

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

IASI monitoring team

01/06/2026 00:00:00 - 02/06/2026 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 01/06/2026 00:00:00 - 02/06/2026 00:00:00 .

The monitoring data are extracted on PDU basis.

2 Data quantity 01/06/2026 00:00:00 - 02/06/2026 00:00:00

Product Type	Number	Action
L0 HKTM PDUs	481	-
L0 IASI PDUs	481	-
L1 ENG PDUs	480	-
L1 ENG distinct GEPSGranule	481	-
L1 DPX PDUs (RM: IASI-HIRS)	0	e
L1 DPS Files (RM: OBS-CAL NWP based)	480	-

Table 1: Data quantity

APID	Seq from	Seq to	Time from	Time to
PX1 (130)	822	824	20260601103727.224	20260601103727.658
PX1 (130)	828	915	20260601103728.521	20260601103751.873
PX1 (130)	915	917	20260601103751.873	20260601103752.306
PX1 (130)	917	924	20260601103752.306	20260601103753.818
PX1 (130)	925	928	20260601103754.037	20260601103754.685
PX2 (135)	827	913	20260601103728.306	20260601103751.439
PX2 (135)	915	917	20260601103751.873	20260601103752.306
PX2 (135)	918	922	20260601103752.521	20260601103753.388
PX2 (135)	924	929	20260601103753.818	20260601103754.900
PX3 (140)	827	913	20260601103728.306	20260601103751.439
PX3 (140)	918	921	20260601103752.521	20260601103753.170
PX3 (140)	921	924	20260601103753.170	20260601103753.818
PX3 (140)	924	928	20260601103753.818	20260601103754.685
PX4 (145)	827	914	20260601103728.306	20260601103751.658
PX4 (145)	916	918	20260601103752.088	20260601103752.521
PX4 (145)	918	920	20260601103752.521	20260601103752.955
PX4 (145)	920	923	20260601103752.955	20260601103753.603
PX4 (145)	925	928	20260601103754.037	20260601103754.685
IMG (150)	4960	5057	20260601103728.306	20260601103751.224

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Table 2 – continued from previous page

APID	Seq from	Seq to	Time from	Time to
IMG (150)	5057	5059	20260601103751.224	20260601103751.658
IMG (150)	5059	5062	20260601103751.658	20260601103752.306
IMG (150)	5065	5068	20260601103752.955	20260601103753.603
IMG (150)	5068	5071	20260601103753.603	20260601103754.252
VER (160)	16382	0	20260601062837.300	20260601062845.300
VER (160)	3	16383	20260601062845.300	20260601062845.300
VER (160)	-1	4	20260601062845.300	20260601062853.296
VER (160)	9328	9344	20260601103725.279	20260601103757.279
VER (160)	16379	0	20260601210221.226	20260601210229.226
VER (160)	0	16380	20260601210229.226	20260601210229.226
VER (160)	-1	1	20260601210229.226	20260601210237.226
AUX (180)	5128	5131	20260601103725.713	20260601103749.713

Table 2: L0 data gaps

3 Instrument modes

Time	Transition from	Transition to
01/06/2026 00:00:06	-	Normal operation

Table 3: Instrument modes

4 L0 and L1 Data Quality

Flag	Value	Action
L0 IASI PDUs	481	-
L1 ENG PDUs	480	-
L1 ENG distinct GEPSGranule	481	-
GQisFlagQual set (PX1)	99.65 %	-
GQisFlagQual set (PX2)	99.71 %	-
GQisFlagQual set (PX3)	99.70 %	-
GQisFlagQual set (PX4)	99.66 %	-
GQisFlagQual set (all)	99.68 %	-

Table 4: Quality flags

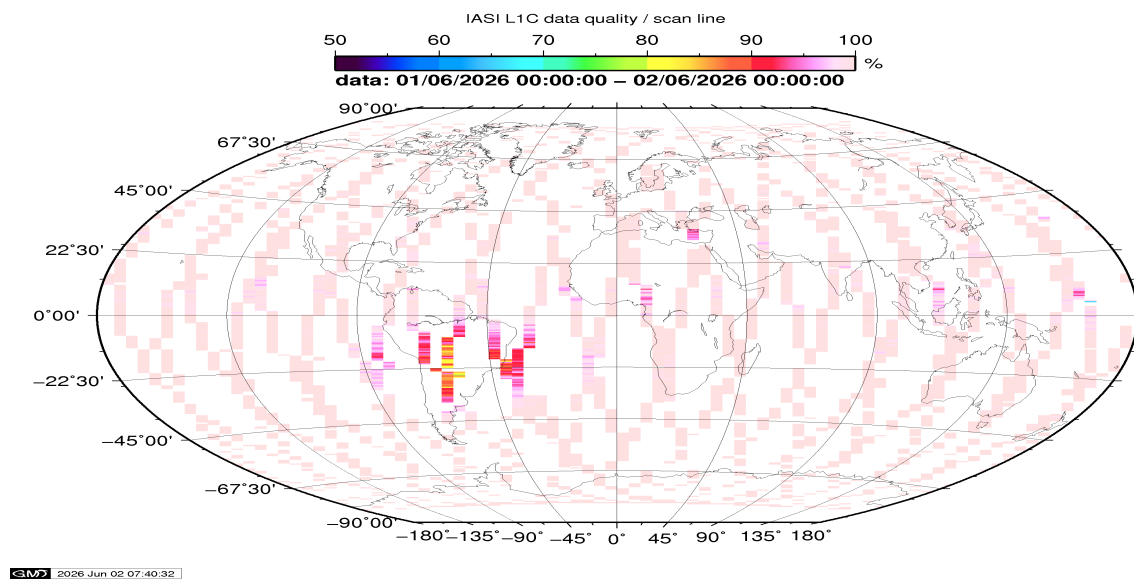


Figure 1: L1C data quality

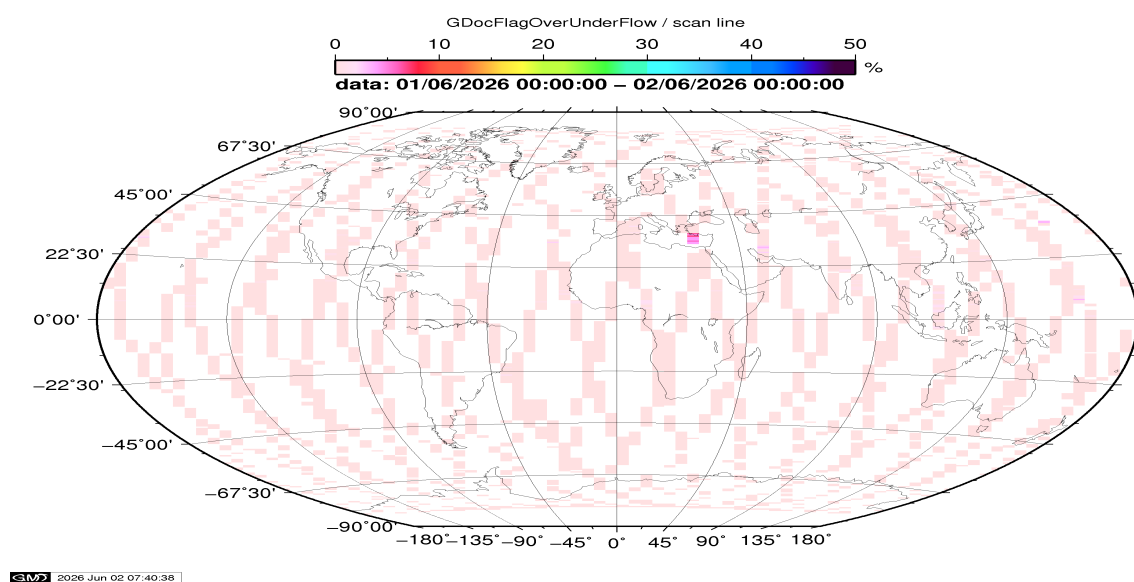


Figure 2: Flag of Over and Under Flows

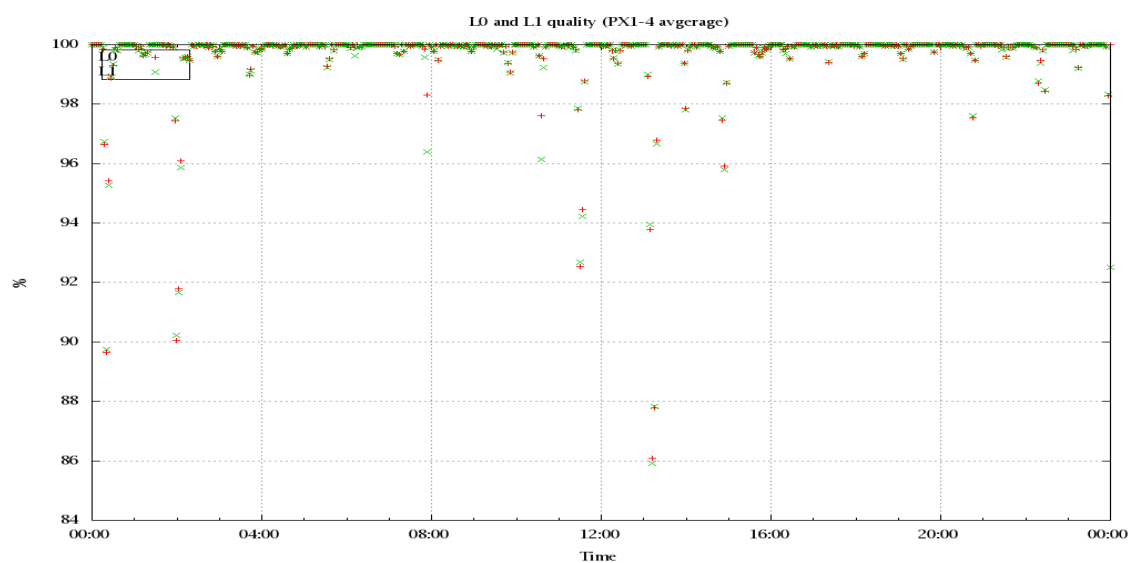


Figure 3: Level 0 and 1C overall quality

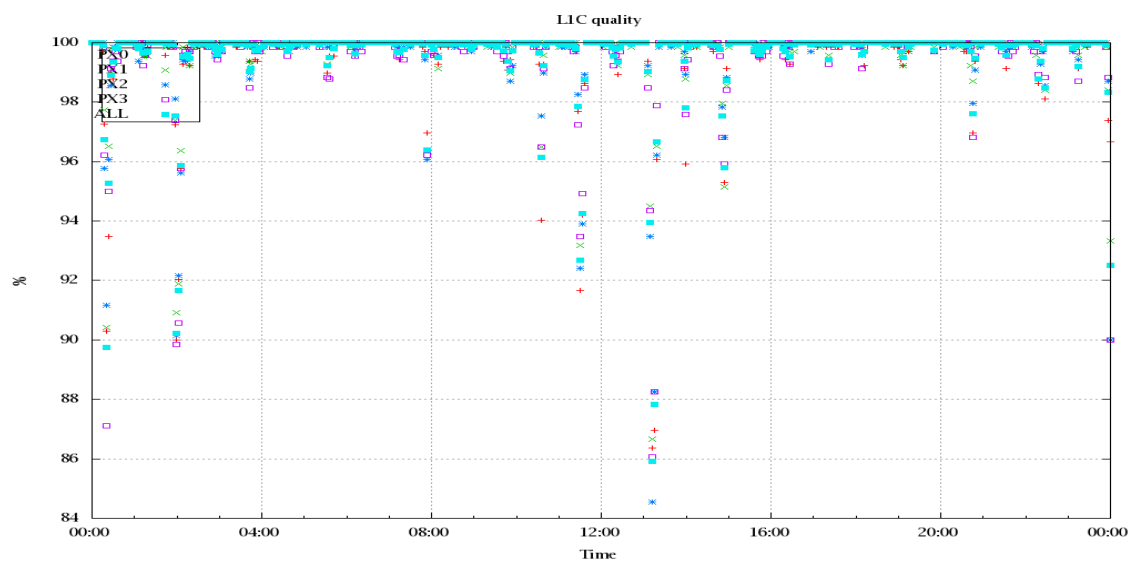


Figure 4: Level 1C quality

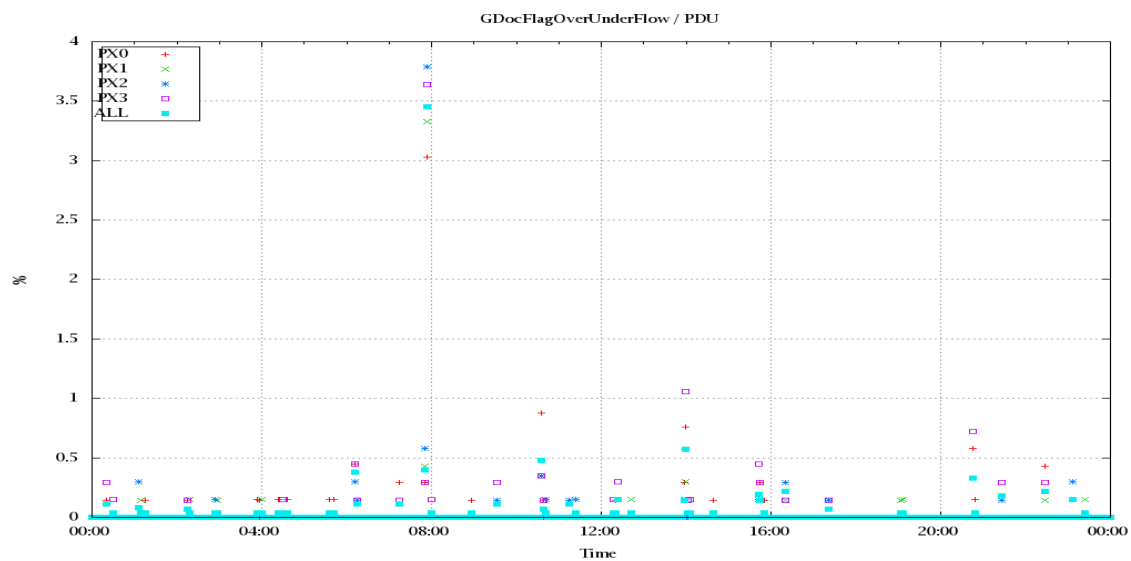


Figure 5: Timeseries of flag of Over and Under Flows

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.

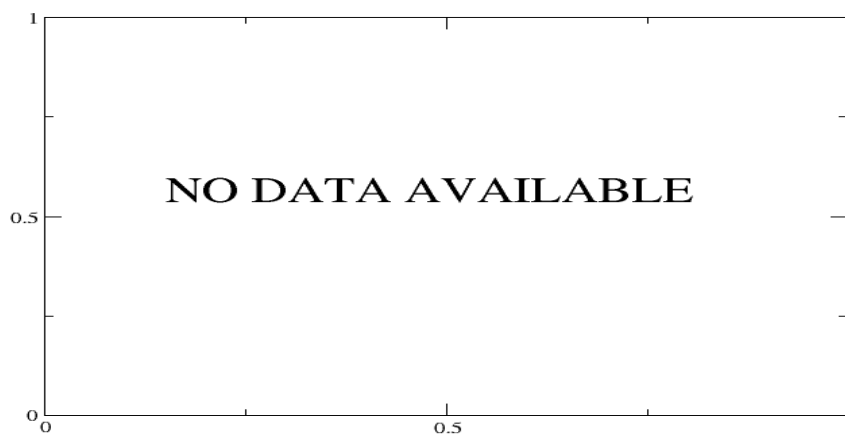


Figure 6: Average Radiance differences: OBS-CAL

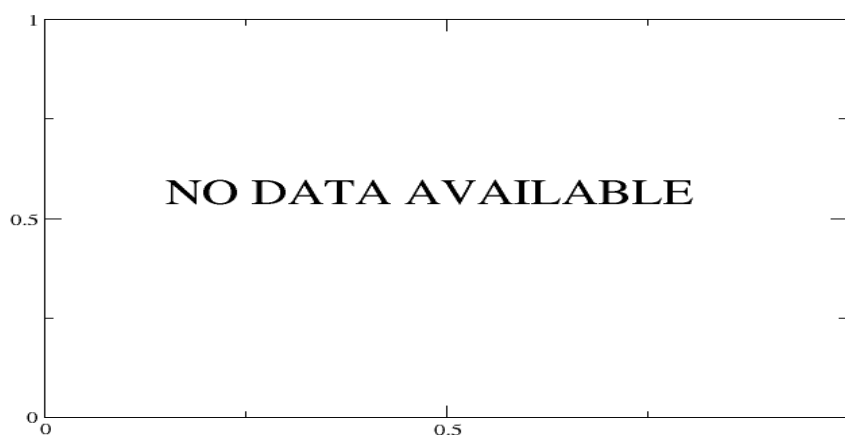


Figure 7: Standard Deviation of Radiance differences



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

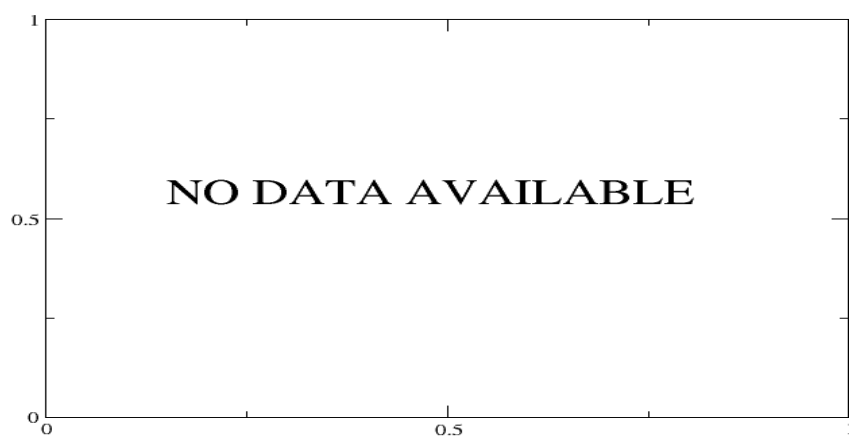


Figure 14: Radiance Anomaly in BT: CO2 14



Figure 15: Radiance Anomaly in BT: CO2 4.3



Figure 16: Radiance Anomaly in BT: O3