GRWG/GDWG [Plenary Session](http://gsics.atmos.umd.edu/bin/view/Development/20200317) Web Meeting Notes

March 17, 2020 1000-1330 UTC

**Attendees:**

CMA: Xinya Gong, Xiuqing (Scott) Hu, Na Xu, Yuan Li, Sun Ling, and Lin Chen

ESA: Paolo Castracane, Raffaele Crapolicchio

EUMETSAT: Ken Holmlund, Tim Hewison, Viju John

KMA: Dohyeong Kim, Minju Gu, EunKyu Kim, and Hyeji Yang

JMA: Arata Okiyama and Kazuki Kodera

NASA: Jack Xiong, Dave Doelling, Ben Scarino

NOAA affiliated: Mitch Goldberg, Larry Flynn, Xinagqian “Fred” Wu, Quanhua “Mark” Liu, Fangfang Yu, Manik Bali, Likun Wang, Robbie Iacovazzi, Hyelim Yu, Andy Heidinger, Dave Tobin

WMO: Heikki Pohjola

**Agenda (New Designation / Old Designation):**

1.a / 1. [Annual Agency Calibration Reports](http://gsics.atmos.umd.edu/pub/Development/20200317/2020_gsics_GEOCalibrationReport_template-v3.pptx) (Fangfang Yu, discussion)

1.b / 2.a [Action Status](http://gsics.atmos.umd.edu/pub/Development/20200317/manik_action_status.pptx) (Manik Bali)

1.c / 2.b. [Actions from GSICS\_EP-20 &\_CGMS-47](http://gsics.atmos.umd.edu/pub/Development/20200317/Actions%20from%20GSICS_EP-20_CGMS-47_v1.0.pptx) (Dohyeong Kim)

1.d / 3. [Space Weather in GSICS](http://gsics.atmos.umd.edu/pub/Development/20200317/3%20Wu%20Space%20Weather%20in%20GSICS.pptx) (Fred Wu)

1.e / 5. [SITSCOS Workshop Summary](http://gsics.atmos.umd.edu/pub/Development/20200317/SITSCOS%20Workshop%20Summary.pptx) (Tim Hewison, discssion)

1.f / 4. [Outcome of ISCCP-NG workshop and Need for Future GSICS products for “GEO-ring interoperabilit](https://docs.google.com/presentation/d/14rH_3KYd_7H4DpJfvw5k1Q4kO1AO26T7bg0C0kg_y9Q/edit?usp=sharing)y (Andy Heidinger, discussion)

1.g / 6. Other Plenary Topics, Future meeting, and workshops (All)

**Future Meetings of Interest:**

Virtual Executive Panel Meeting is planned around May 20th.

A second EP meeting is planned for August at EUMETSAT before the CGMS Plenary.

There will be a web meeting on annual calibration reports in early April. Attendance by reference instruments representatives is key.

There will be a web meeting to review submitted calibration reports in early May.

An ECMWF/EUMETSAT Workshop on characterizing random and systematic errors in satellite data assimilation for NWP is scheduled for 2-5 November 2020.

Web meeting for GSICS / ISCCP Task Force in May or June.

**1.a Discussion on**[**Annual Agency Calibration Reports**](http://gsics.atmos.umd.edu/pub/Development/20200317/2020_gsics_GEOCalibrationReport_template-v3.pptx)

**Action: A.GWG.2020.1a.1** Web meeting to discuss GSICS agency calibration report extension requested in CGMS A47.01 *[GSICS to expand GSICS Report on the State of the Observing System to successively cover the calibration status of all instruments relevant GSICS.]* Assigned to Fangfang Yu.

**Action: A.GWG.2020.1a.2** All agencies to compile reports on calibration of instruments monitored by GSICS, following the template - to include IASI double-differences. Reports due by the end of April. A web meeting will be organized and held in early May to review the submitted reports. Assigned to all agencies.

Fangfang Yu gave a presentation with an outline and a sample report to use as a template. After discussion, the above actions were formulated. Executive panel members were present and provided some feedback.

**1.b** [**Action Status**](http://gsics.atmos.umd.edu/pub/Development/20200317/manik_action_status.pptx) **and User Engagement updates**

**Action: A.GCC.2020.1b.1** GCC to organize a web meeting to bring GSCIS Developers and users together. We need to learn how we can make the products better and more accessible. What do data assimilation groups want from GSICS? Do they know what we have? Assigned Manik Bali. (Note relationship to **A.GWG.2020.1e.1** below)

Manik Bali led a review of actions from last year’s review. Some important updates:

A.GWG.20200122.2 and A.GDWG.20190516.3 Annual calibration reports – closed by 1.a and actions there.

A.GWG.2019.10l.1 & A.GWG.2019.10l.2 Annual GRWG and GDWG Meetings – change to 2021 meeting hosted by KMA. Meeting in 2022 may be at LASP. This action needs to be updated to identify how we will determine the dates of the 2021 Annual meeting.

A.GEP.20190517.2 Integration into WIGOS – Continuing work by the EP. There is activity in the MW subgroup. They plan to hold a WIGOS session as a web meeting in April or May. Background on the action can be found in

<http://gsics.atmos.umd.edu/pub/Development/AnnualMeeting2019/5u_Goldberg_wigos.pptx>

**1.c** [**Actions from GSICS\_EP-20 & CGMS-47**](http://gsics.atmos.umd.edu/pub/Development/20200317/Actions%20from%20GSICS_EP-20_CGMS-47_v1.0.pptx)

Dohyeong Kim reviewed the status of actions for GSICS from the two subject meetings. Updates included:

A47.01 Expand GSICS Annual reports – See **A.GWG.2020.1a.1** above.

A47.15 – GSICS to review Risk Assessment. Ken H.reported that a Risk assessment workshop was held at EUMETSAT. Nothing was directly assigned to GSICS at this stage. We know which satellites and instruments are flying and in which orbits, but this is not enough for a genuine risk assessment. Need to consider observing system gaps, such as hyperspectral soundings. Risk assessment needs to take a step further to assess accuracy.

A47.21 – Reprocessing workshop. Scott H. reported that the planned workshop on reprocessing and recalibration in China have been postponed until next year.

A47.24 & A.GEP.20190517.4 – GSICS Review of SWGC white paper. Ken H. and Fred W. provided comments on this topic. There will be some tests and data comparisons. A whitepaper will come out of these tests and comparisons. We should assign GSICS members to participate in these reviews. Perhaps Dohyeong Kim (KMA) and Fred Wu (NOAA).

A47.29 & A.GEP.20190517.2  – Cross-calibration of MW imagers. A report from the MW GRSG will be given at the next annual GSICS EP in May 2020. Microwave subgroup chairs are responsible for this action.This is related to a MW subgroup action A.GMW.2019.5t.1 “Manik Bali (NOAA) to circulate white paper on microwave imager inter-calibration to all agencies”.

**1.d Discussion on** [**Space Weather in GSICS**](http://gsics.atmos.umd.edu/pub/Development/20200317/3%20Wu%20Space%20Weather%20in%20GSICS.pptx)

**No New Actions.**

Fred Wu provided a short background on the instruments and research on inter-calibration of instruments to measure charged particles. While instruments have been flying on multiple platforms there are not well-developed methods for comparisons. Bringing these measurements into GSCIS would require formation of a new sub-group. It was recommended that no GRG action be taken until or unless there is commitment from Space Weather experts in at least two GSICS member organisations to form such a group. There is an existing action, A.GEP.20190517.4 “EP members to review the CGMS SWCG white paper for a possible contribution to SWCG activity”. This action could be extended to include polling to identify whether or not there is a commitment or we could wait for the white paper from the SWCG.

**1.e Discussion on** [**SITSCOS Workshop Summary**](http://gsics.atmos.umd.edu/pub/Development/20200317/SITSCOS%20Workshop%20Summary.pptx)

**Action: A.GWG.2020.1e.1** Create a GSICS Meeting to discuss GSICS input and what we would like to learn to guide participation in the ECMWF/EUMETSAT Workshop on characterizing random and systematic errors in satellite data assimilation for NWP. The meeting needs to occur before 30 September 2020. Assigned to Tim Hewison. (Note relationship to **Action: A.GCC.2020.1b.1** )

Tim Hewison reported on a workshop on space-based absolute calibration instruments, known as SI-Traceable Satellites (SITSATs). Slide 11 of his presentation is a table of GEO Imager calibration and performance before / after GSICS corrections. All agencies are encouraged to compile this table for all instruments monitored by GSICS - SEVIRI in EUMETSAT’s case.

Request from Tim H. - Can we have each member fill in a table of current instrument performance, required instrument performance, and GSICS improvement to uncertainty? In particular instruments from each GPRC.

The discussion included concerns on the use of the report and a need to clarify limitations of the tables in the report and associated special issue paper. Additional discussion:

Concern: Ken H. – There is something important missing from the GSICS/CEOS Workshop of SI-Traceable Space-based Climate Observing System Report. There seems to be no discussion regarding the drivers – i.e., requirements for better calibration of the observing network. Need to show that.

Response Tim H. – Different application areas will need different requirements – e.g., Spectroscopy, Ocean Color, etc. Section 3 captures different requirements. In the talk, just showed where GSICS have most contribution.

Concern: Ken H. –The Workshop Report is presented as a reference document for this or that, but has important omissions. This could give the idea that what is missed in the Report is not important. If sections are missing, they need to be included in some way.

Response: Tim H. - Reinforced the need to address the basic omission in the report. Will be covered in Executive Summary.

**1.f** [**Outcome of ISCCP-NG workshop and Need for Future GSICS products for “GEO-ring interoperabilit**](https://docs.google.com/presentation/d/14rH_3KYd_7H4DpJfvw5k1Q4kO1AO26T7bg0C0kg_y9Q/edit?usp=sharing)**y**

**Actions: A.GWG.2020.1f.1** GSICS will hold a web meeting in the May/June time frame to establish a Task Force from GSICS and "ISCCP-NG" to identify requirements and set up pilot programs before a meeting at EUMETSAT in September. Meeting expected in June or July. Assigned to Andy Heidinger, NOAA and Tim Hewison, EUMETSAT.

**Actions: A.GEP.2020.1f.1** Invite Andy Heidinger to give his presentation, or a newer version to the EP in May. Assigned to Mitch Goldberg and Andy Heidinger.

Andy Heidinger gave a presentation describing the need for a GSICS partnership with the ISCPP Next Generation activities. The Executive Panel attendees appreciated this as a key initiative that will drive GSICS activities over the next 2-3 years. ISCCP-NG will be relying on GSICS to monitor the calibration of all VIS+IR channels of all GEO imagers from 2023 onwards & develop corrections. ISCCP-NG is focused on new generation of imagers

The Executive Panel members in attendance recognized this as a key initiative that will drive GSICS activities over the next 2-3 years. GSICS expects to provide a system to monitor calibration of all VIS+IR channels of all GEO imagers from 2023 onwards & develop corrections if necessary

There are many open questions raised in the discussion. Some of them may be addressed at the dedicated meeting. For examples, Will this effort require making adjustments between instruments? Are the biases between instruments something that will be taken out by ISCCP-NG, by GISCS or by the Level 1 Providers? Will GSICS provide extra cross sensor homogenization? For the both the classic ISCCP and ISCCP-NG will there be a need for reprocessing, and if so do we need a workshop on the GSICS biases and their use in reprocessing?

**1.g Other Plenary Topics, Future meeting, and workshops (All)**

The main topics were on future meetings, annual agency and annual calibration reports, and what they should cover. Many of them have been captured above in the specific topic agenda item.

Meetings of interest from Ken H.

A face-to-face plenary will be last week in August at EUMETSAT.

Prior to that, need to plan an Executive Panel meeting that will be a WebEx meeting at least a week before CGMS. The time frame would be 18-20 August. Need to look at dates.

Certain things need to be clarified before the next Executive Panel meeting, and definitely before CGMS. May not be able to discuss all things in detail. Mitch and Ken will discuss in the next couple of weeks to see what is needed from GRWG and GDWG.

Question: Mitch G. – Who is the coordinator of Calibration Reports? Want consistency between reports. Make sure all GPRCs provide Calibration Reports.

Response: Fred W. – Calibration Reports are only due by GPRC, and not all GSICS members.

Response: Ken H. – It would be good to keep calibration reporting period the same. In the reporting note specific events from the end of reporting period and the EP meeting (April to August).

Response: Larry F. – We could make room for agency reports for the Annual Meeting in the Plenary wiki site.