RMIB GERB Documentation Archive

User Guide

Older version:

23/05/2006 - RMIB Products User Guide V2.0

Management Related Documents

RGP : Requirements

24/01/2000 - MSG-RMIB-GE-RS-0001

The purpose of this document is to give the requirements which the RMIB GERB Processing (RGP) must fullfill.

RGP : Project Management Plan

01/02/2000 - MSG-RMIB-GE-PL-0001

This document gives an overview of the management of the RMIB GERB Processing (RGP) project. This project aims at fullfilling the requirements given in document MSG-RMIB-GE-RS-0001. The documentation related to the project is listed in MSG-RMIB-GE-LS-0001.

RGP : Document List

18/09/2000 - MSG-RMIB-GE-LS-0001

The purpose of this document is to give an overview of all the internal documentation generated or to be generated at RMIB relative to the GERB processing.

Design and Algorithm Development

RGP : Overview

06/03/2003 - MSG-RMIB-GE-TN-0004 Version 1.1

The purpose of this document is to give a general overview of the RMIB near real time GERB processing system. It explains why and how the complete processing system is divided into different

subsystems and how the data flows between these subsystems.

RGP : Data products Accuracy

24/01/2000 - MSG-RMIB-GE-TN-0011

The purpose of this document is to give an estimation of the accuracy of the GERB data products that will be generated by the RMIB GERB Processing (RGP).

RGP-SP : Spectral Modelling

29/09/1999 - MSG-RMIB-GE-TN-0005

This document describes the spectral modeling module within the SEVIRI Processing (SP) subsystem of the near real time RMIB GERB Processing (RGP) system.

This document is currently not available because under revision.

RGP-SP : Scene Identification

29/09/1999 - MSG-RMIB-GE-TN-0007

The purpose of this document is to give a detailed overview of the scene identification process that will run at RMIB on the flow of Meteosat or SEVIRI data. In the RGP, the scene identification is needed mainly to select adequate angular dependency model for the radiances to fluxes conversions.

This document is currently not available because under revision.

RGP-SP : Angular Modelling

01/02/2006 - MSG-RMIB-GE-TN-0008

The purpose of this document is to give a detailed overview of the angular dependency models that are used in the RGP. It explains how the unfiltered broadband radiances measured in the direction of the MSG satellite are converted into TOA fluxes.

This document is currently not available because under revision.

RGP : GERB processing

27/01/2000 - MSG-RMIB-GE-TN-0006

The purpose of this document is to give an overview of how the SEVIRI data is corrected by GERB data.

RGP Data Flow

16/08/2000 - MSG-RMIB-GE-TN-0009

The purpose of this document is to give an overview of: (i) the data flow between the several processes, (ii) the process management, and (iii) the general structure of the global process.

RGP : Resolution Enhancement

11/10/1999 - MSG-RMIB-GE-TN-0003; see also: L. Gonzalez, et al. Proceedings of the 2000 EUMETSAT Meteorological Satellite Data User's Conference. pp. 619–625, (Bologna, Italy), May 29 – June 2 2000.

The purpose of this document is to give an overview of the resolution enhancement subsystem of the near real time RMIB GERB Processing (RGP) system.

Output products

ROLSS ICD

02/09/2001 - MSG-RMIB-GE-IF-0001 (MS-word)

The purpose of this document is to specify all aspects of the interface between the RMIB On Line Short term Services (ROLSS) and GERB L2 users, with respect to data products that will be provided in a timely fashion during the operational lifetime of the GERB 1 instrument. This ICD is one of the two which define the interfaces of the RMIB GERB Ground Segment Processing System.

RGP : Data Products Description

11/02/2000 - MSG-RMIB-GE-IF-0002

The purpose of this document is to give a description of the data products that will be provided bt the RMIB to external users. External users include the RAL based GGSPS for the level 2 non real time flux product and real time users for real time flux products.

Documentation after coding

RGP-SP: Data Dictionary

28/07/2006 - MSG-RMIB-GE-TN-0024

This document is the data dictionary for the imager processing within the RMIB GERB processing. The document presents the various constant, data, models, climatology, …, used within this part of the processing.

Technical Notes

Use of TIGR-3 Atmospheric Profiles as Input for SBDART

20/06/2001 - MSG-RMIB-GE-TN-0029

This technical note describes how the atmospheric profiles of the TIGR-3 data base (provided by the LMD, *Laboratoire de Meteorologie Dynamique*) are used as input for the SBDART radiative transfer model.

Generation of a Data Base of TOA Spectral Radiance Fields

09/07/2004 - MSG-RMIB-GE-TN-0030

This technical note describes the generation, using the SBDART radiative transfer model, of a large data base of spectral radiance fields at the top of the atmosphere. This data base is of great importance to parameterize some subsystems within the GERB processing at RMIB, for instance the spectral modeling. In particulate, the document present the generation of physically realistic Earth and atmosphere conditions.

This document is currently not available because under revision.

Correction of the dispersion in the GERB's detector spectral response curves

12/07/2007 - MSG-RMIB-GE-TN-0031

This technical note quantifies the errors introduced in the GERB final products due to the dispersion of spectral response (SR) curves between the different GERB detectors. This dispersion is the cause of a dispersion of the detector's filtered radiances for a given observed scene. This document proposes a practical way to reduce the problem introduced by this dispersion for the RMIB GERB processing by a preliminary correction of the detector's radiances before the unfiltering process.

Direct Unfiltering of GERB Data

21/01/2003 - MSG-RMIB-GE-TN-0035

This technical note describes the transformation of the GERB SW and LW filtered measurements into unfiltered solar and thermal radiances. The method is called “direct unfiltering” as none spectral information from SEVIRI is needed, in contrario with the operational GERB unfiltering which uses some spectral information from the SEVIRI imager. This technical note provides the laws and parameters for the direct unfiltering of the GERB-2 and GERB-1 with the more recent version of the spectral response curves.

Meteosat Count versus CERES-TRMM Unfiltered Radiance

10/09/2003 - MSG-RMIB-GE-TN-0036

A database of colocated and coangular pairs of Meteosat-[5,7] and CERES-TRMM shortwave radiances has been built. From this data base, it is possible to derive simple parameterizations to estimate the broadband unfiltered shortwave radiance at TOA directly from the Meteosat count images. This technical note describes the data base and shows the scatter plots of the pairs Meteosat/CERES data.

Clear Ocean Correction for SEVIRI NB-to-BB Conversion

13-01-2006 - MSG-RMIB-GE-TN-0037

This technical note describes a method to correct the SEVIRI NB–to–BB estimation for clear ocean pixel. This correction is implemented in the SEVIRI processing part of the RGP.

GERB-2 V998 (Ed.1) ARG Radiances and Fluxes Intercomparison with CERES SSF Data

22-05-2006 - MSG-RMIB-GE-TN-0042 (old)

This technical note presents methodology and results of intercomparisons between the GERB V998 (Ed.1) ARG unfiltered radiances and fluxes and the corresponding quantities from the CERES SSF data. This document has been updated recently (see below).

GERB-2 Ed.1 ARG Radiances and Fluxes Intercomparison with CERES SSF Data

18-09-2007 - MSG-RMIB-GE-TN-0042

This technical note presents methodology and results of intercomparisons between the GERB Ed.1 ARG unfiltered radiances and fluxes and the corresponding quantities from the CERES SSF data.

Equivalence between the ARG, BARG and HR GERB formats

17-07-2007 - MSG-RMIB-GE-TN-0043

This technical note shows that the radiances and fluxes provided in the 3 main GERB level 2 formats (i.e. the ARG, BARG and HR formats) are consistent one to the others. That means that equivalent values are obtained when the GERB products are averaged over sufficiently large areas and time interval.

Impact of the change in SEVIRI radiance definition on the GERB products

10-03-2008 - MSG-RMIB-GE-TN-0044

This technical note analyzes the effect on the GERB products of the future change of definition of the SEVIRI radiance from spectral to effective.

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