position on the GEO ExCom.
1. **Working Group Reports**

**WGCV (Kurt Thome, NASA, Chair)**

Kurt Thome reported that the transition of the WGCV Secretariat to NASA has been the main focus for the WG since Plenary. He also reported that WGCV is busy planning for the next WGCV meeting, which will be held in May 2017 at USGS EROS. Kurt referred everyone to his written report for further updates.

Steve Labahn noted that Gene Fosnight (USGS) will be leading the medium-resolution optical interoperability framework that is part of USGS’s second CEOS Chair Initiative, and will be working closely with Kurt and WGCV over the coming months. Kurt noted that he is planning to travel to USGS soon to meet with Gene and prepare for the WGCV meeting.

**WGClimate**

WGClimate was not represented at CEOS SEC-219.

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

Andrew Mitchell reported on behalf of WGISS:

* A CEOS agency has expressed interest in putting forward a nominee for the WGISS Vice-Chair position and, at the moment, is still considering the four-year commitment, which would begin in November 2017. A decision is expected in time for SEC-220.
* WGISS was represented at GEO-XIII Plenary by Richard Moreno (CNES), during which he presented methods for accessing CEOS data via WGISS assets at the Data Provider Side Event on the 7th of November 2016.
* WGISS is working with the GEODAB (GEO Data Access Broker) team to identify and create best practices for GEO to connect to WGISS Connected Data Assets (CWIC and IDN) as well as to address the problem of duplicate datasets in brokering systems.
* WGISS (Gabor Remetey, Hungarian Association for Geoinformation) is presenting ‘WGISS Interoperable Standards and Information Architectures’ this week at the 15th Global Spatial Data Infrastructure World Conference.
* An email will be sent very soon regarding the January 2017 CEOS Data Discovery Webinar (which will cover IDN, FedEO, CWIC and WGISS Supported Standards). This webinar is being organised in collaboration with WGCapD.

**WGCapD (Senthil Kumar, ISRO, Vice-Chair)**

Senthil reported on behalf of WGCapD. He noted that WGCapD successfully completed a two session SAR training workshop in Bogotá, Colombia, which covered both agriculture (aligned with GEOGLAM) and seismology/volcanology. They were very successful events with around 50 students in attendance. Steve Labahn reminded Senthil about SEC action 213-04, which calls for the WGCapD Chairs to share the report from the workshop.

Senthil closed his report noting that capacity building for the CEOS Data Cube is a priority for the Working Group, as well as preparing for further SAR training workshops that will take place at ISRSE-37.

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

Christine Bognar (NASA) reported on behalf of Brian Killough (NASA, SEO):

* George Dyke (Symbios) will represent the SEO at the upcoming AGU Conference in San Francisco, California (December 12-16). George will meet with a number of representatives from Amazon, Google, Planet Labs, UK Space Agency (Richard Tipper), GEOGLAM (Alyssa Whitcraft), and WGISS (Andy Mitchell).
* Brian Killough will attend the Landsat Science Team Meeting (January 10-12) in Boston, Massachusetts, USA. The USGS and the SEO continue to work closely on Data Cube efforts and the development of ARD products.
* The SEO Data Cube development team will be traveling to SERVIR headquarters (in Huntsville, Alabama, USA) from January 24-25 to train the SERVIR team in the installation and operation of Data Cubes, and to explore the potential of SERVIR Data Hub connections for future deployments.
* The SEO continues to make progress on the Data Cube core technology. The new cloud-based (Amazon) user interface now includes Fractional Cover to support the GEOGLAM Rangelands and Pasture Productivity (RAPP) initiative. Work also continues on the development of a prototype coastal erosion algorithm, a QGIS Data Cube plugin, and change detection (CCDC).
* The SEO continues to make progress on several key prototypes including Colombia (the goal is to have a version 2.0 Data Cube in place by the end of 2016), Switzerland, and World Bank (Chad, Togo, Tonga, Cortijo). The team is also working with CSIRO to develop plans for an Asian Data Cube, possibly targeted to Vietnam and the Mekong region.
1. **Brief Status Updates of *Ad Hoc* Initiatives**

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

Matt Steventon reported on behalf of the SDCG for GFOI:

* The GFOI Review results and Leads’ feedback was emailed to CEOS SEC after CEOS Plenary. The Review was enthusiastically welcomed by the major donors (Australia and Norway) as well as the GFOI Leads, and paves the way for a renewed push in the form of GFOI Phase 2. A Phase 2 Task Force has been assembled and Stephen Ward (alternate CEOS Lead for GFOI) will serve as the point of contact for CEOS.
* CSIRO and NASA volunteered to support the continuation of Symbios capacity to serve as the SDCG Secretariat in 2017, and this was acknowledged with significant gratitude by the SDCG agencies and SDCG-Exec, as well as the GFOI Leads.
* CEOS Plenary agreed on the following feedback to GFOI with regard to GFOI Phase 2, and the CEOS Lead will convey these points pending any final inputs from CEOS SEC:
	+ *CEOS welcomes the emphasis on country engagement now that GFOI has the MGD/REDDCompass and global data coverage.*
	+ *CEOS requests that an uptake strategy and plan be developed to show a credible path.*
	+ *The SDCG proposal to promote a model national GFOI demo (Colombia) was endorsed by the GFOI Leads after GFOI Plenary; we now wish to see action in this direction.*
	+ *CEOS requests confirmation of funding status and outlook from the GFOI Leads – pending reaction to the GFOI Review.*
* The GFOI Plenary and SDCG-11 will be held in Ho Chi Minh City, Vietnam, in the week of April 10th, 2017. With VAST possibly taking on the 2019 CEOS Chair role, and a delegation from CSIRO travelling to Vietnam in mid-December to discuss a Vietnam Data Cube pilot, this is a very timely opportunity.

**CEOS *Ad Hoc* Working Group on GEOGLAM (Matt Steventon)**

Matt Steventon reported on behalf of Brad Doorn (NASA, CEOS *Ad Hoc* Working Group on GEOGLAM Co-Lead).

Matt invited Alex Held to say a few words regarding the CEOS representative to the GEOGLAM Advisory Committee. Alex and Steve Labahn confirmed that Alex will once again serve as the CEOS representative.

Matt also noted that:

* The revision of the GEOGLAM EO data requirements is underway.
* ESA ESRIN will host a May 2017 GEOGLAM meeting on EO and information requirements, as well as R&D outcomes and the creation of a compendium of R&D findings (perhaps similar to the GFOI MGD). Key inputs have already been received from many JECAM sites as well as Asia-RiCE.
* The GEOGLAM *Ad Hoc* Working Group are coordinating with WGCapD on a possible collaboration in 2017.
* AfriGAM launched at AARSE in Uganda, October 2016 (AfriGEOSS Agricultural Monitoring). It is a joint contribution to GEOGLAM and AfriGEOSS. Matt referred everyone to the 1-page *“The Case for AfriGAM”* that was included with the written reports for more information.

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

Steve Labahn (USGS, FDA-AHT Co-Lead) reported on behalf of the *ad hoc* team:

* Steve noted that the team is being restructured following the renewal of its mandate at CEOS Plenary, and the Co-Chairs have been confirmed as Steve Labahn (USGS), Alex Held (CSIRO), and Nick Hanowski (ESA). He made a final call for agencies to nominate representatives for the 2017 FDA *Ad Hoc* Team, including in support of the pilot activities.
* Steve recalled the document circulated on November 15th: “*Future Data Access & Analysis Architectures (FDA) Study – 2017 Outcomes, Approach, and Invitation for Agency Participation*” and noted that any further feedback is still welcome.
* The first team teleconference will be held on Tuesday the 13th of December at 4pm US East. Anyone interested in participating should contact Steve for details.
* The FDA-AHT and the pilots have a significant dependence on the LSI-VC (to steward the trial production of ARD for the 2017 pilots) and agencies (to produce the data).

Ivan Petiteville reported that he could attend the January face-to-face meeting of the FDA-AHT Co-Leads at ESA ESRIN if helpful, as a representative of the ESA SIT Chair Team.

Senthil Kumar (ISRO) reaffirmed ISRO’s support of the FDA-AHT.

1. **AOB**

**2019 CEOS Chair Position**

Alex Held noted that CSIRO and JAXA have been working to identify an agency from the Asia-Pacific region to take on the 2019 CEOS Chair role. An official nomination letter has been received from the leadership of the Vietnam Academy of Science and Technology (VAST) (circulated with the agenda). He noted that ISRO has also communicated to CEOS leadership its interest.

Alex reported that CSIRO supports VAST’s nomination, and Yoshinori Yoshimura (JAXA) echoed the sentiment. They both recognized the importance of receiving an official confirmation of the necessary resources from a relatively new CEOS Member Agency, one that is yet to have served as CEOS Chair. Steve Labahn noted that USGS also fully support VAST’s nomination.

Christine Bognar noted that the interest from both VAST and ISRO is a positive development, and added that the geographic rotation of the CEOS Chair role is not set in stone. In the past, agencies from the same region have served consecutive terms. In 2013, both JAXA and CSIRO expressed interest in being the 2015 CEOS Chair. The Secretariat at the time conferred with both agencies and decided to allow consecutive chairmanships from the Asia and Pacific region. Jonathon Ross also noted that the last time this happened (in 2015/2016) it was due to the complementarity and continuity of the agencies’ activities.

It was agreed that the CEOS Secretariat will support VAST’s nomination for the 2019 CEOS Chair position.

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| 219-07 | *CEOS Chair Team to respond to VAST and ISRO regarding the CEOS Secretariat’s decision to support VAST for the 2019 CEOS Chair role, and to give further consideration to the possibility of ISRO serving as CEOS Chair in 2020.* | 14 December 2016 |

1. **Next Meeting and Adjourn**

An extra SEC meeting between SIT Technical Workshop and CEOS Plenary has been added to the 2017 schedule. October 5 was suggested and SEC agreed.

Frank Kelly adjourned the meeting. He thanked everyone for attending and reported that CEOS SEC-220 will take place on the 2nd of February 2017. It was noted that this is at the same time as the next GEO Programme Board meeting. The CEOS Chair Team will consider the options for rescheduling the call.

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| 219-08 | *CEOS Chair Team to consider rescheduling CEOS SEC-220 due to the current conflict with the next GEO Programme Board meeting.* | 14 December 2016 |

1. **Appendix – Written Reports**

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

* Head of the CEOS Delegation to the 13th GEO Plenary
* Working Group on Disasters (WGDisasters)
* CEOS/CGMS Working Group on Climate (WGClimate)
* Working Group on Information Systems and Services (WGISS)
* Working Group on Calibration and Validation (WGCV)
* CEOS Executive Officer (CEO)
* GEO Secretariat (GEO SEC)
* Strategic Implementation Team (SIT)
* CEOS Representatives to the GEO Programme Board
* CEOS Systems Engineering Office (SEO)
* Space Data Coordination Group for the Global Forest Observations Initiative (SDCG-GFOI)
* CEOS *Ad Hoc* Working Group on GEOGLAM (CEOS-GEOGLAM)
* Future Data Access & Analysis Architectures *Ad Hoc* Team (FDA-AHT)