

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

IASI monitoring team

03/08/2026 00:00:00 - 04/08/2026 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 03/08/2026 00:00:00 - 04/08/2026 00:00:00 .

The monitoring data are extracted on PDU basis.

2 Data quantity 03/08/2026 00:00:00 - 04/08/2026 00:00:00

Product Type	Number	Action
L0 HKTM PDUs	481	-
L0 IASI PDUs	481	-
L1 ENG PDUs	468	-
L1 ENG distinct GEPSGranule	444	a
L1 DPX PDUs (RM: IASI-HIRS)	0	e
L1 DPS Files (RM: OBS-CAL NWP based)	468	-

Table 1: Data quantity

APID	Seq from	Seq to	Time from	Time to
PX1 (130)	-	-	-	-
PX2 (135)	-	-	-	-
PX3 (140)	-	-	-	-
PX4 (145)	-	-	-	-
IMG (150)	-	-	-	-
VER (160)	16380	0	20260803002749.623	20260803002757.623
VER (160)	1	16381	20260803002757.623	20260803002757.623
VER (160)	-1	2	20260803002757.623	20260803002805.623
VER (160)	16381	0	20260803080709.607	20260803080717.607
VER (160)	2	16382	20260803080717.607	20260803080717.607
VER (160)	-1	3	20260803080717.607	20260803080725.607
VER (160)	16380	0	20260803154509.337	20260803154517.337
VER (160)	1	16381	20260803154517.337	20260803154517.337
VER (160)	-1	2	20260803154517.337	20260803154525.337
VER (160)	16379	0	20260803232245.501	20260803232253.501
VER (160)	0	16380	20260803232253.501	20260803232253.501
VER (160)	-1	1	20260803232253.501	20260803232301.501
AUX (180)	-	-	-	-

Table 2: L0 data gaps

3 Instrument modes

Time	Transition from	Transition to
03/08/2026 00:00:15	-	Normal operation
03/08/2026 00:38:39	Normal operation	Auxiliary ASE synchronised
03/08/2026 00:40:47	Auxiliary ASE synchronised	External calibration
03/08/2026 01:07:27	External calibration	Auxiliary ASE synchronised
03/08/2026 01:09:19	Auxiliary ASE synchronised	Normal operation
03/08/2026 03:58:39	Normal operation	Auxiliary ASE synchronised
03/08/2026 04:00:47	Auxiliary ASE synchronised	External calibration
03/08/2026 04:28:15	External calibration	Auxiliary ASE synchronised
03/08/2026 04:30:23	Auxiliary ASE synchronised	Normal operation
03/08/2026 05:38:23	Normal operation	Auxiliary ASE synchronised
03/08/2026 05:40:31	Auxiliary ASE synchronised	External calibration
03/08/2026 06:08:31	External calibration	Auxiliary ASE synchronised
03/08/2026 06:10:39	Auxiliary ASE synchronised	Normal operation
03/08/2026 07:17:51	Normal operation	Auxiliary ASE synchronised
03/08/2026 07:19:59	Auxiliary ASE synchronised	External calibration
03/08/2026 07:48:31	External calibration	Auxiliary ASE synchronised
03/08/2026 07:50:39	Auxiliary ASE synchronised	Normal operation
03/08/2026 08:57:19	Normal operation	Auxiliary ASE synchronised
03/08/2026 08:59:27	Auxiliary ASE synchronised	External calibration
03/08/2026 09:28:31	External calibration	Auxiliary ASE synchronised
03/08/2026 09:30:23	Auxiliary ASE synchronised	Normal operation
03/08/2026 10:36:31	Normal operation	Auxiliary ASE synchronised
03/08/2026 10:38:39	Auxiliary ASE synchronised	External calibration
03/08/2026 11:07:59	External calibration	Auxiliary ASE synchronised
03/08/2026 11:10:07	Auxiliary ASE synchronised	Normal operation
03/08/2026 12:15:43	Normal operation	Auxiliary ASE synchronised
03/08/2026 12:17:51	Auxiliary ASE synchronised	External calibration
03/08/2026 12:47:27	External calibration	Auxiliary ASE synchronised
03/08/2026 12:49:35	Auxiliary ASE synchronised	Normal operation
03/08/2026 13:54:55	Normal operation	Auxiliary ASE synchronised
03/08/2026 13:57:03	Auxiliary ASE synchronised	External calibration
03/08/2026 14:26:39	External calibration	Auxiliary ASE synchronised
03/08/2026 14:28:47	Auxiliary ASE synchronised	Normal operation
03/08/2026 15:34:23	Normal operation	Auxiliary ASE synchronised
03/08/2026 15:36:15	Auxiliary ASE synchronised	External calibration
03/08/2026 16:06:07	External calibration	Auxiliary ASE synchronised
03/08/2026 16:07:59	Auxiliary ASE synchronised	Normal operation
03/08/2026 17:13:51	Normal operation	Auxiliary ASE synchronised
03/08/2026 17:15:43	Auxiliary ASE synchronised	External calibration
03/08/2026 17:45:03	External calibration	Auxiliary ASE synchronised
03/08/2026 17:47:11	Auxiliary ASE synchronised	Normal operation
03/08/2026 18:53:19	Normal operation	Auxiliary ASE synchronised
03/08/2026 18:55:27	Auxiliary ASE synchronised	External calibration
03/08/2026 19:24:31	External calibration	Auxiliary ASE synchronised
03/08/2026 19:26:23	Auxiliary ASE synchronised	Normal operation
03/08/2026 20:33:03	Normal operation	Auxiliary ASE synchronised
03/08/2026 20:35:11	Auxiliary ASE synchronised	External calibration
03/08/2026 21:03:43	External calibration	Auxiliary ASE synchronised
03/08/2026 21:05:51	Auxiliary ASE synchronised	Normal operation
03/08/2026 22:17:19	Normal operation	Auxiliary ASE synchronised
03/08/2026 22:19:27	Auxiliary ASE synchronised	External calibration
03/08/2026 22:43:11	External calibration	Auxiliary ASE synchronised
03/08/2026 22:45:19	Auxiliary ASE synchronised	Normal operation

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Table 3 – continued from previous page

Time	Transition from	Transition to
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Table 3: Instrument modes

4 L0 and L1 Data Quality

Flag	Value	Action
L0 IASI PDUs	481	-
L1 ENG PDUs	468	-
L1 ENG distinct GEPSGranule	444	a
GQisFlagQual set (PX1)	71.18 %	-
GQisFlagQual set (PX2)	71.21 %	-
GQisFlagQual set (PX3)	71.20 %	-
GQisFlagQual set (PX4)	71.16 %	-
GQisFlagQual set (all)	71.19 %	-

Table 4: Quality flags

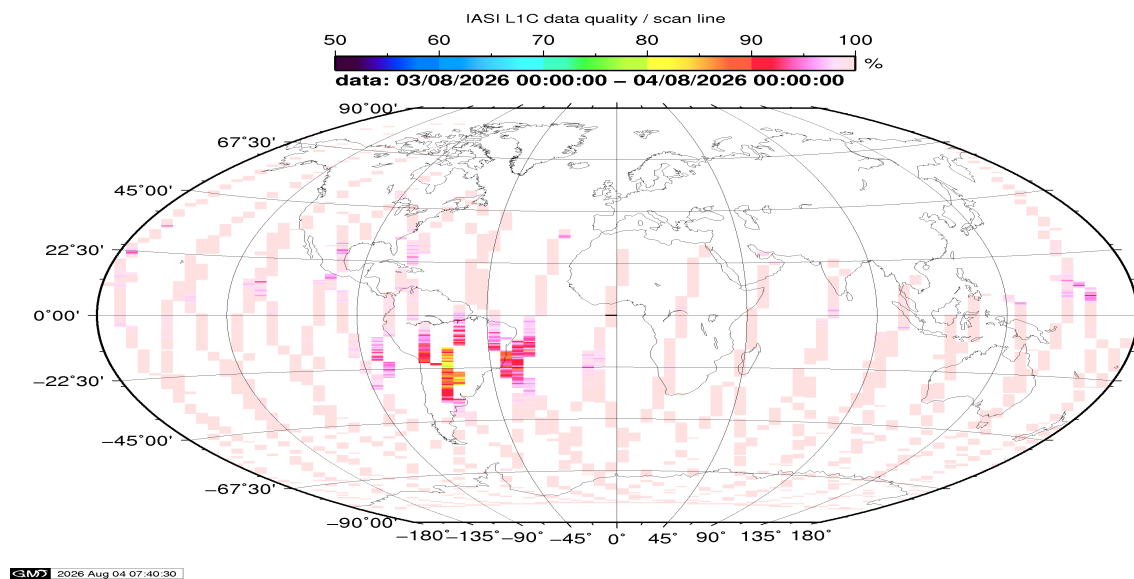


Figure 1: L1C data quality

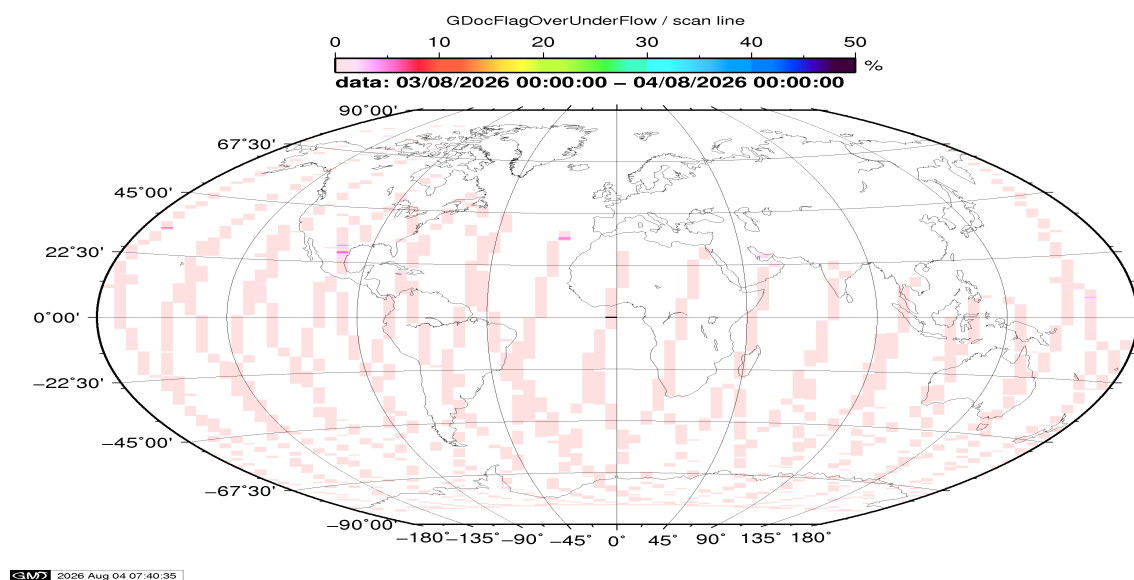


Figure 2: Flag of Over and Under Flows

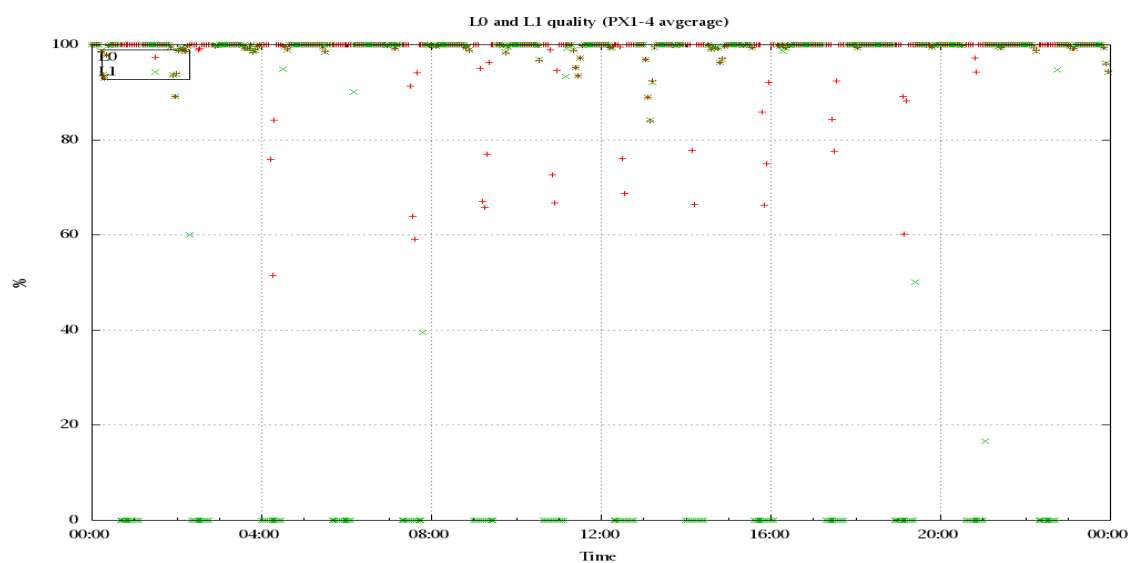


Figure 3: Level 0 and 1C overall quality

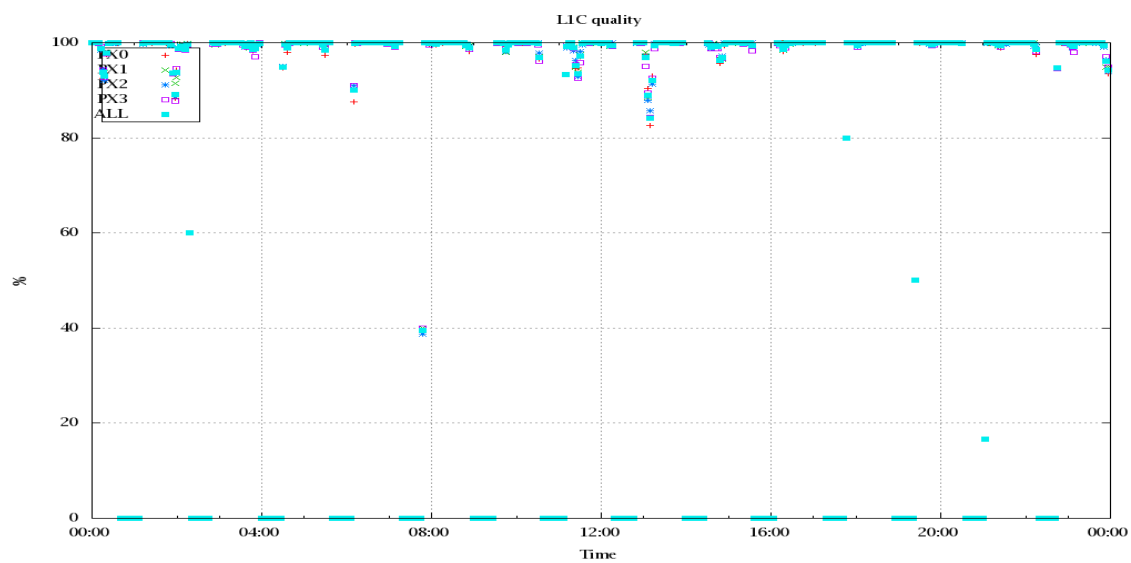


Figure 4: Level 1C quality

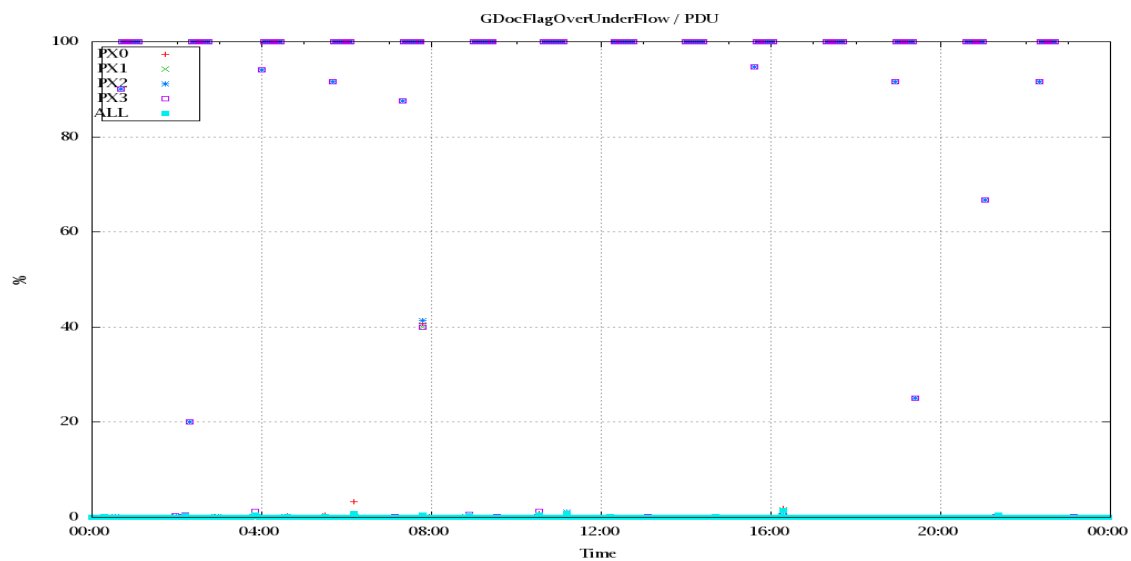


Figure 5: Timeseries of flag of Over and Under Flows

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.

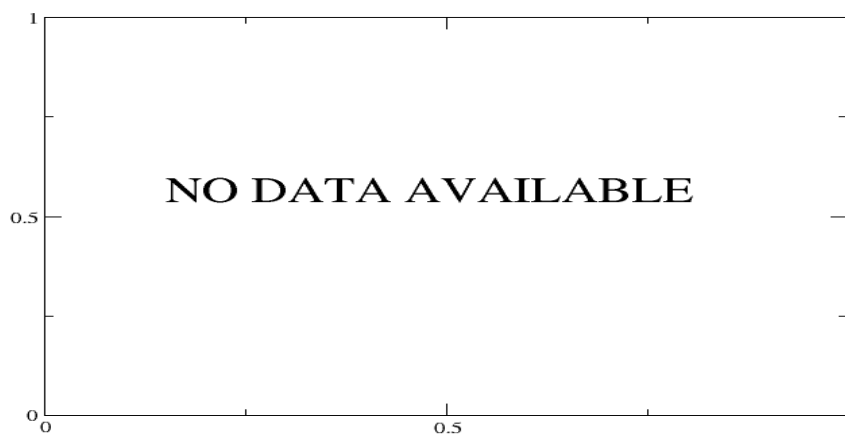


Figure 6: Average Radiance differences: OBS-CAL

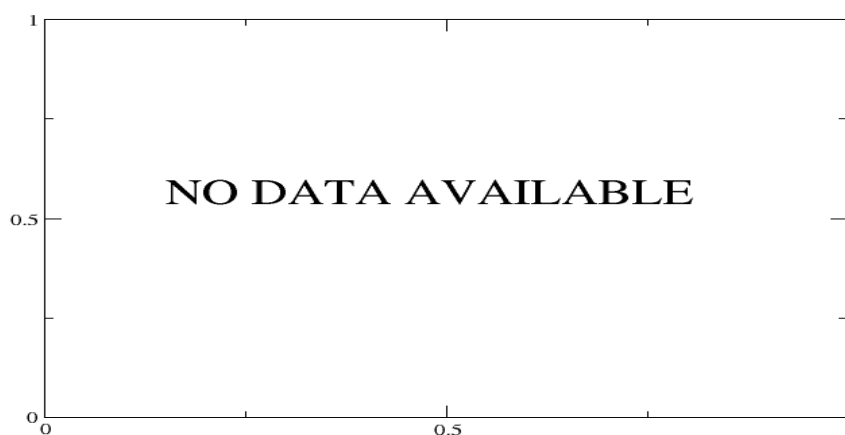


Figure 7: Standard Deviation of Radiance differences



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

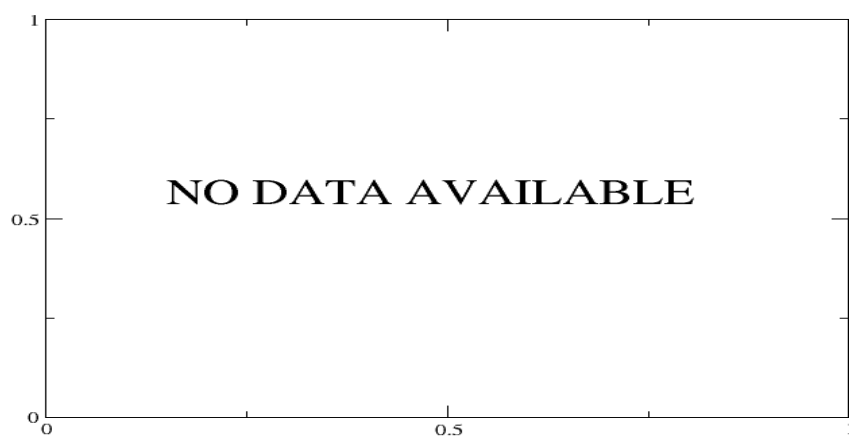


Figure 12: Radiance Anomaly in BT: IASI Band 2



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