



GCC Director Report

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Joint GRWG-IV and GDWG-III Meeting

Tokyo, Japan

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Agenda



◆ GCC 2008

- Downstream Data Project Coordination
- GSICS Information Services and Products (GISP) Roster
- GSICS Procedure for Product Acceptance
- GSICS Virtual Library Developments
 - GSICS central and GPRC web site developments
 - Collaborative Server with OPeNDAP/THREDDS software
 - TWiki
 - Saba Centra Web Meetings
 - Google Groups E-mail
- GSICS Quarterly and GSICS BAMS Article

◆ GCC Goals for 2009



Downstream Data Project Coordination

- ◆ Coordinated a study to develop improved Special Sensor Microwave/Imager (SSM/I) and SSM/I Sounder (SSM/IS) sensor data records.
- ◆ Records to be used to establish climatologies of hydrologic cycle variables – e.g., ice and snow cover and precipitable water.
- ◆ Work is being performed using Regional / Specialized Satellite Centres for Climate Monitoring (R/SSC-CM) data processing paradigm.



The GISP Roster is a priority list of current and potential GSICS products and services

- ◆ Satellite Instrument Information
- ◆ Satellite Instrument Performance Monitoring
- ◆ LEO-LEO Inter-calibration
- ◆ GEO-LEO Inter-calibration
- ◆ Spectral Calibration
- ◆ Spatial Calibration
- ◆ Vicarious Calibration of Solar Reflective Bands
- ◆ Radiative Transfer Simulations of Satellite Instrument Radiances
- ◆ Inter-comparison with SI Traceable Aircraft Radiometers
- ◆ Reprocessed Raw Data or Reprocessing Instructions???
- ◆ GSICS Product Guides
- ◆ GSICS Communication Tools

GCC 2008: Information Services and Products Roster



The GISP Roster is planned to be split into two documents

◆ *GISP Brochure*

- Most current GISP portfolio
- Web-based and includes names and descriptions of, and links to, GISP gateways

◆ *GISP Survey*

- List and descriptions of information services and products GSICS *would like* to offer
- Accompanying survey probes the marketability of these and other suggested information services and products
- Targeted towards potential GSICS data users

Procedure for Product Acceptance



The success of GSICS is intimately linked to the quality and usefulness of its products

The GSICS Procedure for Product Acceptance (GPPA) is designed to establish a method by which distribution-ready products from data providers around the world can be first carefully inspected, and then accepted as a GSICS product

The procedure consists of three major steps:

- ◆ *The product provider fills out a GSICS Product Application Form (GPAF);*
- ◆ *The GPAF is scrutinized by GPRC Representatives, GRWG and GDWG Chairs and the GCC Director; and*
- ◆ *If the application is accepted, the product enters into "demonstration mode," and the application is forwarded to the GSICS Executive Panel, who is responsible for the final decision to accept the product application.*

GCC 2008: GSICS Virtual Library



New GSICS Central Web Site

GSICS
Global Space-based Inter-Calibration System
An international collaboration to examine and harmonize data from operational weather satellites to improve climate monitoring and weather forecasting

[Skip Top Navigation](#)

WMO • CMA • CNES
EUMETSAT • KMA • JMA
NOAA • NASA • NIST

<http://www.star.nesdis.noaa.gov/smcd/spb/calibration/icvs/GSICS/index.php>

The NESDIS/STAR web designer has transformed the current GSICS web site using the NESDIS/STAR Web Site Kit.

This web site kit offers:

- ◆ Web page templates that do not require design work, and can be edited with a simple text editor
- ◆ No frames
- ◆ Section 508 compliance
- ◆ Conformity with current STAR web site
- ◆ Instant approval by STAR for use on STAR computers.

GCC 2008: GSICS Virtual Library



New GPRC Web Sites

EUMETSAT Monitoring weather and climate from space

WHO WE ARE | WHAT WE DO | ACCESS TO DATA | IMAGE GALLERY | PUBLICATIONS | MEDIA

Home > What We Do > International Relations > CGMS > **GSICS**

GSICS

Global Space-based Inter-Calibration System (GSICS)

The Global Space-based Inter-Calibration System (**GSICS**) is an initiative of CGMS and WMO, which aims to ensure consistent calibration and inter-calibration of operational meteorological satellite instruments.

RELATED LINKS

- > **GSICS Meteosat IR Inter-calibration**
- > **GSICS MTSAT Calibration Monitoring by JMA**

Meteorological Satellite Center (MSC) of JMA

Home | Calibration | Products | Operations | Supports

Current position: Home > GSICS MTSAT Calibration Monitoring

GSICS MTSAT Calibration Monitoring

Navigation Monitoring | Calibration Monitoring

Contents

- Global Space-Based Inter-Calibration System (GSICS)

About us
Aims of our Activities
Sitemap

◆ EUMETSAT Main Page:

http://www.eumetsat.int/Home/Main/What_We_Do/InternationalRelations/CGMS/SP_1214310159208?l=en

Near-realtime displays of Meteosat-IASI inter-calibration results:

http://www.eumetsat.int/Home/Main/Access_to_Data/IntercalibrationServices/SP_1222354446018?l=en

◆ JMA

Main Page: <http://mscweb.kishou.go.jp/monitoring/calibration.htm>

GCC 2008: GSICS Virtual Library



International Web-based Meetings

EUMETSAT Hosted GRWG and GDWG Web Meetings using Saba Centra Web Meeting Facility

- ◆ Real-time voice capability
- ◆ Presentation and document upload capability
- ◆ Any participant can be given presenter meeting control by the moderator
- ◆ Interactivity tools – polling, chat, surveys, laughter/applause, Web touring – combined with rich multi-media.
- ◆ Mark-up slides and interactive whiteboards capture and save notes for later review.

GCC 2008: GSICS Virtual Library



gsics.wmo.int

- ◆ Currently the plan is to point the URL gsics.wmo.int to a GSICS web portal (or “façade”) on a host server
- ◆ Then links are to be made from this web portal to the NOAA GSICS web site and the GPRC GSICS web sites
- ◆ We are looking for an agency to host the GSICS web portal

GCC 2008: GSICS Virtual Library



GSICS @googlegroups

New GSICS Google Groups E-mail



- ◆ Google groups e-mail have been created for the GRWG (gsics-research), GRWG Leads (gsics-research-wg), and GDWG (gsics-data)
- ◆ Limited only to invited members
- ◆ E-mails go directly to all members of the group
- ◆ E-mails are also organized by thread and archived at Google
- ◆ Participation **does not** require a Google account, but web access to messages does

GCC 2008: GSICS Virtual Library



Upcoming GSICS Server at GCC



- ◆ 3.5 ~ 4 Tb space for data storage
- ◆ Anonymous FTP access from inside of STAR
- ◆ SCP/SFTP from outside of STAR with account, no VPN necessary
- ◆ OPeNDAP/THREDDS and related package for data distribution (plan to mirror EUMETSAT collaborative data server)
- ◆ Subversion for program version control/contribution/distribution
- ◆ TWiki to create a collaborative manuscript writing environment that is capable of tracking changes

GCC 2008: GSICS Publications



GSICS Quarterly

Global Space-based Inter-Calibration System

• CMA • CNES • EUMETSAT • JMA • KMA • NOAA • WMO •

www.orbit.nasda.naoa.gov/medialibrary/calibration/gsis/index.html

Vol. 1, No. 3, 2007

Robert A. Iacovazzi, Jr. and Jerry T. Sullivan, Co-Editors

GSICS LEO-LEO Inter-Calibration



In the past few years, estimation of post-launch inter-satellite calibration-related radiance biases between similar low-earth orbiting (LEO) satellite instruments has been improved substantially with the development of

the Simultaneous Nadir Overpass/Simultaneous Conical Overpass (SNO/SCO) method (e.g., Cao and Harding, 2002).

For each SNO/SCO event, the data is subsetted near the point where the nadir tracks of the two spacecraft intersect. For the cross-track scanning instruments, data at SNO events are then collocated using either nearest-neighbor or bilinear interpolation collocation methods. The SCO observations are collocated using a new technique developed by Iacovazzi and Cao (2007) to reduce the effect of inhomogeneous surface properties on SCO observations at window channels.

After subsetting and collocation, individual SNO/SCO data analyses proceeds very quickly by finding the reflectance or brightness temperature bias between each pair of collocated data at an SNO/SCO, and then averaging these biases over the SNO/SCO region. Over time, as the population of SNO events from the two satellites increases, it becomes possible to compute SNO-ensemble average measurement biases and

- ◆ *GSICS Quarterly*
Volume 2 - Four issues released. (*Looking for Asian News Correspondent*)

- ◆ GSICS article being prepared for the Bulletin of the American Meteorological Society by George Ohring



GCC 2008: Meetings



GSICS Meetings

- ◆ GSICS Executive Panel IV – WMO, July 2008, Geneva, Switzerland
- ◆ GSICS Executive Panel V– Hotel Sheraton Salobre Golf, November 2008, Maspalomas, Canary Islands, Spain

GSICS at Meetings

- ◆ CEOS-GEO Workshop on Data Quality Assurance – May 2008, NIST, Gaithersburg, MD, USA
- ◆ CALCON – Utah State University, August 2008, Logan, UT, USA
- ◆ SPIE Optics and Photonics – August 2009, San Diego, CA, USA
- ◆ 16th Conference on Satellite Meteorology and Oceanography – January 2009, Phoenix, AZ, USA

2009 Goals



◆ Implement Procedure for Product Acceptance

- Establish GSICS Product Application Form
- Establish criteria to be met by GSICS products (data filename formats*; transfer and storage protocols; quality assurance indicators; etc)

◆ GISPR

- Identify potential customers of GSICS products and services
- create a survey for them that will help prioritize and guide GSICS product and services development

◆ Satellite Instrument Anomaly Reports

- Set up a system by which satellite instrument anomalies are reported to GCC, which then can be distributed to the GSICS members

◆ GSICS Baseline Algorithm

- Help coordinate efforts to establish the GSICS baseline algorithm at NOAA GPRC

2009 Goals



◆ WG-2/08

- GCC investigate necessary steps to develop the central GSICS web site into a GSICS portal

◆ GSICS Registration Tool

- Create or subscribe to an online registration tool on the central GSICS web site for GSICS-sponsored workshops attended by non-GSICS members

Summary



- ◆ *Coordination of downstream data projects.*
- ◆ *Roster of potential and current GSICS information services and products has been drafted, and plans are to use it to help define GSICS goals and to survey data users for input regarding their data needs from GSICS*
- ◆ *GSICS Procedure for Product Acceptance has been accepted by the GSICS EP.*
- ◆ *GSICS central web site is being updated, and EUMETSAT and JMA have created local GPRC web sites*
- ◆ *TWiki and THREDDS/OPeNDAP running on GSICS server*
- ◆ *GRWG and GDWG Google E-Groups and GSICS web meeting capabilities are now established*
- ◆ *Spreading the GSICS message is also being done through the GSICS Quarterly, a BAMS GSICS article, GSICS meetings, and presentations at meetings of the scientific community*
- ◆ *Several 2009 Goals planned*