# **RGP** product version history

### **General data policy**

Currently the RMIB Gerb Processing is continuously being improved and validated. The near real time data is made available for testing and early validation purposes only. No presentations or publications of GERB data should be made without the written consent of the GERB Principal Investigator.

### Known problems with the actual version

- Reflected solar fluxes: an asymmetry exists between morning and afternoon albedo values for clear sky pixels which are not located on the Greenwhich meridian.
- Straylight: the GERB data is affected by straylight which manifest itself as bright lines in the GERB images around midnight. The gain values around noon are also affected by straylight.
- Remaining cloud problems: solar zenith angle dependence of cloud detection. Near sunset (low solar zenith angle) the detection of clouds and aerosols is increased compared to other times.

## **Change history**

In general, you should use the highest numbered version of the data available for each product type. The software version allows you to know if the change has been done on the data you use. The date is just for information purpose. On the same day, different files can have been created with different version of the software (or even the same file can have been created with different version of software). During commissioning, not all changes are reported. "-" means that this information is unknown.

Product type		Software Version	Summary of changes	Earliest affected date
G4 GL	V100	20220812_151631	Release of GERB 4 data	06-May-2024
G1*	6		Change of AOD quantization value in GERB files	01-May-2010
G1*	6	20091022_120851	Change of the BAT calibration table by RAL and change of the cloud retrieval tables to be consistent with G2. New version numbers are in use: V005 for the level 1.5 and V006 for the level 2 products. It is expected that the new version could be the ED01 of G1.	23-Oct-2009
G1*	5		Change of SEVIRI radiance definition at EUMETSAT for the thermal channels (no effect expected on the GERB products)	05-May-2008
G1*	5	20070531_173507	New spectral response used in the processing. The SW and LW radiance are both affected at the transition. An additional trend appeared in the next two days before stabilisation. For some pixels (48, 49, 86, 87, 89, 165, 187-189, 250) the radiance has been strongly affected.	31-May-2007
G1*L20*SOL	4	20070511_130825	The sun glint mask is only applied on water surface type.	11-May-2007
G2*	3	-	G2 instrument has been stopped.	10-May-2007
G1*	4	-	NRT processing of G1 started. G1 NRT data has not been yet validated and is not suitable for scientific studies. Before release, noticeable changes may occur in G1 data.	26-April-2007
G2_SEV1_HR*EUROPE*V003	3	20060912_161052	A geolocation bug has been corrected. Data generated before should be used with the new geolocation file: G2_SEV1_L20_HR_GEO_EUROPE_20060912_140000_V003.hdf. Radiance and flux are not affected.	12-September-2006

Product type	Data Version	Software Version	Summary of changes	Earliest affected date
G2_SEV1_HR*V003	3	20060421_135249	Viewing angles were computed with satellite position at 0 degree. Satellite nominal position (3.4 degree West) is used from now on. The new viewing angles can be used with data generated before fixing the satellite position. Radiance and flux are not affected.	21-April-2006
G2_SEV1*V003	3	20060325	New version. Geolocation has changed. Non repeatability correction added. This version is the near real-time counterpart of Edition 1 data. The difference is that Edition 1 data has an additional quality control (QC) check and a 40 days delay. In the QC process, not all version 3 data is promoted as Edition 1 data.	25-March-2006
G2_SEV1_*	2	20060209_102033	<ul> <li>Modification of the GERB LW ADM: the 7.3, 8.7 and 9.7 um SEVIRI channels are not used anymore in the regresion (see tech. note. MSG-RMIB-GE-TN-0039).</li> <li>sun glint rejection angle for the aerosol retrieval is extended from 20 to 25 degree.</li> </ul>	09-Feb-2006
G2_SEV1_L20L, G2_SEV1_L20S	2	20060207_175528	Correction of a bug in cloud amount and cloud phase. It is possible to have an acceptable value by dividing the cloud amount or cloud phase by the cloud cover. Pixels with cloud cover equal to 100% were not affected.	07-Feb-2006
G2_SEV1_*	2	20060112_133000	Activation of the correction for clear ocean asymmetry	12-Jan-2006
G2_SEV1_*	2	20051222_154302	<ul> <li>» Improvement of the SEVIRI NB-2-BB conversion: the SW uses the "Dubrovnik version".</li> <li>» Desactivation of the LW ADM empirical correction.</li> </ul>	22-Dec-2005
G2_SEV1_*	2	20051202_145518	Correction of very small inacuracies in the SEVIRI geolocation (much less than 0.5 SEVIRI pixel).	2-Dec-2005
G2_SEV1_*	2	20051028_133225	GERB processing with the 08072005 version of the spectral response. Unfiltering parameters are adapted accordingly. Activation of the full thermal ADM correction (thin cirrus + hot desert). Implementation of a specific unfiltering for clear ocean footprint. Use of improved SEVIRI NB→BB regressions for the resolution enhancement. Use of CERES TRMM model SW albedo in sun glint condition over clear ocean. The changes have direct impact (improvement) on the level 2 GERB radiance and flux.	30-Oct-2005
G2_SEV1_L20A_H, G2_SEV1_L20S_M15_R50, G2_SEV1_L20L_M15_R50, G2_SEV1_L20L_H_EUROPE, G2_SEV1_L20S_H_EUROPE	2	20051028_100559	Angles resolution has been changed from 1 to 0.1 degree	30-Oct-2005
G2_SEV1_L20S, G2_SEV1_L20S_M15_R50	2	20050425_140303	Correction of a shift in the surface type image. This only affects the surface type image itself.	20-Oct-2005
G2_SEV1_L20S, G2_SEV1_L20L	2	20050425_140303	Rectification bug has been corrected.	24-April-2005
G2_SEV1_L20A_H	2	20050302_093109	Angles are sometimes calculated with wrong acquisition time.	02-Mar-2005
All SW	2	20041220_164642	Implementation of the CERES-TRMM SW ADM normalisation and aerosol correction for clear ocean ADM. "On-line" estimation of the "tau-threshold" image. Those improvements only affect the shortwave flux and scene id.	20-Dec-2004
G2_SEV1_*	2	20041011_133608	Activation of the empirical correction for clearsky values in ocean sunglint region.	11-Oct-2004 (20041011_131500)
G2_SEV1_*	2	20040929_162056	Activation of the empirical correction for longwave radiance-to-flux conversion ("thin-cirrus correction").	29-Sep-2004 (20040929_151500)
G2_SEV1_L20S_M15_R50, G2_SEV1_L20L_M15_R50 and G2_SEV1_L20A_H	2	20040929_100908	The viewing angles have been corrected. The nominal position of the satellite is used in place of the rectification nominal value (0 degree).	29-Sep-2004
SEV1	2	20040729_092256	Earth radius has been modified according to Eumetsat values. This should not impact the data values as the difference is negligible.	14-Jul-2004
MS7A	-	-	Generation of data based on MS7A is discontinued.	06-Jul-2004
BARG	2	20040423_1310	Spatial averaging of BARG data has been corrected. Should be $5\times5$ and was $6\times6$ pixels.	23-Apr-2004

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Product type	Data Version	Software Version	Summary of changes	Earliest affected date
All		-	Modification of BARG, ARCH and EURO geolocation tables. This has a slight effect on those geolocations except on the BARG for which the geolocation table is quite different. All the data, including the ARG, is slighty modified.	22-Apr-2004
		20040309_104836	SEVIRI cloud algorithm change for solving the sun glint problem. Before the change sun glint was systematically detected as cloud.	09-Mar-2004
	2		SEVIRI cloud algorithm change for solving the Sahel problem. Before the change the seasonal vegetation change in the Sahel was systematically detected as cloud.	09-Mar-2004
			Implementation of weighted ADM for mixed scene type (e.g. coastline)	09-Mar-2004
		-	Improvement of the geolocation using the real satellite position from L15 data	20-Jan-2004
		20031223_144402	Correction of the time interpolation. Before the correction, there is a systematic error of 15 minutes.	23-Dec-2003
SEV1	2	-	First products using SEVIRI data	19-Dec-2003
MS7A	1	-	Version using the GGSPS geolocation discontinued	07-Nov-2003
MS7A	2	-	Version using the NRT RGP geolocation	07-Nov-2003
MS7A	1	-	First products (using the GGSPS geolocation and Meteosat-7 data)	19-Dec-2002

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