

IASI L0 and L1 Daily Monitoring Report **Metop-C**

IASI monitoring team

29/07/2026 00:00:00 - 30/07/2026 00:00:00

1 Introduction

This report provides summary monitoring plots and figures from IASI instrument on the Metop-C satellite retrieved from the IASI L0 and L1 ENG product (3 minutes data packet) for 29/07/2026 00:00:00 - 30/07/2026 00:00:00 .

The monitoring data are extracted on PDU basis.

2 Data quantity 29/07/2026 00:00:00 - 30/07/2026 00:00:00

Product Type	Number	Action
L0 HKTM PDUs	481	-
L0 IASI PDUs	481	-
L1 ENG PDUs	481	-
L1 ENG distinct GEPSGranule	481	-
L1 DPX PDUs (RM: IASI-HIRS)	0	e
L1 DPS Files (RM: OBS-CAL NWP based)	481	-

Table 1: Data quantity

APID	Seq from	Seq to	Time from	Time to
PX1 (130)	13330	13332	20260729061010.536	20260729061010.969
PX1 (130)	13356	13358	20260729061017.673	20260729061018.102
PX1 (130)	13367	13369	20260729061020.048	20260729061020.481
PX1 (130)	13370	13372	20260729061020.696	20260729061021.130
PX1 (130)	13373	13375	20260729061021.344	20260729061021.778
PX2 (135)	-	-	-	-
PX3 (140)	13341	13343	20260729061012.915	20260729061013.348
PX3 (140)	13367	13370	20260729061020.048	20260729061020.696
PX3 (140)	13374	13376	20260729061021.563	20260729061021.997
PX4 (145)	13323	13325	20260729061009.024	20260729061009.454
PX4 (145)	13328	13331	20260729061010.102	20260729061010.751
PX4 (145)	13331	13333	20260729061010.751	20260729061011.184
PX4 (145)	13333	13335	20260729061011.184	20260729061011.618
PX4 (145)	13341	13343	20260729061012.915	20260729061013.348
PX4 (145)	13366	13368	20260729061019.833	20260729061020.266
PX4 (145)	13368	13370	20260729061020.266	20260729061020.696
IMG (150)	14012	14014	20260729061009.024	20260729061009.454
IMG (150)	14017	14021	20260729061010.102	20260729061010.969
IMG (150)	14027	14029	20260729061012.266	20260729061012.696
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Table 2 – continued from previous page

APID	Seq from	Seq to	Time from	Time to
IMG (150)	14030	14032	20260729061012.915	20260729061013.348
IMG (150)	14043	14045	20260729061016.372	20260729061016.805
IMG (150)	14057	14059	20260729061019.399	20260729061019.833
IMG (150)	14059	14061	20260729061019.833	20260729061020.266
IMG (150)	14061	14063	20260729061020.266	20260729061020.696
IMG (150)	14069	14071	20260729061021.997	20260729061022.645
VER (160)	16379	0	20260729035718.235	20260729035726.235
VER (160)	0	16380	20260729035726.235	20260729035726.235
VER (160)	-1	1	20260729035726.235	20260729035734.235
VER (160)	4980	4982	20260729061014.212	20260729061022.212
VER (160)	16380	0	20260729111414.217	20260729111422.217
VER (160)	1	16381	20260729111422.217	20260729111422.217
VER (160)	-1	2	20260729111422.217	20260729111430.217
VER (160)	16381	0	20260729183110.160	20260729183118.160
VER (160)	2	16382	20260729183118.160	20260729183118.160
VER (160)	-1	3	20260729183118.160	20260729183126.160
AUX (180)	-	-	-	-

Table 2: L0 data gaps

3 Instrument modes

Time	Transition from	Transition to
29/07/2026 00:00:15	-	Normal operation

Table 3: Instrument modes

4 L0 and L1 Data Quality

Flag	Value	Action
L0 IASI PDUs	481	-
L1 ENG PDUs	481	-
L1 ENG distinct GEPSGranule	481	-
GQisFlagQual set (PX1)	99.64 %	-
GQisFlagQual set (PX2)	99.66 %	-
GQisFlagQual set (PX3)	99.66 %	-
GQisFlagQual set (PX4)	99.61 %	-
GQisFlagQual set (all)	99.64 %	-

Table 4: Quality flags

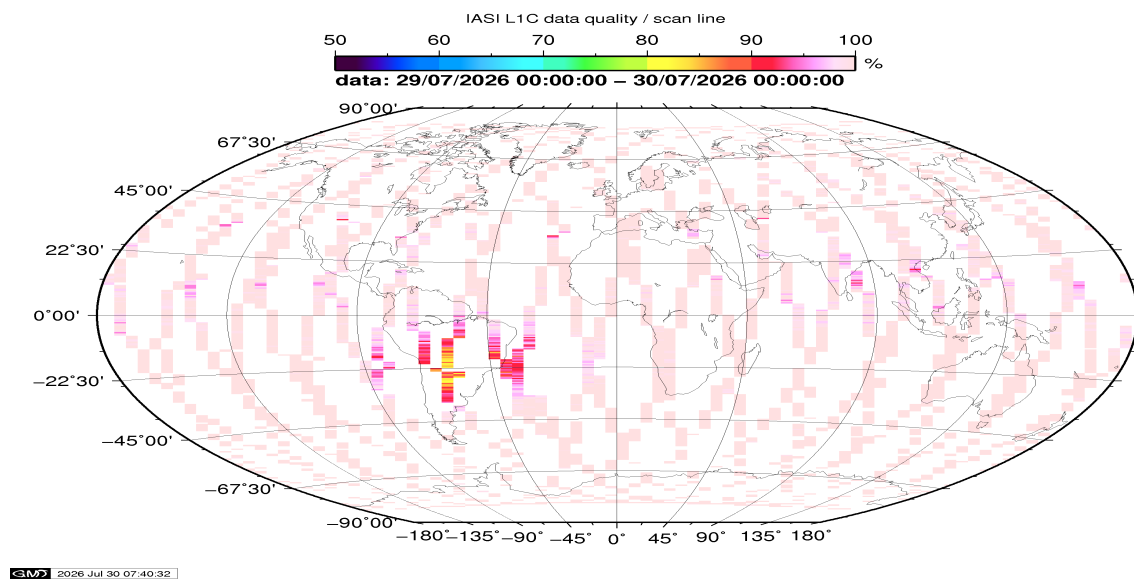


Figure 1: L1C data quality

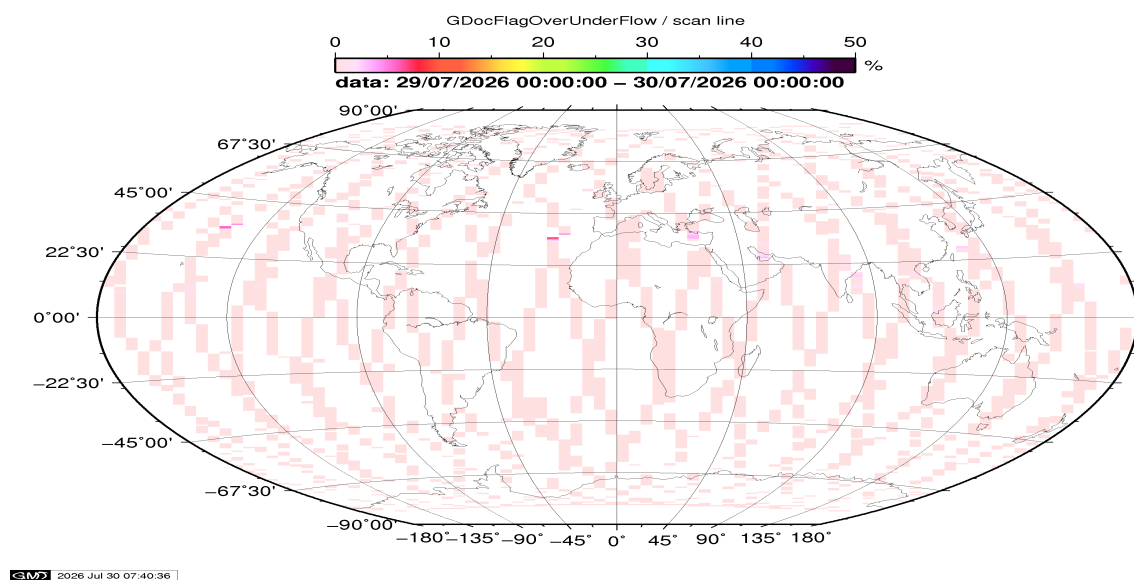


Figure 2: Flag of Over and Under Flows

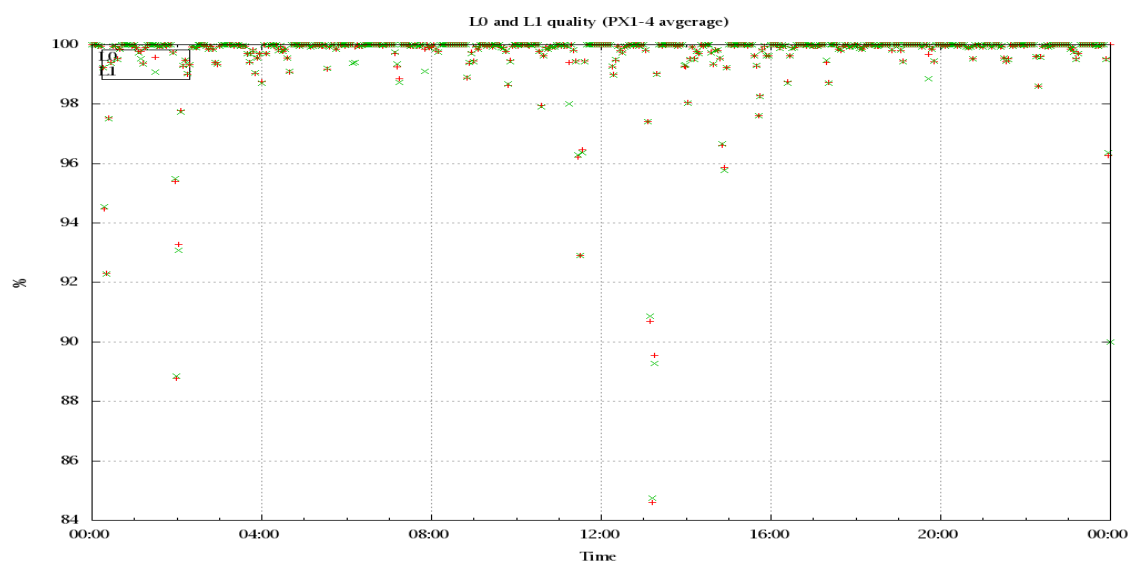


Figure 3: Level 0 and 1C overall quality

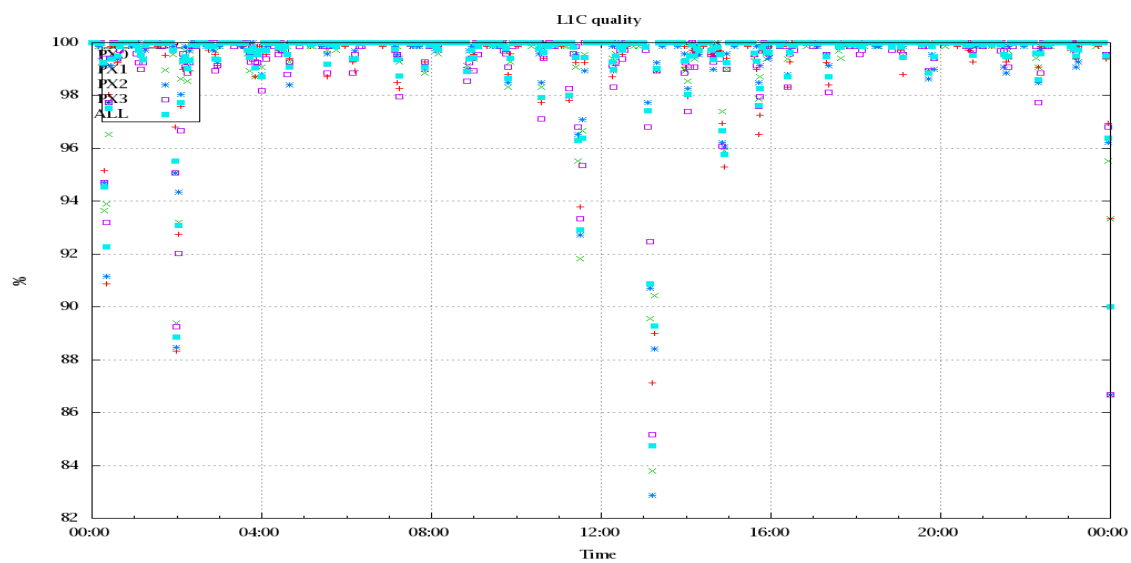


Figure 4: Level 1C quality

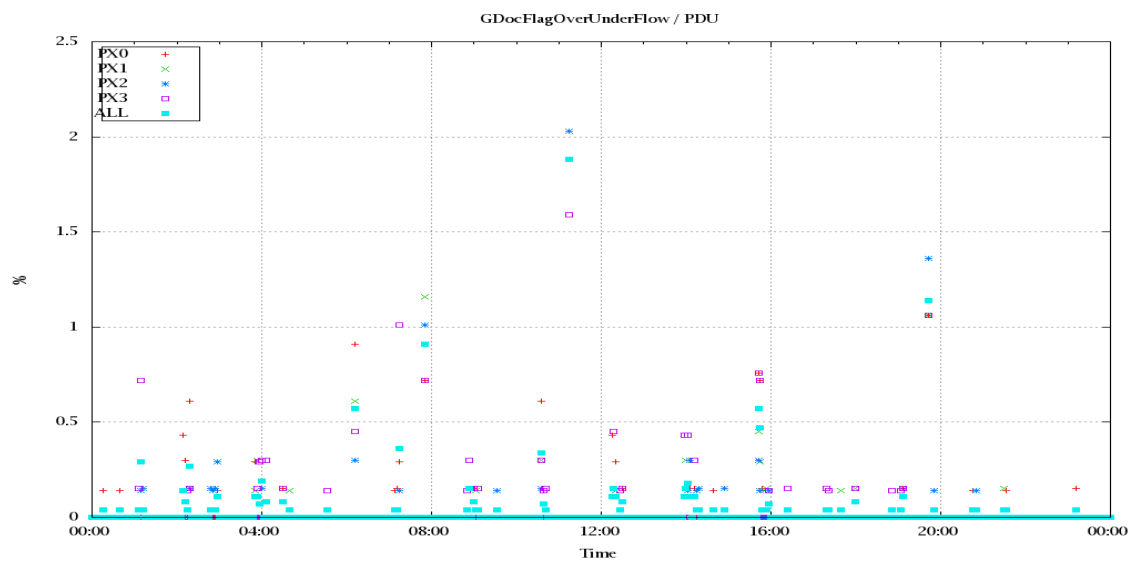


Figure 5: Timeseries of flag of Over and Under Flows

5 Radiance monitoring based on NWP

The radiance monitoring compares the IASI measurements (L1C-eps-products) obtained under clear sky situation over sea with modeled radiances. Cloud identification is based on cloud flag of co-located AVHRR L1B data in addition to information from the IASI L1C clustering analysis here only homogenous situations are taken into account (99.0 percent in first class).

A radiative transfer model (RTM) is feed with co-located ECMWF profiles of T, water vapor and Ozone. Between March 2007 and the 18th of May 2010 RTIASI in Version 4.0 is used. After that date the RTTOV model in V9.3 is used.

Information about the SST is obtained from the AVHRR L1B or taken from AVHRR scenes analysis (CGS only). In the following figures 28 to 34, the so-called radiance anomaly is shown. The radiance anomaly is defined as the difference between the quarter daily radiance average OBS-CAL (over all pixels and scan positions 10 to 20) and the average bias OBS-CAL (over all pixels and scan positions 10 to 20) of the last 30 days.

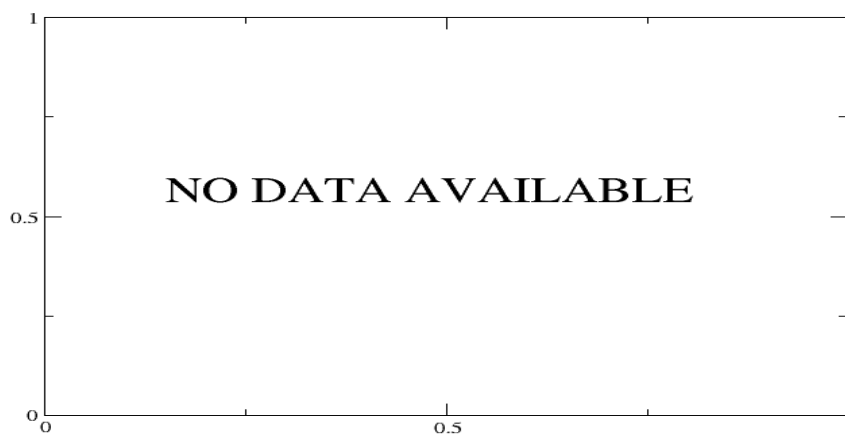


Figure 6: Average Radiance differences: OBS-CAL

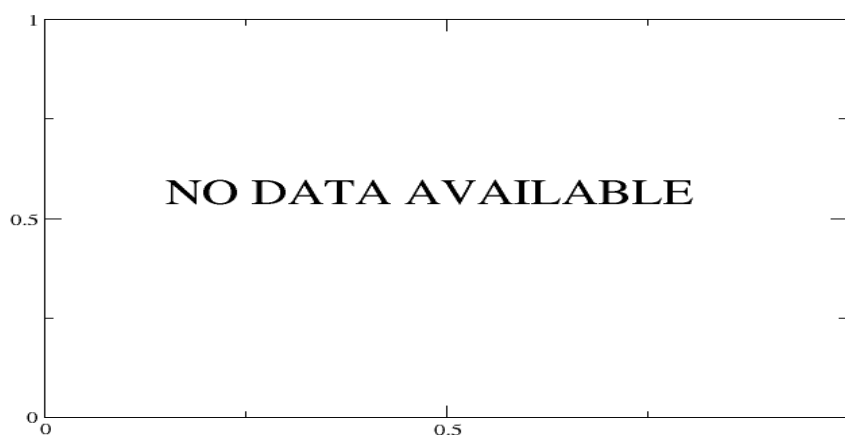


Figure 7: Standard Deviation of Radiance differences



Figure 8: Average Radiance differences: OBS-CAL



Figure 9: Standard Deviation of Radiance differences



Figure 10: Radiance Anomaly in BT: All Channels



Figure 11: Radiance Anomaly in BT: IASI Band 1



Figure 12: Radiance Anomaly in BT: IASI Band 2



Figure 13: Radiance Anomaly in BT: IASI Band 3

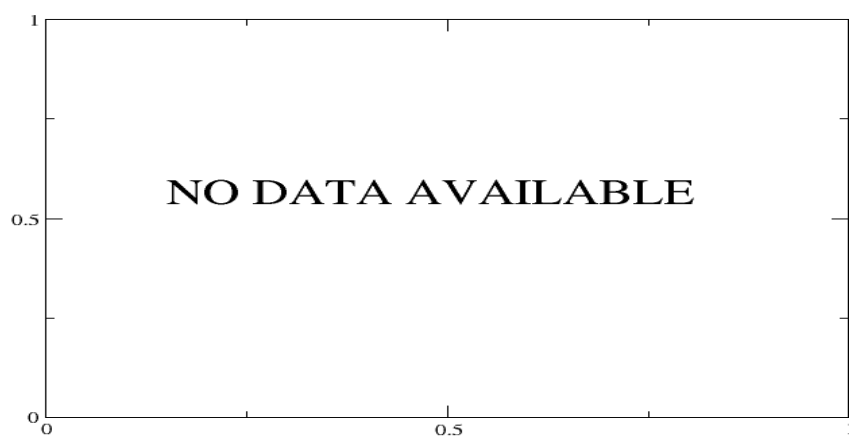


Figure 14: Radiance Anomaly in BT: CO2 14



Figure 15: Radiance Anomaly in BT: CO2 4.3



Figure 16: Radiance Anomaly in BT: O3