

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

IASI monitoring team

22/09/2026 00:00:00 - 23/09/2026 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 22/09/2026 00:00:00 - 23/09/2026 00:00:00 .

The monitoring data are extracted on PDU basis.

2 Data quantity 22/09/2026 00:00:00 - 23/09/2026 00:00:00

Product Type	Number	Action
L0 HKTM PDUs	480	-
L0 IASI PDUs	480	-
L1 ENG PDUs	478	-
L1 ENG distinct GEPSGranule	479	-
L1 DPX PDUs (RM: IASI-HIRS)	0	e
L1 DPS Files (RM: OBS-CAL NWP based)	478	-

Table 1: Data quantity

APID	Seq from	Seq to	Time from	Time to
PX1 (130)	15118	16226	20260922072031.284	20260922072526.881
PX1 (130)	7857	8965	20260922080105.456	20260922080601.014
PX1 (130)	9141	9169	20260922080646.636	20260922080654.202
PX1 (130)	9177	9179	20260922080657.448	20260922080657.878
PX1 (130)	9184	9186	20260922080658.960	20260922080659.393
PX1 (130)	9200	9202	20260922080702.421	20260922080702.850
PX1 (130)	9204	9231	20260922080703.284	20260922080710.635
PX2 (135)	15118	16225	20260922072031.284	20260922072526.663
PX2 (135)	7857	8965	20260922080105.456	20260922080601.014
PX2 (135)	9140	9169	20260922080646.421	20260922080654.202
PX2 (135)	9186	9188	20260922080659.393	20260922080659.827
PX2 (135)	9193	9195	20260922080700.905	20260922080701.339
PX2 (135)	9204	9231	20260922080703.284	20260922080710.635
PX3 (140)	15118	16225	20260922072031.284	20260922072526.663
PX3 (140)	7857	8965	20260922080105.456	20260922080601.014
PX3 (140)	9140	9169	20260922080646.421	20260922080654.202
PX3 (140)	9179	9181	20260922080657.878	20260922080658.311
PX3 (140)	9186	9188	20260922080659.393	20260922080659.827
PX3 (140)	9202	9204	20260922080702.850	20260922080703.284

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Table 2 – continued from previous page

APID	Seq from	Seq to	Time from	Time to
PX3 (140)	9204	9231	20260922080703.284	20260922080710.635
PX4 (145)	15118	16225	20260922072031.284	20260922072526.663
PX4 (145)	7857	8965	20260922080105.456	20260922080601.014
PX4 (145)	9140	9169	20260922080646.421	20260922080654.202
PX4 (145)	9195	9197	20260922080701.339	20260922080701.772
PX4 (145)	9204	9231	20260922080703.284	20260922080710.635
IMG (150)	9131	10386	20260922072031.284	20260922072526.663
IMG (150)	3089	4342	20260922080105.241	20260922080559.718
IMG (150)	4541	4574	20260922080646.421	20260922080654.202
IMG (150)	4590	4592	20260922080658.311	20260922080658.745
IMG (150)	4592	4594	20260922080658.745	20260922080659.175
IMG (150)	4597	4599	20260922080659.827	20260922080700.257
IMG (150)	4599	4601	20260922080700.257	20260922080700.690
IMG (150)	4606	4608	20260922080701.772	20260922080702.202
IMG (150)	4613	4644	20260922080703.284	20260922080710.635
VER (160)	16381	0	20260922013055.315	20260922013103.315
VER (160)	2	16382	20260922013103.315	20260922013103.315
VER (160)	-1	3	20260922013103.315	20260922013111.315
VER (160)	13102	13288	20260922072023.284	20260922072527.311
VER (160)	14627	14810	20260922080103.292	20260922080105.456
VER (160)	14837	14843	20260922080639.284	20260922080655.284
VER (160)	14847	14853	20260922080655.284	20260922080711.284
VER (160)	16382	0	20260922084751.296	20260922084759.296
VER (160)	3	16383	20260922084759.296	20260922084759.296
VER (160)	-1	4	20260922084759.296	20260922084807.292
VER (160)	16379	0	20260922232135.215	20260922232143.215
VER (160)	0	16380	20260922232143.215	20260922232143.215
VER (160)	-1	1	20260922232143.215	20260922232151.215
AUX (180)	2598	2636	20260922072023.718	20260922072527.745
AUX (180)	2903	2940	20260922080103.726	20260922080559.718
AUX (180)	2945	2947	20260922080639.718	20260922080655.718
AUX (180)	2947	2949	20260922080655.718	20260922080711.718

Table 2: L0 data gaps

3 Instrument modes

Time	Transition from	Transition to
22/09/2026 00:00:08	-	Normal operation

Table 3: Instrument modes

4 L0 and L1 Data Quality

Flag	Value	Action
L0 IASI PDUs	480	-
L1 ENG PDUs	478	-
L1 ENG distinct GEPSGranule	479	-
GQisFlagQual set (PX1)	99.61 %	-
GQisFlagQual set (PX2)	99.64 %	-
GQisFlagQual set (PX3)	99.63 %	-
GQisFlagQual set (PX4)	99.60 %	-
GQisFlagQual set (all)	99.62 %	-

Table 4: Quality flags

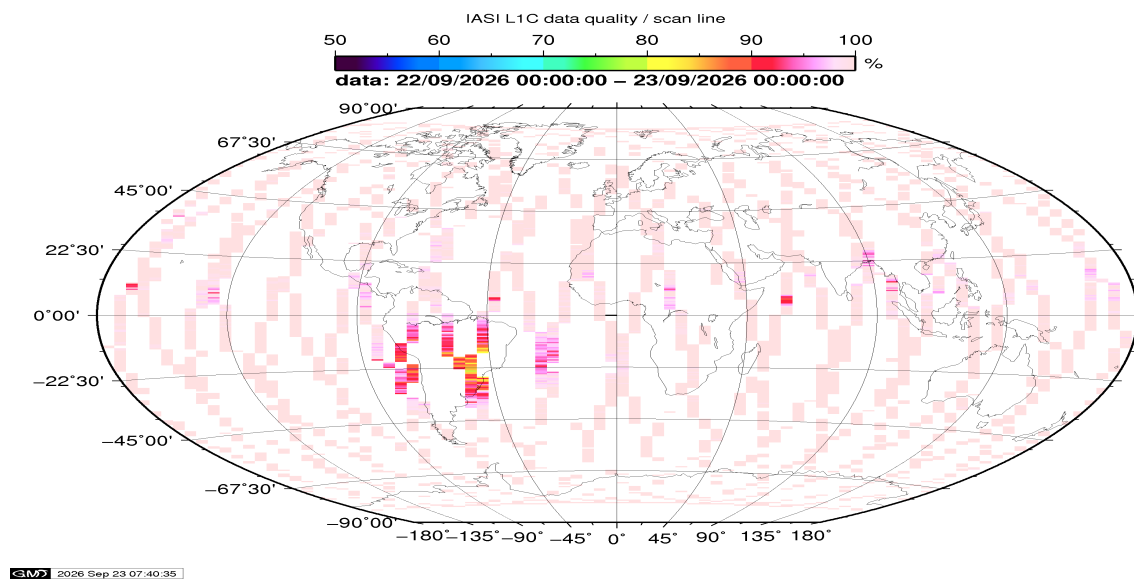


Figure 1: L1C data quality

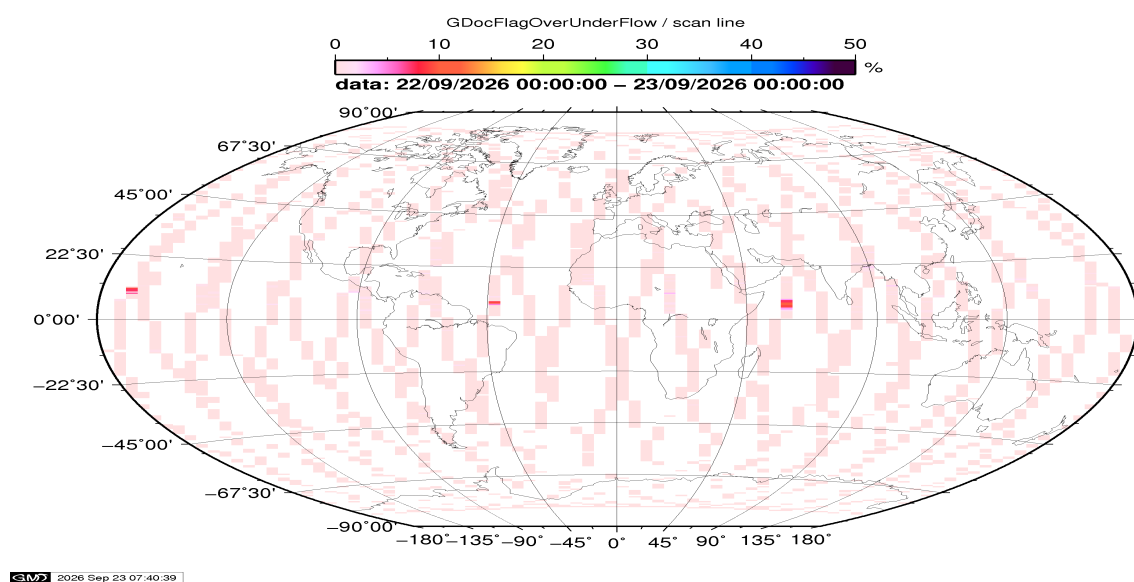


Figure 2: Flag of Over and Under Flows

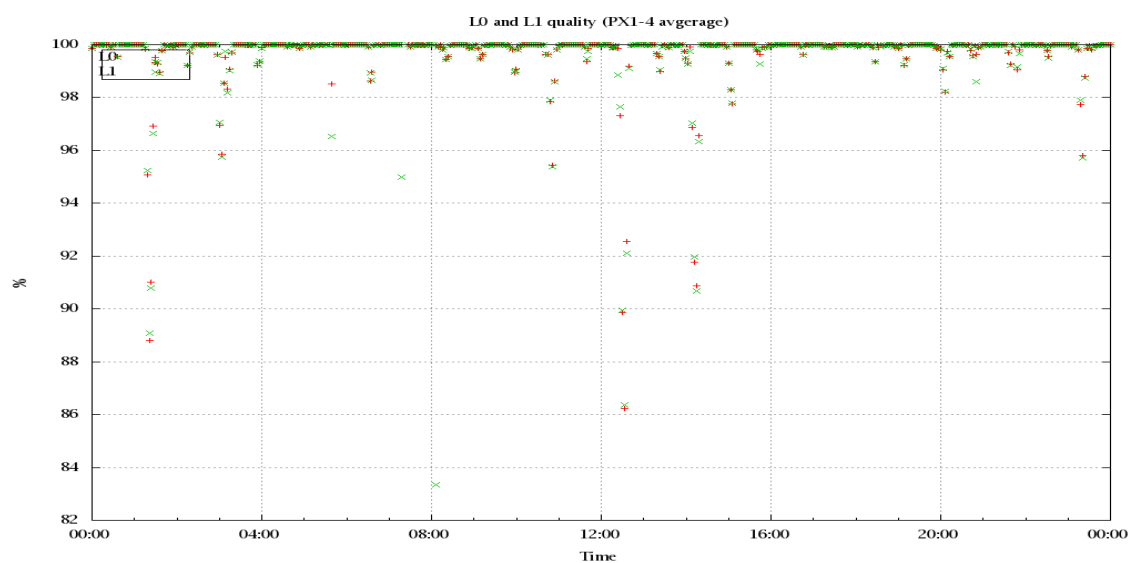


Figure 3: Level 0 and 1C overall quality

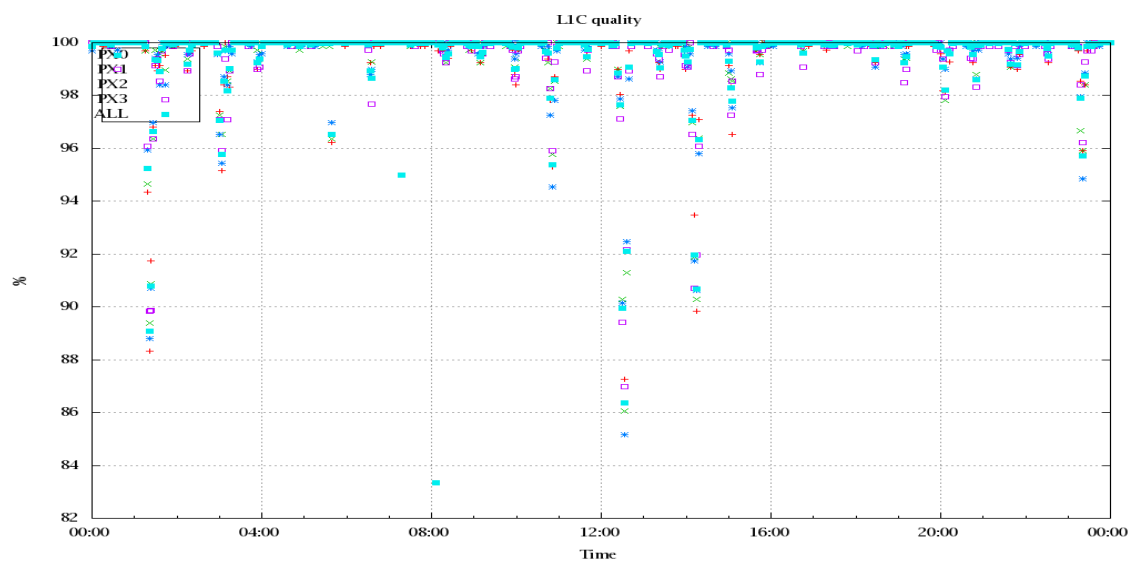


Figure 4: Level 1C quality

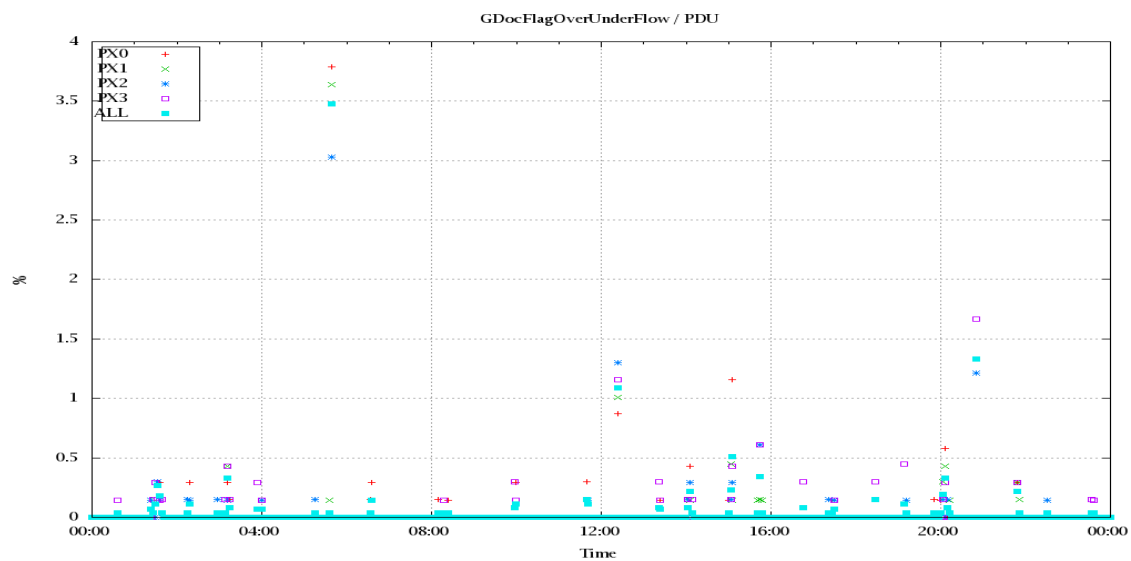


Figure 5: Timeseries of flag of Over and Under Flows

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.

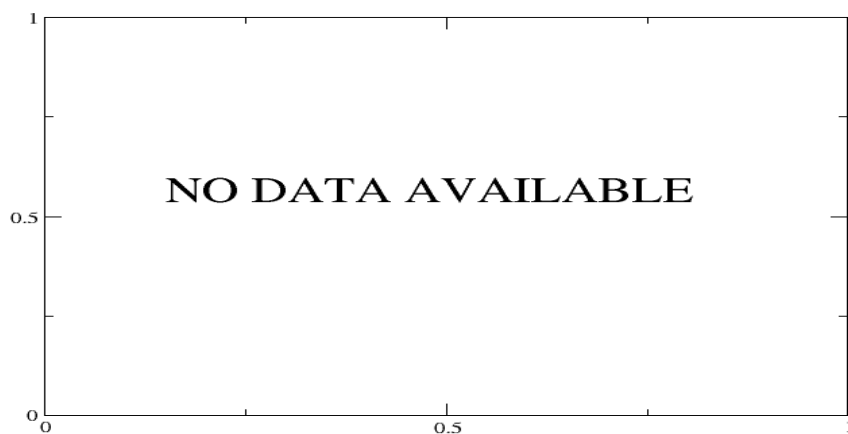


Figure 6: Average Radiance differences: OBS-CAL

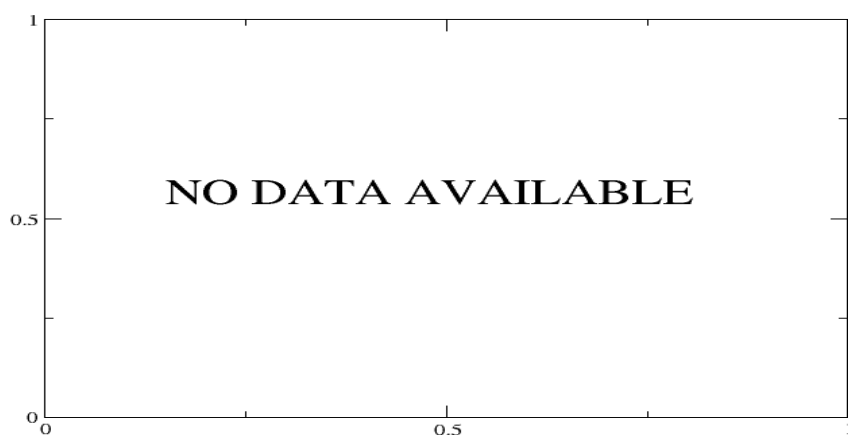


Figure 7: Standard Deviation of Radiance differences



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

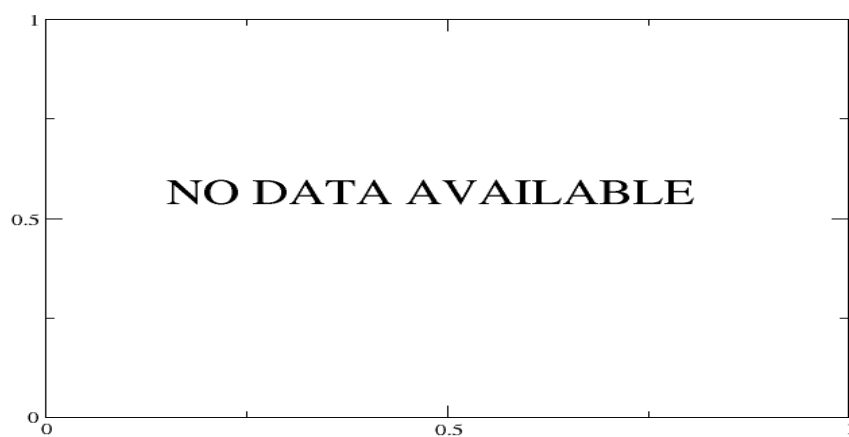


Figure 14: Radiance Anomaly in BT: CO2 14



Figure 15: Radiance Anomaly in BT: CO2 4.3



Figure 16: Radiance Anomaly in BT: O3