



GSICS-RD004

Global Space-based Inter-Calibration System

Term of Reference of EP, GCC, GDWG and GRWG

Version 2.0

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**World
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Organization**

RECORD OF DOCUMENT CHANGES

Version	Date	Nature of change	Done by	Approved
1.0	29/06/2015	Creation	J. Lafeuille (WMO)	EP-16
2.0	09/06/2017	Updates to address CGMS Action A44.04 and Clarification of the Chairing of the Working Groups. Specified ToR for GRWG Sub-Groups and the chairing of these groups.	GDWG Co-Chairs: P. Miu (EUM) M. Takahashi (JMA) GRWG Sub-Group Vice-Chair: T. Hewison (EUM)	EP-18

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Terms of Reference of EP, GCC, GDWG and GRWG

1. GSICS Executive Panel (EP)

1.1. Composition of the Executive Panel

The GSICS Executive Panel is the executive body of GSICS. It is composed of members designated by each participating organization, and of observers designated by invited partner organizations.

A representative of the WMO Secretariat serves as Secretary of the Executive Panel.

1.2. Terms of Reference of the Executive Panel

The Executive Panel shall:

- a) Provide overall guidance for GSICS;
- b) Monitor and evaluate the performance of GSICS components, including the activities of the GSICS Coordination Centre (GCC), GSICS Processing and Research Centers (GPRC), Calibration Support Segments (CSS), GSICS Research Working Group (GRWG) and the GSICS Data Working Group (GDWG);
- c) Approve GSICS procedures and standards submitted by the GSICS Coordination Center in consultation with GRWG and GDWG;
- d) Approve the definition of GSICS products and deliverables and the admission of GSICS products to the operational status;
- e) Prepare an annual report to the CGMS and the Director, WMO Space Programme, on the status and accomplishments of GSICS;
- f) Nominate the chairs, vice-chairs or co-chairs, of the GRWG and GDWG among the designated members of these groups , on a 3-year renewable basis;
- g) Decide on appropriate actions such as workshops and sessions at scientific meetings in order to advance the objectives of GSICS, publicize GSICS achievements, and seek feedback from users of GSICS deliverables;
- h) Review the GSICS Annual Operating Plan and provide guidance for its implementation;
- i) Endorse GSICS Reference Documents such as the GSICS Functions and Organization, the GSICS Vision, GSICS User Requirements Document, the Guide to GSICS Products and Services, GSICS Terms of Reference, and the GSICS Science Plan.

1.3. Meetings of the Executive Panel

The Panel is convened once a year, if possible in conjunction with the annual meeting of the Coordination Group for Meteorological Satellites (CGMS), and holds virtual meetings as appropriate. The GCC and the Working Group Chairs are represented at the meetings.

1.4. Role of the Executive Panel Chairperson

The EP Chair is designated for a term of two years, renewable, with a primary role to chair the sessions of the panel, to lead the progress of GSICS between sessions and to represent GSICS when necessary.

More specifically, the role of the EP Chair includes:

- a) To conduct the work of the panel, defining the schedule and agenda, acting as moderator of the sessions, drawing conclusions with actions and recommendations reflecting the opinion of the Panel members, with the support of the WMO Secretariat;
- b) To stimulate progress in implementing the agreed action plan, through regular intersession virtual meetings;
- c) To lead the definition and update of the high-level objectives of GSICS, and to promote them, seeking the engagement of all members;
- d) To represent GSICS with external parties as necessary, coordinate with relevant projects to identify and implement collaborative activities;
- e) To report to CGMS on the progress, the challenges and the plans of GSICS.

The Chair is assisted by a Vice Chair, nominated for the same period, who can replace the Chair if necessary.

In the event that there are several nominations for EP chairs or Vice Chair, the nomination shall be based on an EP majority decision.

2. GSICS Coordination Center (GCC)

2.1. Role of the GCC

The responsibilities of the GSICS Coordination Center (GCC) are the following:

- a) Maintain the list of GSICS product and services, with definitions and explanations on how to access and use them;
- b) Maintain a repository of GSICS standards, procedures, and tools, with related documentation;
- c) Coordinate the GSICS product evaluation processes, considering the product theoretical basis, quality assurance, data protocols, and the associated documentation, in particular through developing and coordinating the implementation of the GSICS Procedure for Product Acceptance (GPPA);
- d) When applicable, maintain a capability to run baseline inter-calibration algorithms for software validation purposes;
- e) Support GRWG and GDWG in their research and data management activities and participate in their meetings;
- f) Track and update the progress of the GSICS Operations Plan;
- g) Support GSICS end-to-end demonstrations and promote GSICS towards potential users;
- h) Design and maintain the GCC web site;
- i) Publish GSICS Quarterly newsletter, and support development of other GSICS publications;
- j) Manage user consultation mechanisms, including the organization of GSICS Users Workshops and the GSICS User Messaging service, and maintain User Requirements documents;
- k) Provide an annual report to the Executive Panel on the progress of GSICS standard practices and tools, the status of GSICS products, and user feedback.

2.2. Implementation of the GCC

The GCC role must be assigned to a GSICS Production and Research Center (GPRC).

The GCC role is assumed by NOAA through its National Environmental Satellite Data and Information Service (NESDIS) Center for Satellite Application and Research (STAR).

3. GSICS Data Management Working Group (GDWG)

3.1. Composition of the GDWG

The GSICS Data Management Working Group (GDWG) is an advisory body of the GSICS Executive Panel (EP) for data management and exchange issues. It is composed of Data Management experts designated by GSICS member organizations. Due to the technical nature of the working group's discussions, Data Management experts shall have the following skills:

- Software Development Life Cycle.
- Data formats ideally used for the dissemination of satellite data.
- Meta-data and software coding guidelines, conventions and standards.

All GSICS member organizations are expected to nominate at least one representative in the GDWG.

3.2. Terms of Reference of GDWG

The GDWG shall:

- a) Oversee and coordinate the data management activities of GSICS and advise the EP on questions related to GSICS data management including information delivery services;
- b) Coordinate the specification of data and metadata formats and procedures for data exchange between the satellite agencies, the GSICS Processing and Research Centers (GPRCs), and the GSICS Coordination Center (GCC);
- c) Support the specification of GSICS systems administered by the GCC; GSICS product catalogue, GSICS User Messaging Service, GSICS Wiki, etc.
- d) Support the specification of GSICS systems and tools administered by the GSICS member and observer organizations.
- e) Review and validate GSICS deliverables from a data management perspective;
- f) Provide guidance to the contents and appearance of the GSICS websites maintained by WMO, GCC, and each GPRC;
- g) Maintain cooperation with the research and development activities at the GPRCs and assist with their data management activities, as appropriate;
- h) Provide the GSICS Executive Panel with a report on GSICS data management activities including recommendations as appropriate. Submit report three weeks prior to the annual meeting of the GSICS Executive Panel, and present it to the Panel.

GDWG convenes at least annually, preferably in conjunction with GRWG, and more frequently if appropriate.

It is expected that GDWG members will contribute to GDWG activities at the level of at least one man month per year. This level of commitment does not include the development and operation of agreed GSICS related systems. GSICS member organizations are expected to commit additional resources for these systems to ensure developments are realized and systems operate at an acceptable level of service.

The GDWG is led by a Chair who is a participating GDWG member. The GDWG chair is assisted by two vice-chairs, one being the former chair, and the other being the expected future chair.

3.3. Role of the GDWG Chairperson

The GDWG chair is designated for three years (renewable) with a primary role of leading, organization, coordination, moderation and communication to ensure the GSICS Data management Working Group fulfills its role as defined in its Terms of Reference. The Chair can be assisted by at least one Vice-Chair.

Specifically, the GDWG chair shall:

- a) Coordinate the development of GSICS data management activities including the identification of existing formats, standards and procedures to be adopted for GSICS Products, or the definition of GSICS-specific ones, in order to catalog, archive, exchange, specify methods and tools to visualize GSICS products and specify services to distribute them to GSICS users.
- b) Coordinate the technical support for the activities of the GRWG
- c) Schedule and chair the GDWG annual meeting and teleconference meetings to continue the activity during the year, acting as moderator. In coordination with GRWG and sub-group chairs, define agenda, agree actions and recommendations from above meetings, and organize their follow-up.
- d) Coordinate with external projects specifying GSICS Data Management needs as necessary to identify and implement collaborative activities
- e) Report to the Executive Panel; this shall be submitted three weeks prior to the annual meeting of the GSICS EP and presented to the Panel.

The election of the Chair is based on nominations by GDWG members. By GDWG majority decision a recommendation for the Chair is submitted to GSICS-EP for confirmation.

4. GSICS Research Working Group (GRWG)

4.1. Composition of the GRWG

The GSICS Research Working Group (GRWG) is an advisory body of the GSICS Executive Panel (EP) for scientific and technical issues. It is composed of satellite instrument and calibration experts, and downstream users concerned with sensor performance designated by GSICS member organizations. All GSICS member organizations are invited to nominate representatives in the GRWG.

4.2. Terms of Reference of the GRWG

The GRWG shall:

- a) Advise the EP on scientific and technical questions related to the technical specifications of GSICS products;
- b) Foster the development of inter-calibration scientific methods to be implemented in GSICS operations in order to advance the GSICS overarching goal of ensuring the comparability of satellite measurements;
- c) Contribute to the development of applications of satellite inter-calibration through cooperation with the user community;
- d) In cooperation with, and with input from the GSICS Processing and Research Centers (GPRC) and other contributing parties, maintain a summary status of research projects supported under the GSICS distributed research component;
- e) Convene at least an annual meeting to review the GSICS development activities and evaluate the results and methodologies with respect to their suitability for implementation as GSICS standard or recommended practices;
- f) Provide the EP with an annual report on GSICS accomplishments and planned scientific activities, including outstanding issues and recommendations as appropriate to advance the objectives of GSICS. Submit report three weeks prior to the annual meeting of the GSICS Executive Panel, and present it to the Panel.

The GRWG shall establish sub-groups dedicated to specific areas of expertise.

It is expected that GRWG members will contribute GRWG activities at the level of at least one man month per year. This level of commitment does not include the development and operation of agreed GSICS related systems. GSICS member organizations are expected to commit additional resources for these systems to ensure developments are realized and systems operate at an acceptable level of service.

The GRWG is led by a Chair is a participating GRWG member. The GRWG chair is assisted by two vice-chairs, one being the former chair, and the other being the expected future chair.

4.3. Role of GRWG Chairperson

The GRWG chair is designated for three years (renewable) with a primary role of leading, organization, coordination, moderation and communication, to ensure the GSICS Research Working Group fulfills its role as defined in its Terms of Reference.

Specifically, the GRWG chair shall:

- a) Coordinate the development of inter-calibration products and methodologies, and related scientific issues, with delegation to Sub-Groups as appropriate, with a view to promote common standards and best practices ensuring comparability of satellite measurements;
- b) Schedule and chair the GRWG session and plenary session of the annual GRWG-GDWG meeting and monthly web meetings, acting as moderator. In coordination with GDWG and Sub-Group Chairs, define agenda, approve invitation of non-members, agree conclusions, actions and recommendations from the meetings, and organize their follow up;
- c) Represent the GRWG with external parties as necessary, coordinate with relevant projects to identify & implement collaborative activities;
- d) Report to the Executive Panel, this shall be submitted three weeks prior to the annual meeting of the GSICS EP and presented to the Panel.

The election of the Chair is based on nominations by GRWG members. By GRWG majority decision a recommendation for the Chair is submitted to GSICS-EP for confirmation.

5. GRWG Sub-Groups

5.1. Composition of the GRWG Sub-Groups

The GRWG Sub-Groups are advisory bodies to the GRWG for a specific area of instrument calibration. They are composed of experts in this area designated by GSICS member organizations. All GSICS member organizations are invited to nominate representatives for these Sub-Groups, but their membership is also open to participants from non-member organizations to provide specialist expertise.

5.2. Terms of Reference of a GRWG Sub-Group

A GRWG Sub-Group shall:

- a) Understanding users' requirements for the sub-groups' inter-calibration products;
- b) Identifying existing products that could meet those requirements:
 - Encouraging the creators of those products to submit them to the GPPA;
 - Reviewing these products with other members of the Sub-Group and users to ensure they adhere to GSICS principles;
 - Developing new inter-calibration products, based on GSICS principles;

- Submitting these to the GPPA;
- Liaison with users as beta testers;
- Interaction with GSICS Data Working Group;
- To ensure products are made available to users;
- Adhering to GSICS standards;
- Ensure all required data is available to researchers & users;
- Generation of standards and best practices;
- In coordination with other groups (such as WGCV Sub-Groups).

It is expected that GRWG Sub-Group chairs will contribute to GRWG activities at the level of at least one man month per year. This level of commitment does not include the development and operation of agreed GSICS related systems. GSICS member organizations are expected to commit additional resources for these system to ensure developments are realized and systems operate at an acceptable level of service.

The GRWG Sub-Group is led by a Chair nominated by the GRWG chair on a three-year basis.

The GRWG chair invites applications to chair sub-groups, the Sub-Group chair shall:

- propose the sub-group's scope and working plan;
- coordinate the proposals for GSICS products for a specific theme;
- submit proposals for reviewed by GRWG chair and the GSICS Exec Panel to endorse for development;

The election of the GRWG Sub-Group Chair is based on nominations by GRWG sub-members. By GRWG sub-group majority decision a recommendation for the Chair is submitted to GRWG for confirmation.
