

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

IASI monitoring team

22/07/2026 00:00:00 - 23/07/2026 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 22/07/2026 00:00:00 - 23/07/2026 00:00:00 .

The monitoring data are extracted on PDU basis.

2 Data quantity 22/07/2026 00:00:00 - 23/07/2026 00:00:00

Product Type	Number	Action
L0 HKTM PDUs	477	-
L0 IASI PDUs	477	-
L1 ENG PDUs	476	-
L1 ENG distinct GEPSGranule	475	-
L1 DPX PDUs (RM: IASI-HIRS)	0	e
L1 DPS Files (RM: OBS-CAL NWP based)	476	-

Table 1: Data quantity

APID	Seq from	Seq to	Time from	Time to
PX1 (130)	13149	13155	20260722073143.097	20260722073145.909
PX1 (130)	5887	9378	20260722081217.015	20260722082747.408
PX2 (135)	13149	13155	20260722073143.097	20260722073145.909
PX2 (135)	5887	9378	20260722081217.015	20260722082747.408
PX3 (140)	13149	13155	20260722073143.097	20260722073145.909
PX3 (140)	5886	9378	20260722081216.800	20260722082747.408
PX4 (145)	13149	13154	20260722073143.097	20260722073145.690
PX4 (145)	5886	9378	20260722081216.800	20260722082747.408
IMG (150)	9433	9442	20260722073143.097	20260722073145.690
IMG (150)	3390	7345	20260722081216.800	20260722082747.190
VER (160)	7646	7650	20260722073143.097	20260722073151.097
VER (160)	9169	9750	20260722081215.070	20260722082751.084
VER (160)	16379	0	20260722112431.065	20260722112439.065
VER (160)	0	16380	20260722112439.065	20260722112439.065
VER (160)	-1	1	20260722112439.065	20260722112447.065
VER (160)	16380	0	20260722184127.008	20260722184135.008
VER (160)	1	16381	20260722184135.008	20260722184135.008
VER (160)	-1	2	20260722184135.008	20260722184143.008
AUX (180)	11358	11360	20260722073135.522	20260722073151.530

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Table 2 – continued from previous page

APID	Seq from	Seq to	Time from	Time to
AUX (180)	11663	11780	20260722081215.503	20260722082751.514

Table 2: L0 data gaps

3 Instrument modes

Time	Transition from	Transition to
22/07/2026 00:00:00	-	Normal operation

Table 3: Instrument modes

4 L0 and L1 Data Quality

Flag	Value	Action
L0 IASI PDUs	477	-
L1 ENG PDUs	476	-
L1 ENG distinct GEPSGranule	475	-
GQisFlagQual set (PX1)	99.65 %	-
GQisFlagQual set (PX2)	99.67 %	-
GQisFlagQual set (PX3)	99.68 %	-
GQisFlagQual set (PX4)	99.61 %	-
GQisFlagQual set (all)	99.65 %	-

Table 4: Quality flags

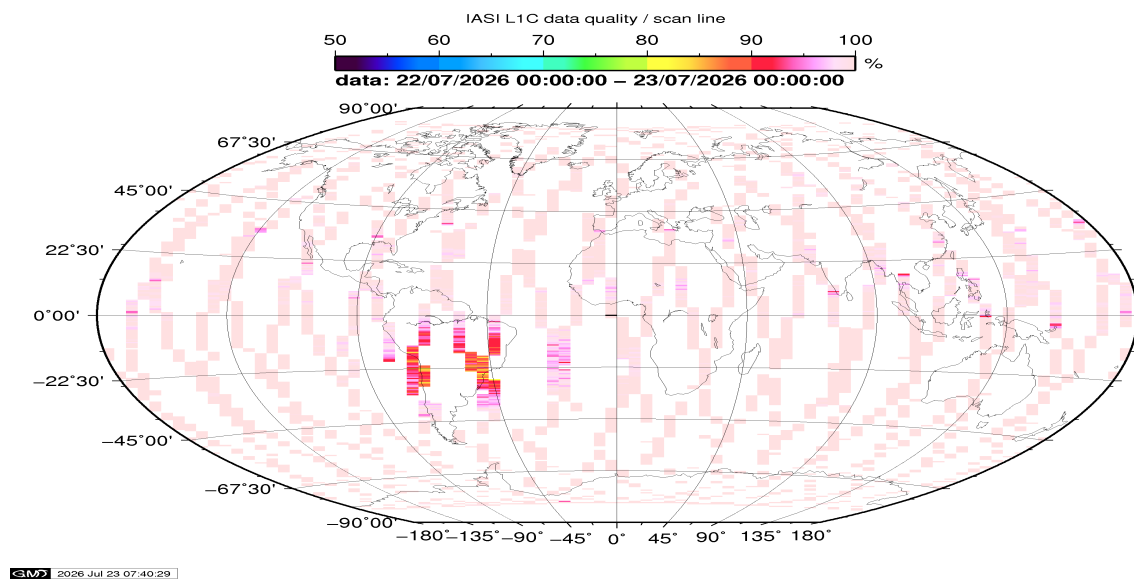


Figure 1: L1C data quality

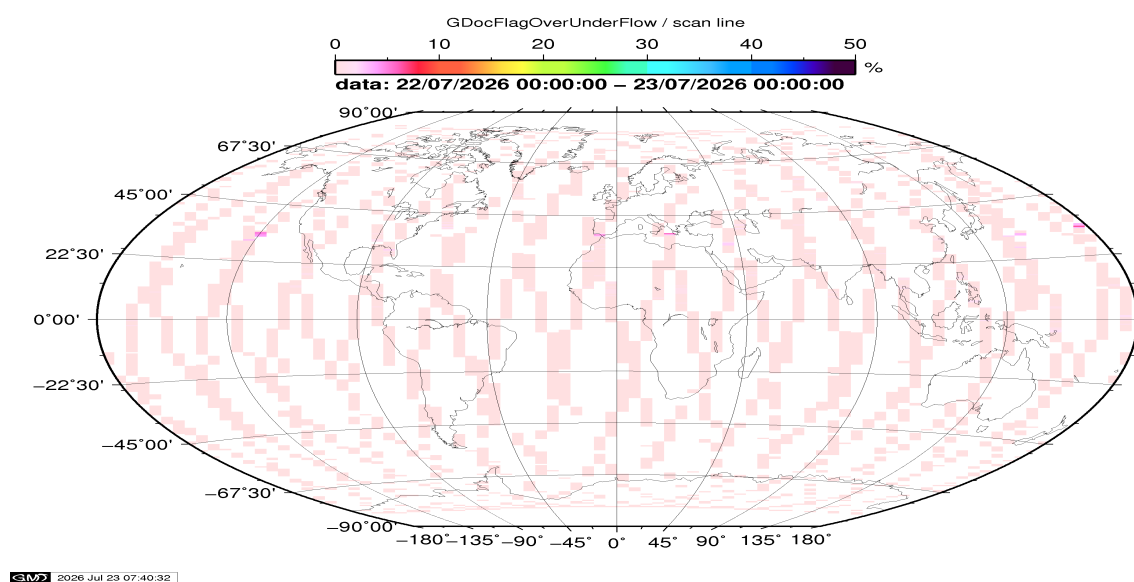


Figure 2: Flag of Over and Under Flows

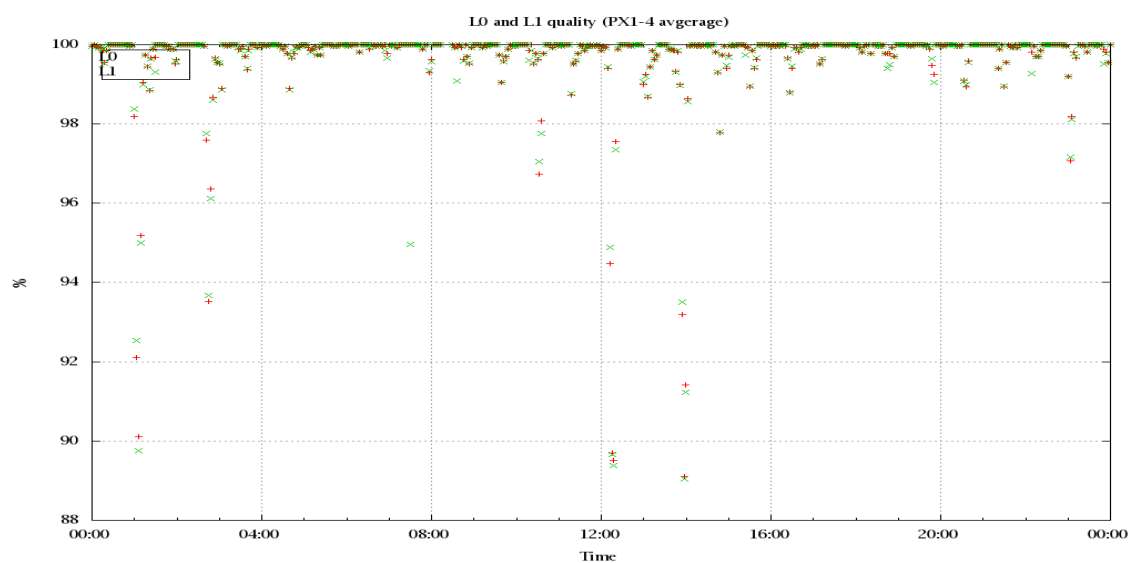


Figure 3: Level 0 and 1C overall quality

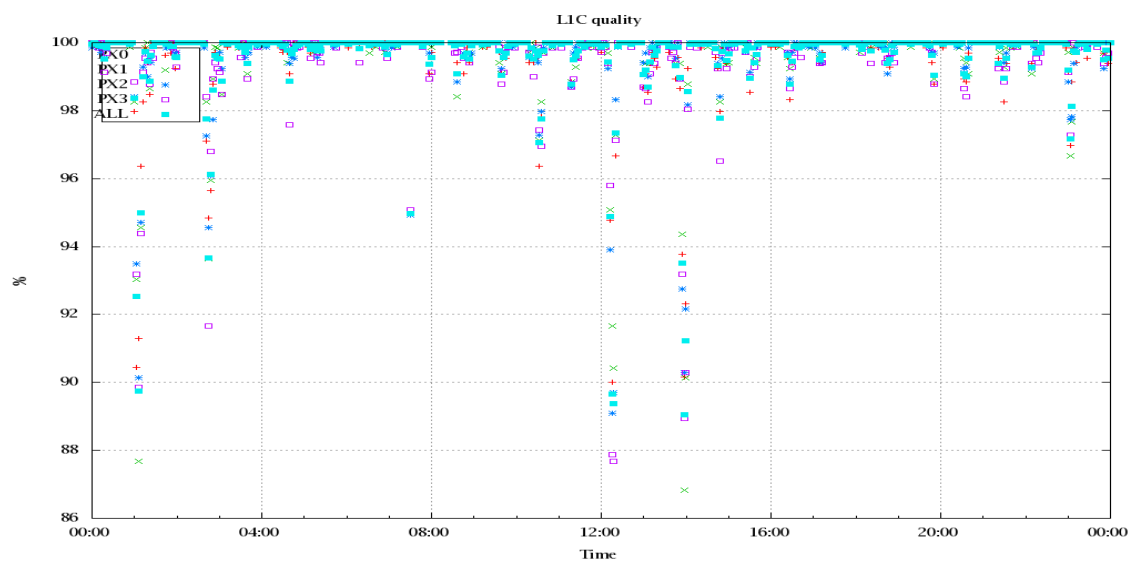


Figure 4: Level 1C quality

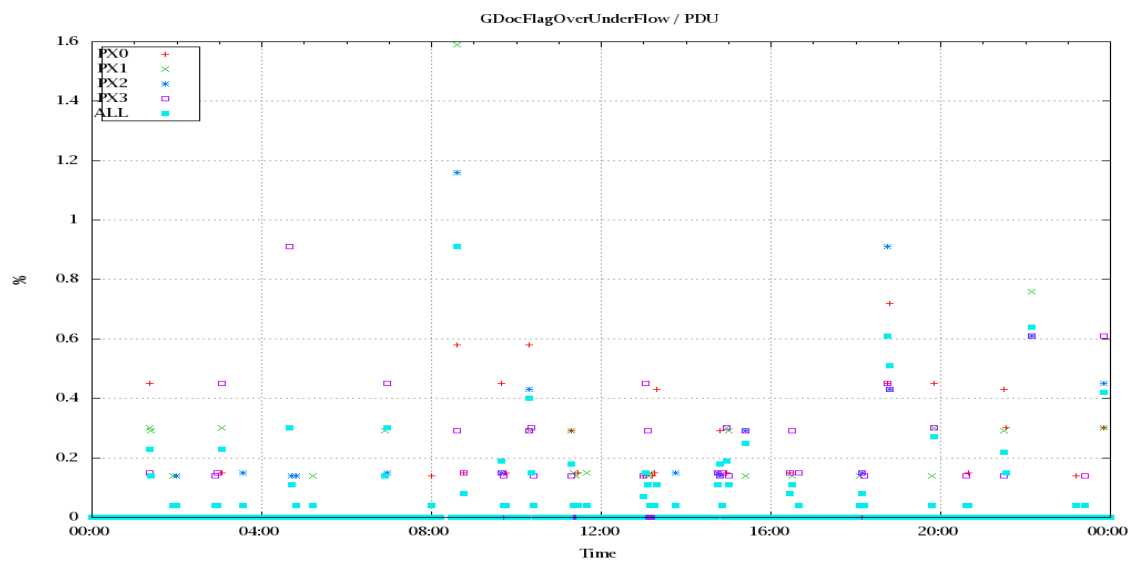


Figure 5: Timeseries of flag of Over and Under Flows

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.

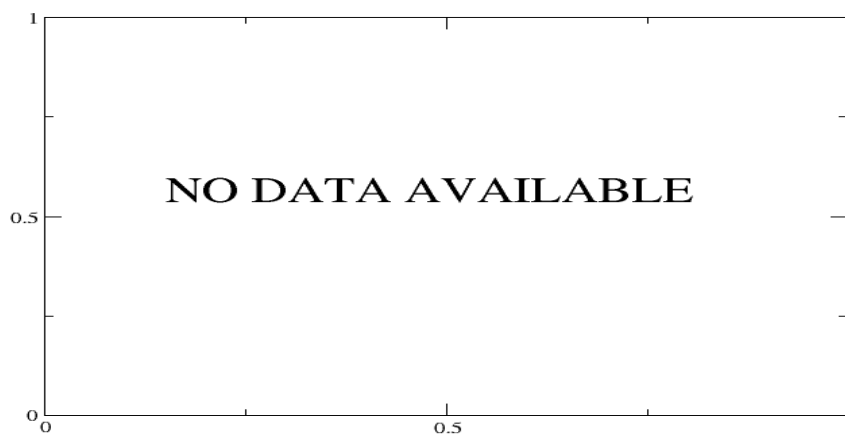


Figure 6: Average Radiance differences: OBS-CAL

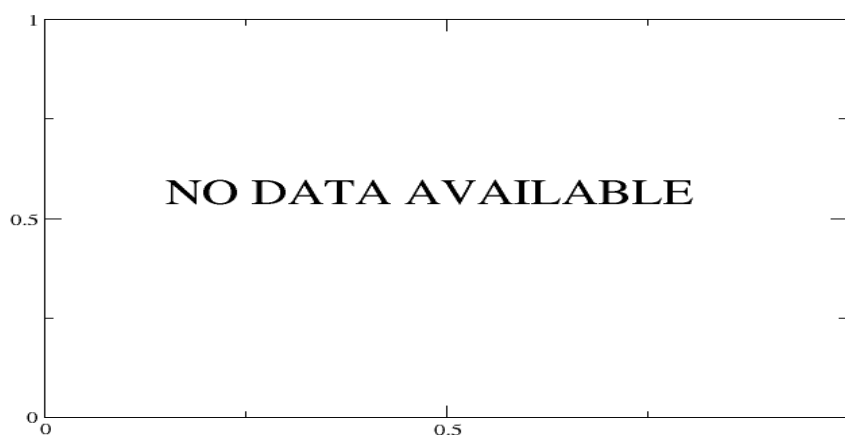


Figure 7: Standard Deviation of Radiance differences



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

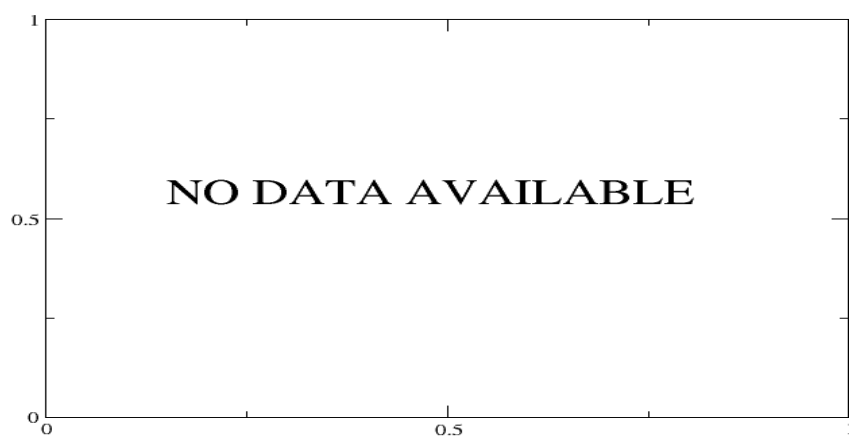


Figure 14: Radiance Anomaly in BT: CO2 14



Figure 15: Radiance Anomaly in BT: CO2 4.3



Figure 16: Radiance Anomaly in BT: O3