



EarthCARE Product Disclaimer – MSI Level 1

Mission	EarthCARE	
Sensor	Multispectral Imager MSI	
Products	Level 1B M-NOM and Level 1C M-RGR	
Product Notice ID		
Issue/Rev Date	1.3	
Preparation	ESA L1 Processor Team	
Approval	ESA Project Management	

Summary

This Product disclaimer addresses the EarthCARE MSI Level 1 processing baseline AE, deployed since 13 Jan 2025 and published on 14 Jan 2025. This is the first public release of EarthCARE MSI level 1 data products.

The notice describes the MSI level 1 M-NOM and M-RGR baseline AE in terms of known issues and limitations of the data.



Processing Baseline

Processing Baseline	<ul style="list-style-type: none"> • AE
ECGP version	<ul style="list-style-type: none"> • MSI ECGP v.4.6

Current Operational Processing Baseline

ECGP	ECGP Version	Operational since
MSI ECGP	v 4.6	13 Jan 2025

Known product quality limitations

MSI Level 1 processing baseline AE has the following known limitations which will be addressed in future updates:

Radiometric accuracy

- Radiometric accuracy has been evaluated, as part of nominal commissioning activities. There are indications that **absolute radiometric accuracy of the solar irradiance is degraded in parts of the swath (approximately pixels 0 to 90) of the VIS band, with deviations reaching 10 to 20%**. This will lead to a similar reduction of accuracy of the earth reflectances in this band. This issue will be addressed, and the error reduced, in the next baseline by an update of the diffuser BSDF calibration data.

Geolocation accuracy at level 1C

- Level 1C M-RGR data products have systematic geolocation errors of up to 3 sampling distances (1.5 km). This is due to an erroneous rotation around the yaw axis introduced in an update of the coregistration calibration data. This issue will be addressed in the next baseline by an update of these data. Note that level 1B M-NOM geolocations are already well within their specifications.

References

MSI L1 Product Definitions. Volume A: Nominal products. EC.ICD.GMV.MSI.00001, version 03.07 (18 Dec 2024)

End of the Product Notice