

# IASI L0 and L1 Daily Monitoring Report **Metop-B**

IASI monitoring team

09/02/2026 00:00:00 - 10/02/2026 00:00:00

## 1 Introduction

This report provides summary monitoring plots and figures from IASI instrument on the Metop-B satellite retrieved from the IASI L0 and L1 ENG product (3 minutes data packet) for 09/02/2026 00:00:00 - 10/02/2026 00:00:00 .

The monitoring data are extracted on PDU basis.

## 2 Data quantity 09/02/2026 00:00:00 - 10/02/2026 00:00:00

Product Type	Number	Action
L0 HKTМ PDUs	480	-
L0 IASI PDUs	480	-
L1 ENG PDUs	480	-
L1 ENG distinct GEPSGranule	474	-
<b>L1 DPX PDUs (RM: IASI-HIRS)</b>	<b>0</b>	<b>e</b>
L1 DPS Files (RM: OBS-CAL NWP based)	480	-

Table 1: Data quantity

APID	Seq from	Seq to	Time from	Time to
PX1 (130)	13480	13690	20260209065356.094	20260209065452.094
PX1 (130)	222	1176	20260209070749.402	20260209071204.100
PX1 (130)	2117	2372	20260209071614.471	20260209071723.225
PX1 (130)	9373	9449	20260209090118.473	20260209090139.446
PX1 (130)	7358	7372	20260209100510.256	20260209100514.799
PX1 (130)	7373	7376	20260209100515.014	20260209100515.663
PX1 (130)	7377	7380	20260209100515.877	20260209100516.526
PX1 (130)	12043	12095	20260209185544.348	20260209185557.106
PX1 (130)	12300	12792	20260209185652.059	20260209185904.164
PX1 (130)	12821	12838	20260209185910.434	20260209185915.621
PX2 (135)	13479	13690	20260209065355.879	20260209065452.094
PX2 (135)	222	1176	20260209070749.402	20260209071204.100
PX2 (135)	2117	2372	20260209071614.471	20260209071723.225
PX2 (135)	9373	9449	20260209090118.473	20260209090139.446
PX2 (135)	7356	7358	20260209100509.823	20260209100510.256
PX2 (135)	7359	7361	20260209100510.475	20260209100512.416
PX2 (135)	7361	7364	20260209100512.416	20260209100513.069
PX2 (135)	7364	7375	20260209100513.069	20260209100515.444
PX2 (135)	7376	7378	20260209100515.663	20260209100516.096

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Table 2 – continued from previous page

APID	Seq from	Seq to	Time from	Time to
PX2 (135)	12043	12095	20260209185544.348	20260209185557.106
PX2 (135)	12300	12792	20260209185652.059	20260209185904.164
PX2 (135)	12821	12838	20260209185910.434	20260209185915.621
PX3 (140)	13479	13690	20260209065355.879	20260209065452.094
PX3 (140)	222	1176	20260209070749.402	20260209071204.100
PX3 (140)	2117	2372	20260209071614.471	20260209071723.225
PX3 (140)	9373	9448	20260209090118.473	20260209090139.227
PX3 (140)	7359	7364	20260209100510.475	20260209100513.069
PX3 (140)	7364	7376	20260209100513.069	20260209100515.663
PX3 (140)	7377	7379	20260209100515.877	20260209100516.311
PX3 (140)	12043	12095	20260209185544.348	20260209185557.106
PX3 (140)	12298	12300	20260209185651.625	20260209185652.059
PX3 (140)	12300	12792	20260209185652.059	20260209185904.164
PX3 (140)	12821	12838	20260209185910.434	20260209185915.621
PX4 (145)	13479	13690	20260209065355.879	20260209065452.094
PX4 (145)	222	1176	20260209070749.402	20260209071204.100
PX4 (145)	2117	2372	20260209071614.471	20260209071723.225
PX4 (145)	9373	9448	20260209090118.473	20260209090139.227
PX4 (145)	7359	7370	20260209100510.475	20260209100514.366
PX4 (145)	7370	7376	20260209100514.366	20260209100515.663
PX4 (145)	7377	7379	20260209100515.877	20260209100516.311
PX4 (145)	7383	7385	20260209100517.174	20260209100517.608
PX4 (145)	12043	12095	20260209185544.348	20260209185557.106
PX4 (145)	12300	12792	20260209185652.059	20260209185904.164
PX4 (145)	12821	12838	20260209185910.434	20260209185915.621
IMG (150)	13779	14018	20260209065355.879	20260209065452.094
IMG (150)	14129	14131	20260209065518.040	20260209065518.469
IMG (150)	937	2019	20260209070749.187	20260209071203.882
IMG (150)	3085	3375	20260209071614.471	20260209071723.010
IMG (150)	13496	13580	20260209090119.555	20260209090139.227
IMG (150)	13392	13394	20260209100509.823	20260209100510.256
IMG (150)	13395	13403	20260209100510.475	20260209100512.850
IMG (150)	13403	13405	20260209100512.850	20260209100513.284
IMG (150)	13405	13411	20260209100513.284	20260209100514.580
IMG (150)	13412	13414	20260209100514.799	20260209100515.229
IMG (150)	13414	13416	20260209100515.229	20260209100515.663
IMG (150)	13417	13419	20260209100515.877	20260209100516.311
IMG (150)	1231	1286	20260209185544.348	20260209185556.891
IMG (150)	1516	1518	20260209185651.196	20260209185651.625
IMG (150)	1519	2076	20260209185651.844	20260209185902.867
IMG (150)	2109	2129	20260209185910.434	20260209185915.406
VER (160)	380	416	20260209065350.473	20260209065454.469
VER (160)	900	1061	20260209070742.484	20260209071206.479
VER (160)	1217	1261	20260209071614.471	20260209071726.467
VER (160)	5160	5171	20260209090118.473	20260209090142.473
VER (160)	7551	7556	20260209100510.475	20260209100518.471
VER (160)	11066	11072	20260209185542.403	20260209185558.403
VER (160)	11106	11188	20260209185646.438	20260209185652.059
VER (160)	11192	11197	20260209185910.434	20260209185918.434
AUX (180)	74	82	20260209065350.903	20260209065454.903
AUX (180)	178	211	20260209070742.917	20260209071206.909
AUX (180)	241	251	20260209071606.905	20260209071726.901
AUX (180)	1030	1033	20260209090118.907	20260209090142.907

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**Table 2 – continued from previous page**

<b>APID</b>	<b>Seq from</b>	<b>Seq to</b>	<b>Time from</b>	<b>Time to</b>
AUX (180)	5488	5490	20260209185542.836	20260209185558.832
AUX (180)	5496	5513	20260209185646.871	20260209185902.867
AUX (180)	5513	5515	20260209185902.867	20260209185918.867

Table 2: L0 data gaps

### 3 Instrument modes

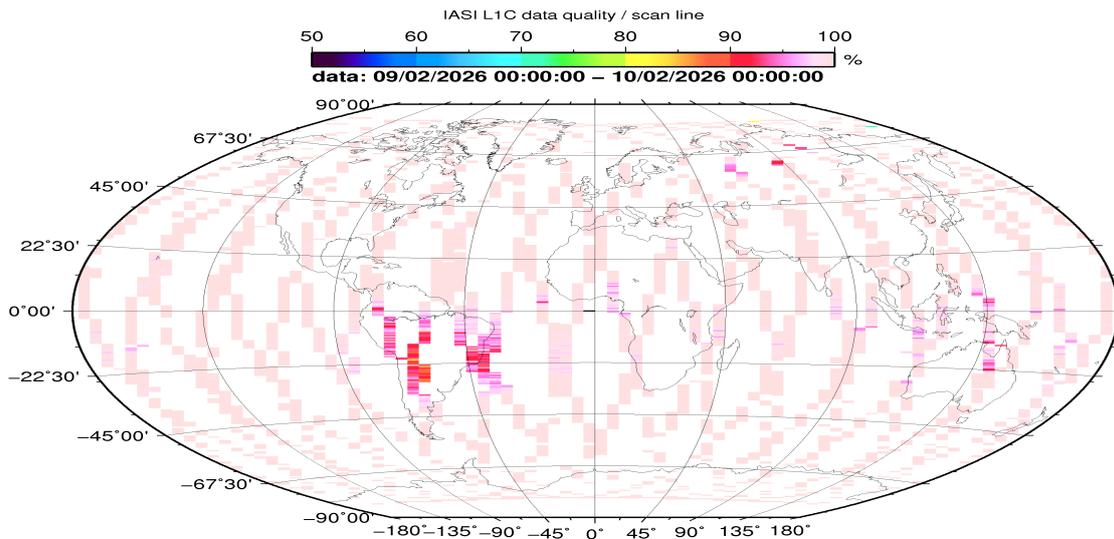
Time	Transition from	Transition to
09/02/2026 00:00:05	-	Normal operation

Table 3: Instrument modes

### 4 L0 and L1 Data Quality

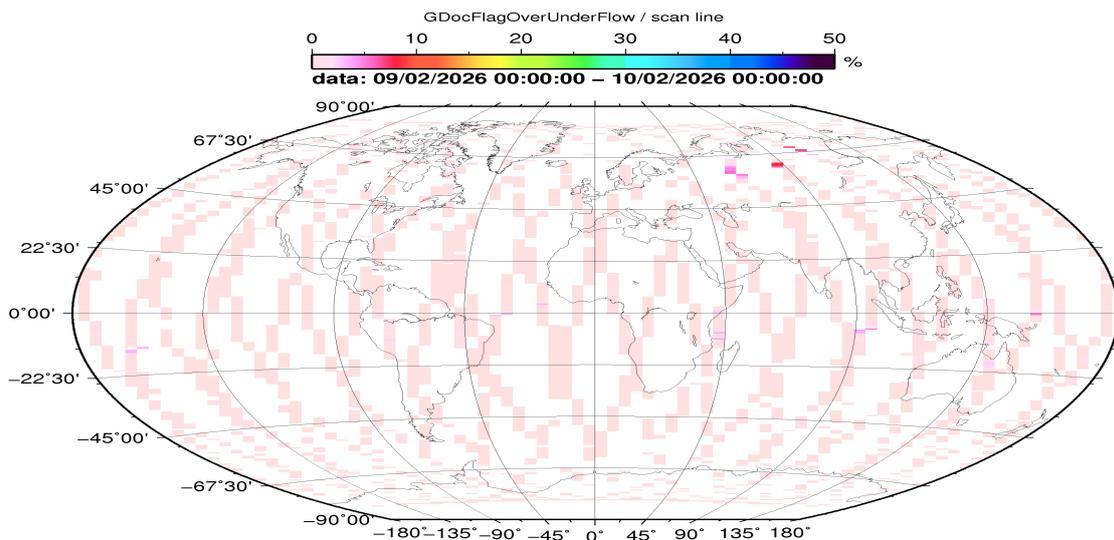
Flag	Value	Action
L0 IASI PDUs	480	-
L1 ENG PDUs	480	-
L1 ENG distinct GEPSGranule	474	-
GQisFlagQual set (PX1)	99.58 %	-
GQisFlagQual set (PX2)	99.65 %	-
GQisFlagQual set (PX3)	99.67 %	-
GQisFlagQual set (PX4)	99.59 %	-
GQisFlagQual set (all)	99.62 %	-

Table 4: Quality flags



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Figure 1: L1C data quality



CM 2026 Feb 10 07:40:32

Figure 2: Flag of Over and Under Flows

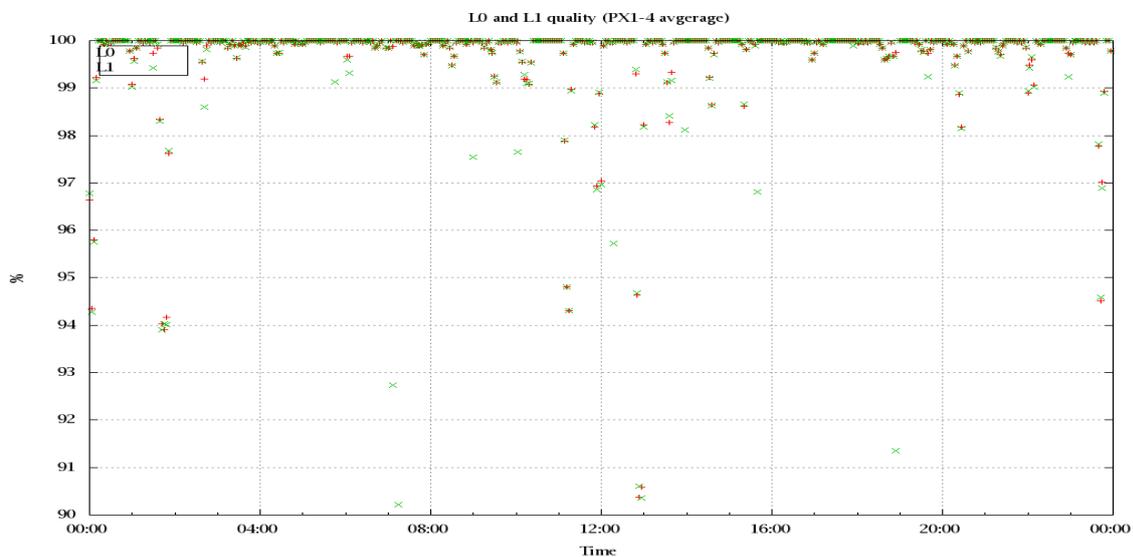


Figure 3: Level 0 and 1C overall quality

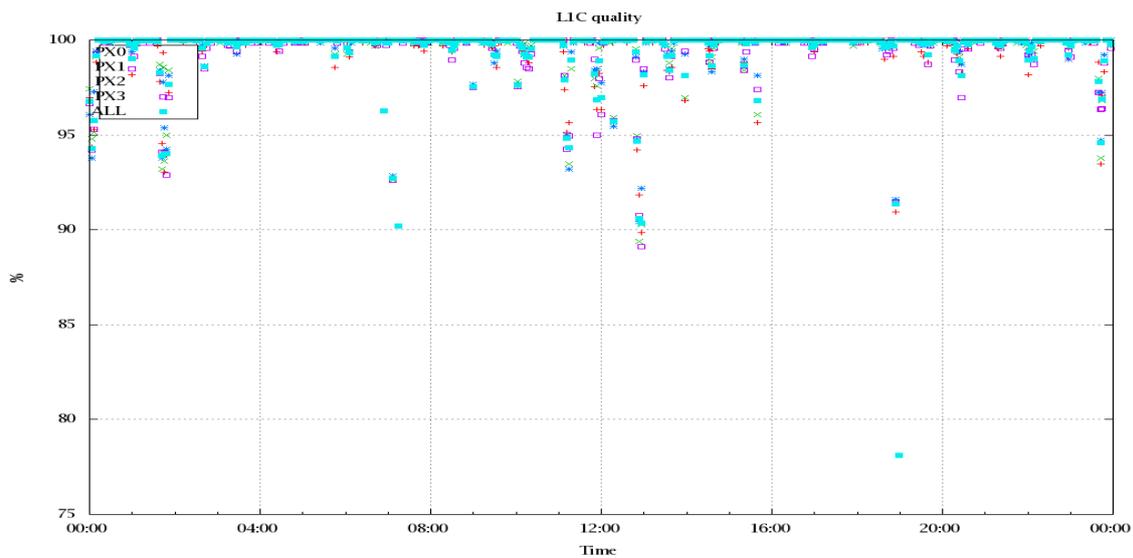


Figure 4: Level 1C quality

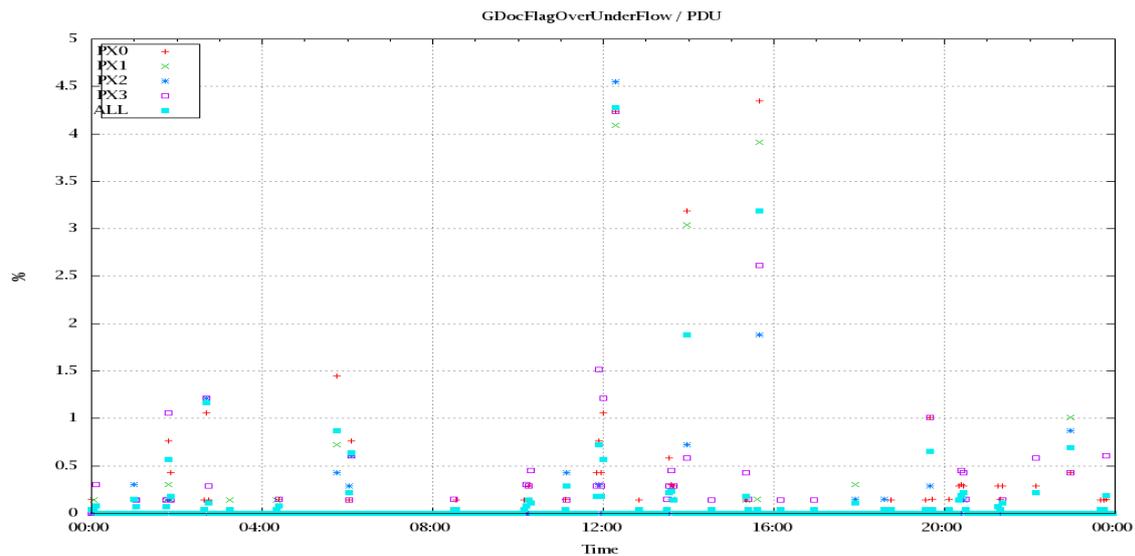


Figure 5: Timeseries of flag of Over and Under Flows

## 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.

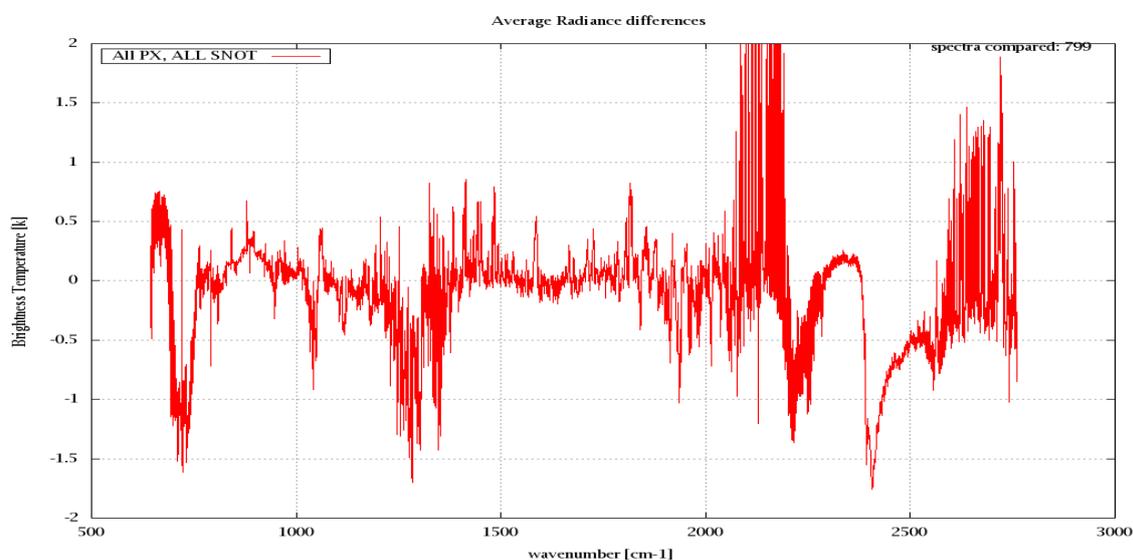


Figure 6: Average Radiance differences: OBS-CAL

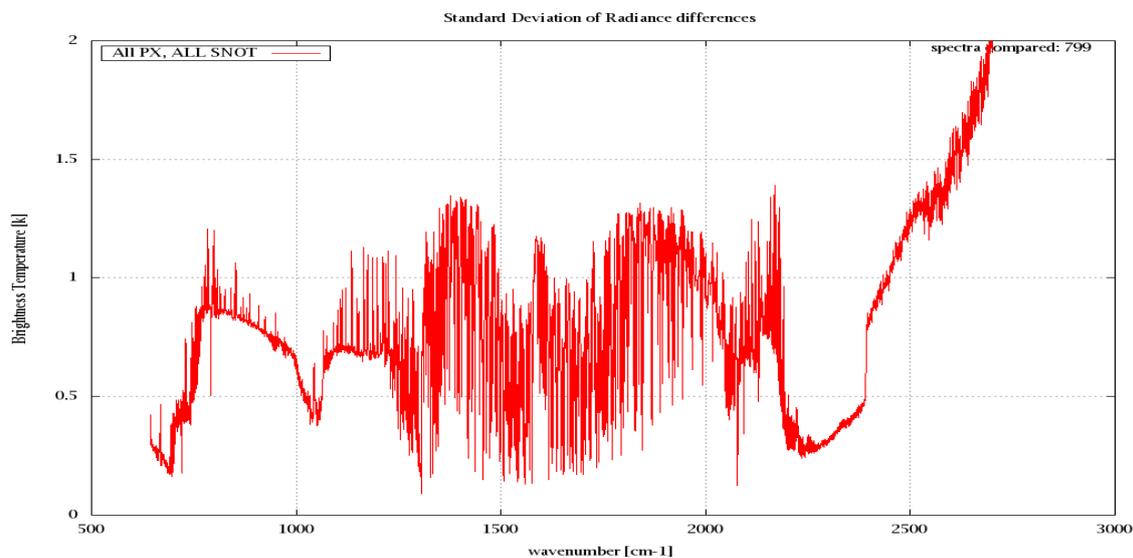


Figure 7: Standard Deviation of Radiance differences

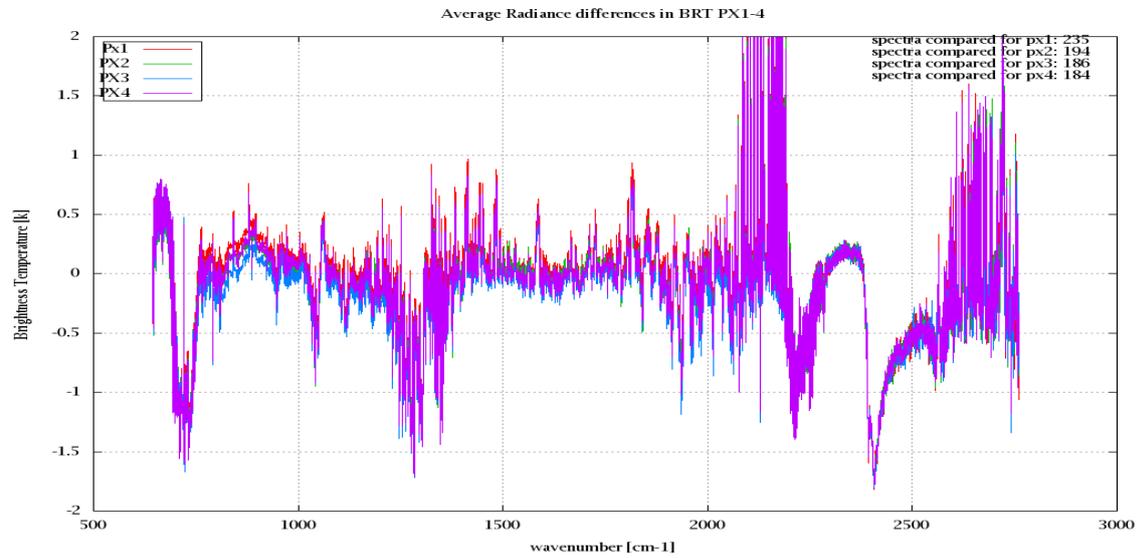


Figure 8: Average Radiance differences: OBS-CAL

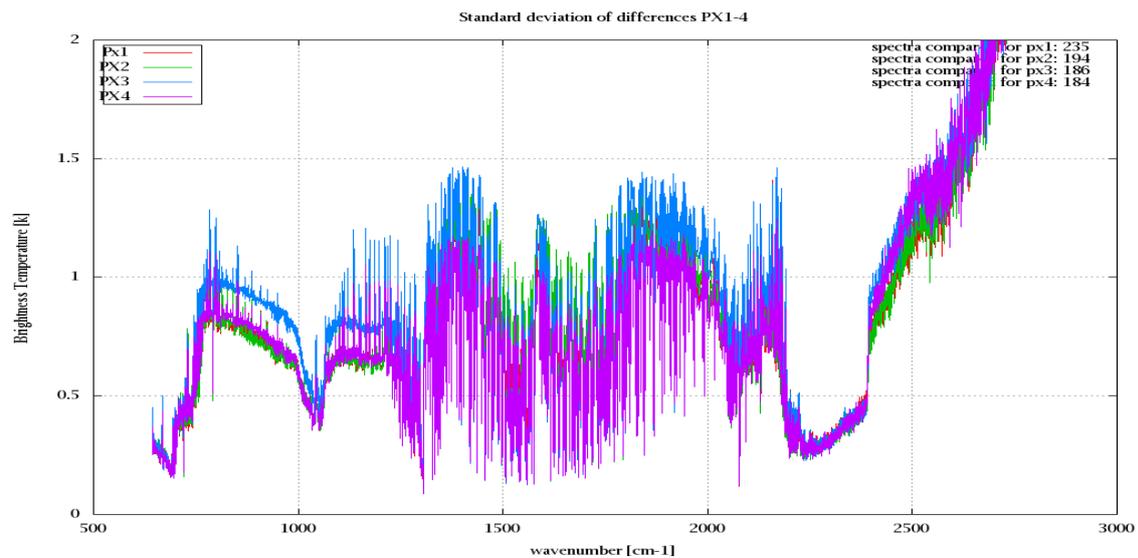


Figure 9: Standard Deviation of Radiance differences

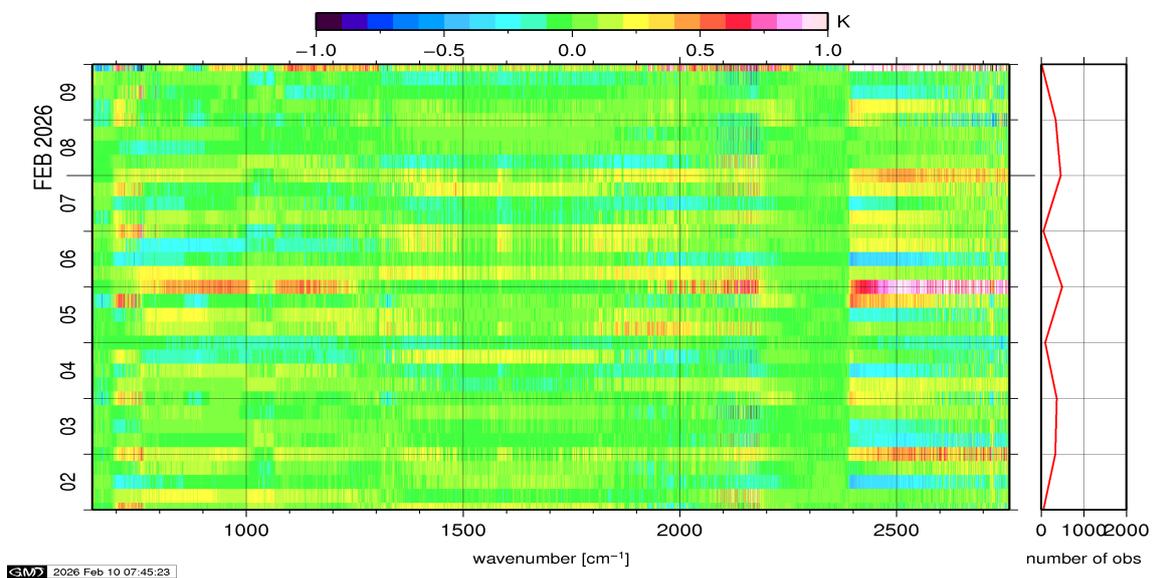


Figure 10: Radiance Anomaly in BT: All Channels

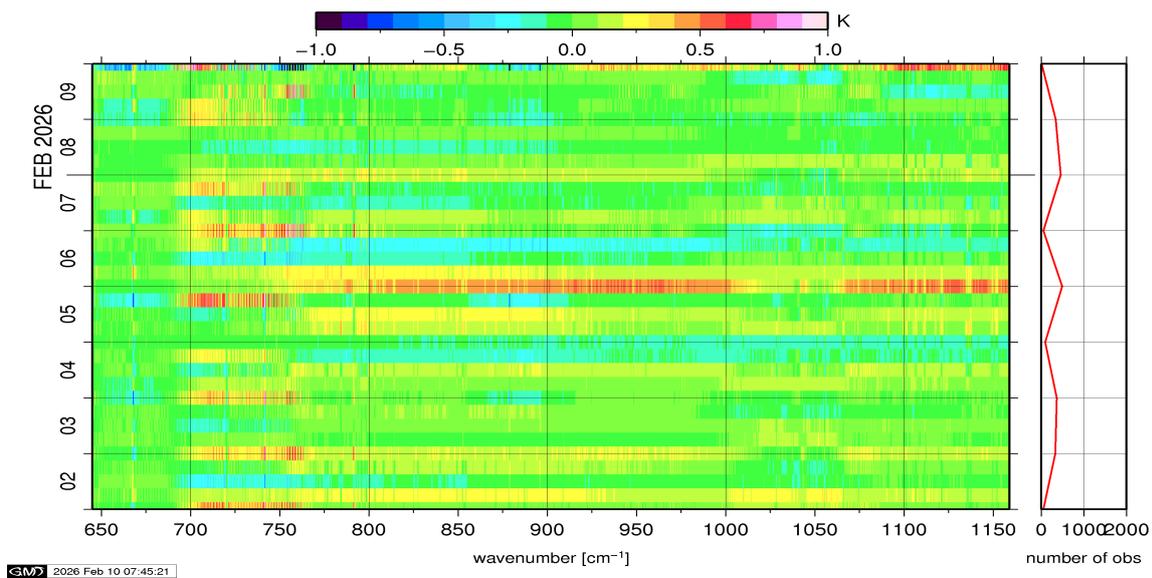


Figure 11: Radiance Anomaly in BT: IASI Band 1

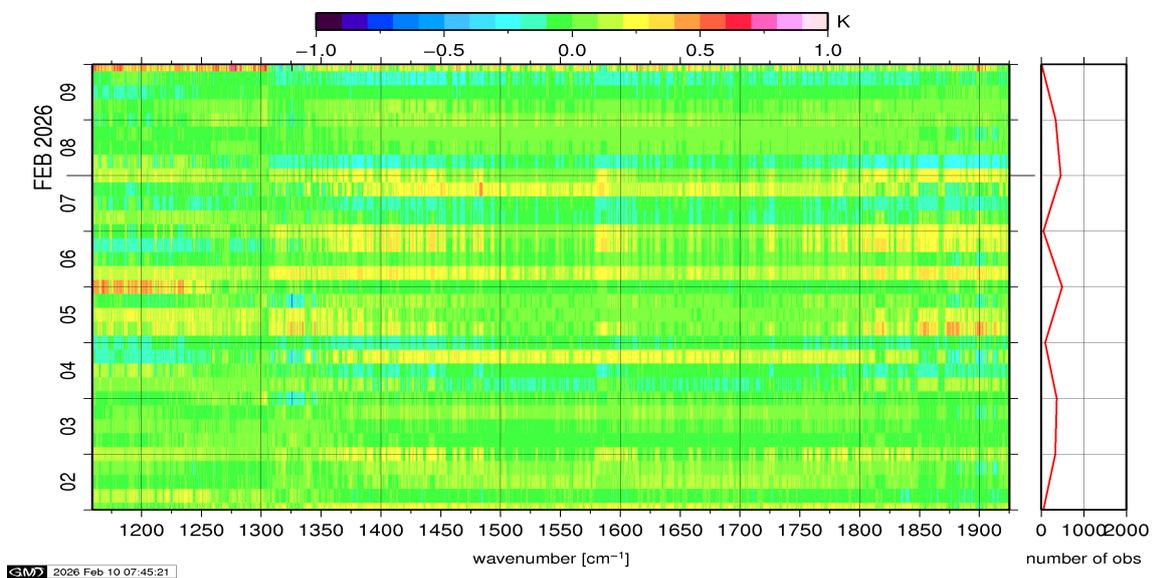


Figure 12: Radiance Anomaly in BT: IASI Band 2

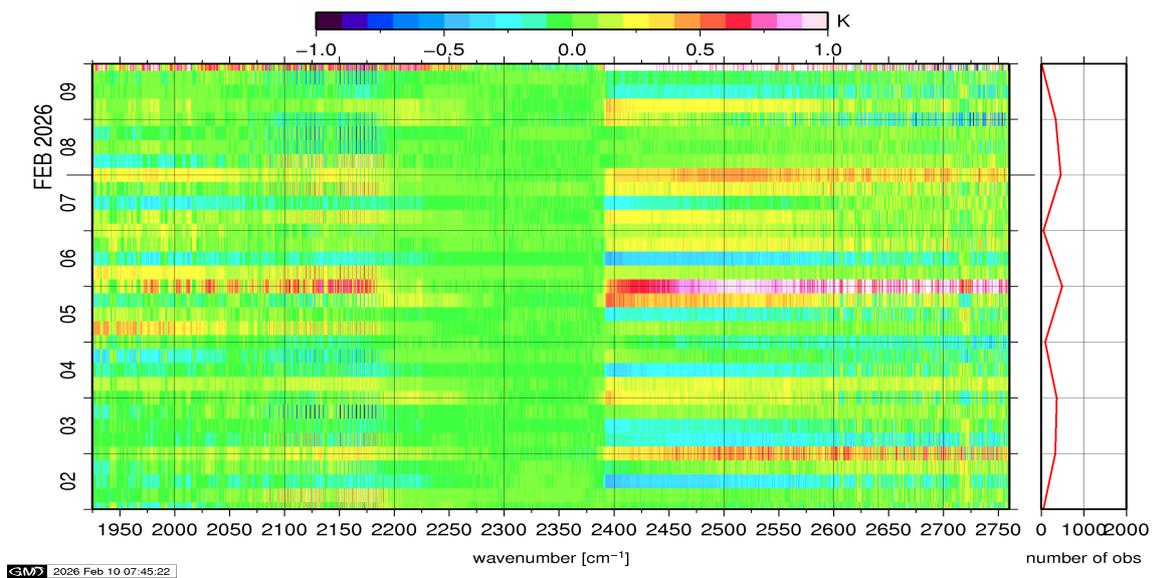


Figure 13: Radiance Anomaly in BT: IASI Band 3

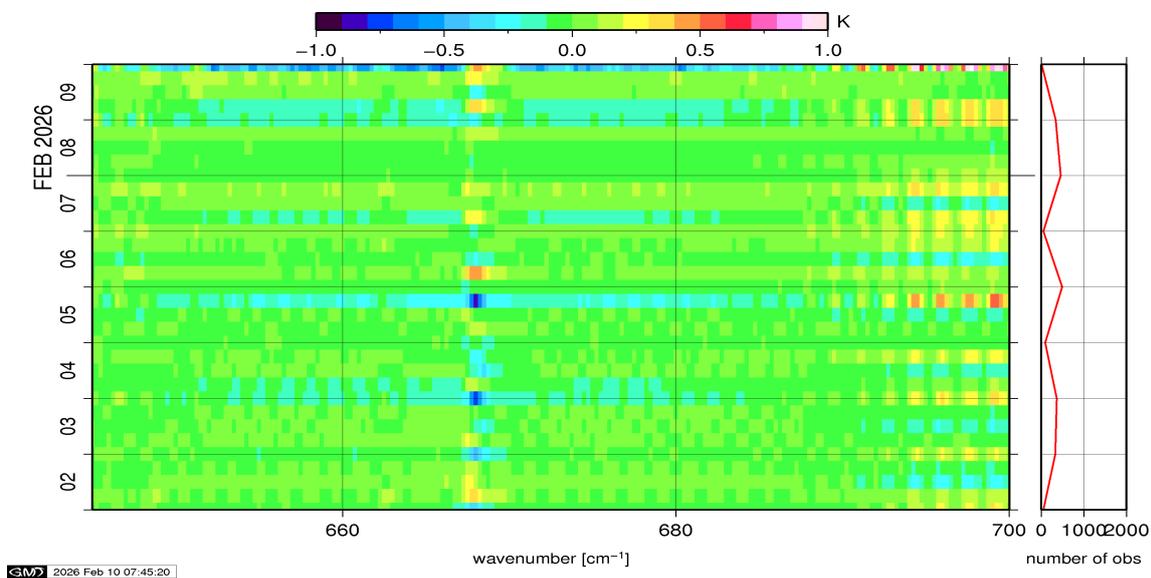


Figure 14: Radiance Anomaly in BT: CO2 14

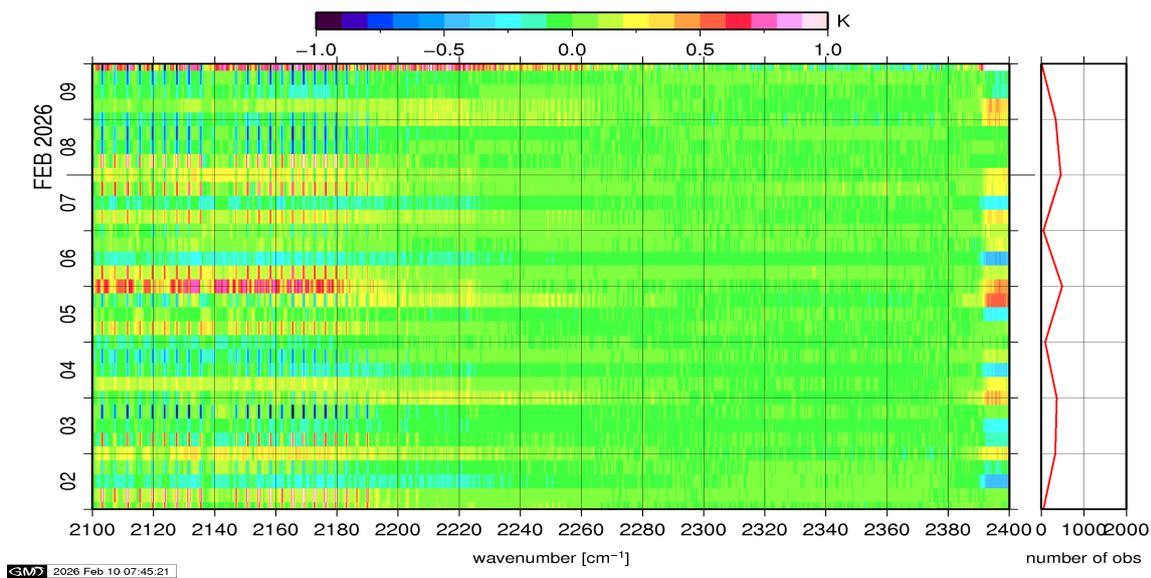


Figure 15: Radiance Anomaly in BT: CO2 4.3

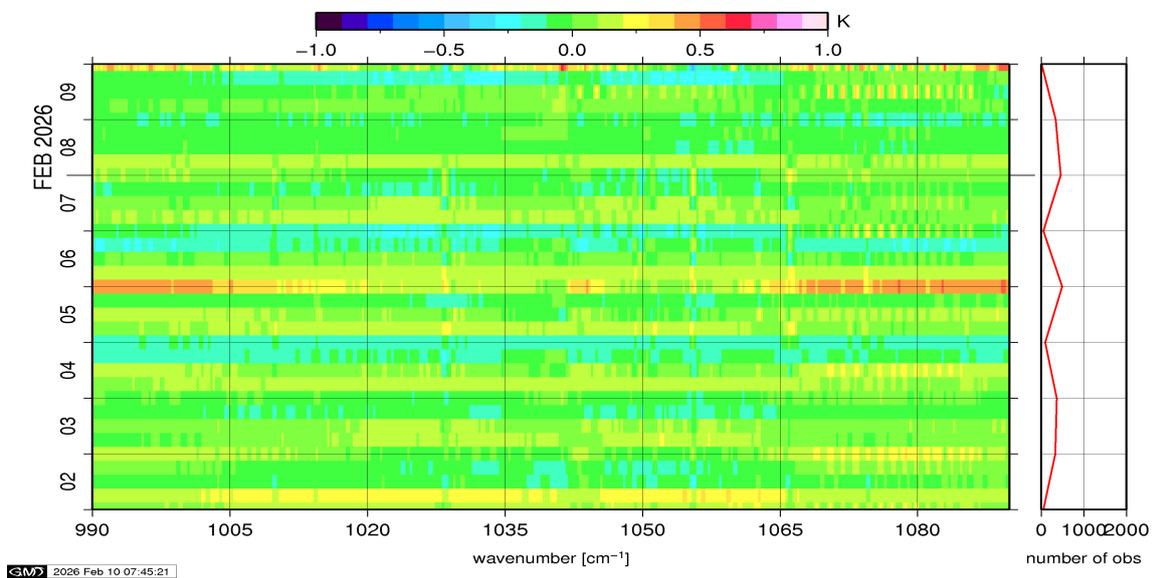


Figure 16: Radiance Anomaly in BT: O3

## 6 IASI-HIRS radiance comparison Channel 1-19

The radiance comparison of IASI and HIRS/4 on-board Metop is performed on all pixels with distances smaller than 3 km between IASI and HIRS. All sky conditions are covered. The radiance differences IASI - HIRS are given in brightness temperatures at 280K reference NeDT. All conditions (clear, cloudy, day and night) are given in red in the following figures. The clear sky conditions at night are given in green and the clear sky cases during daylight are displayed in blue.

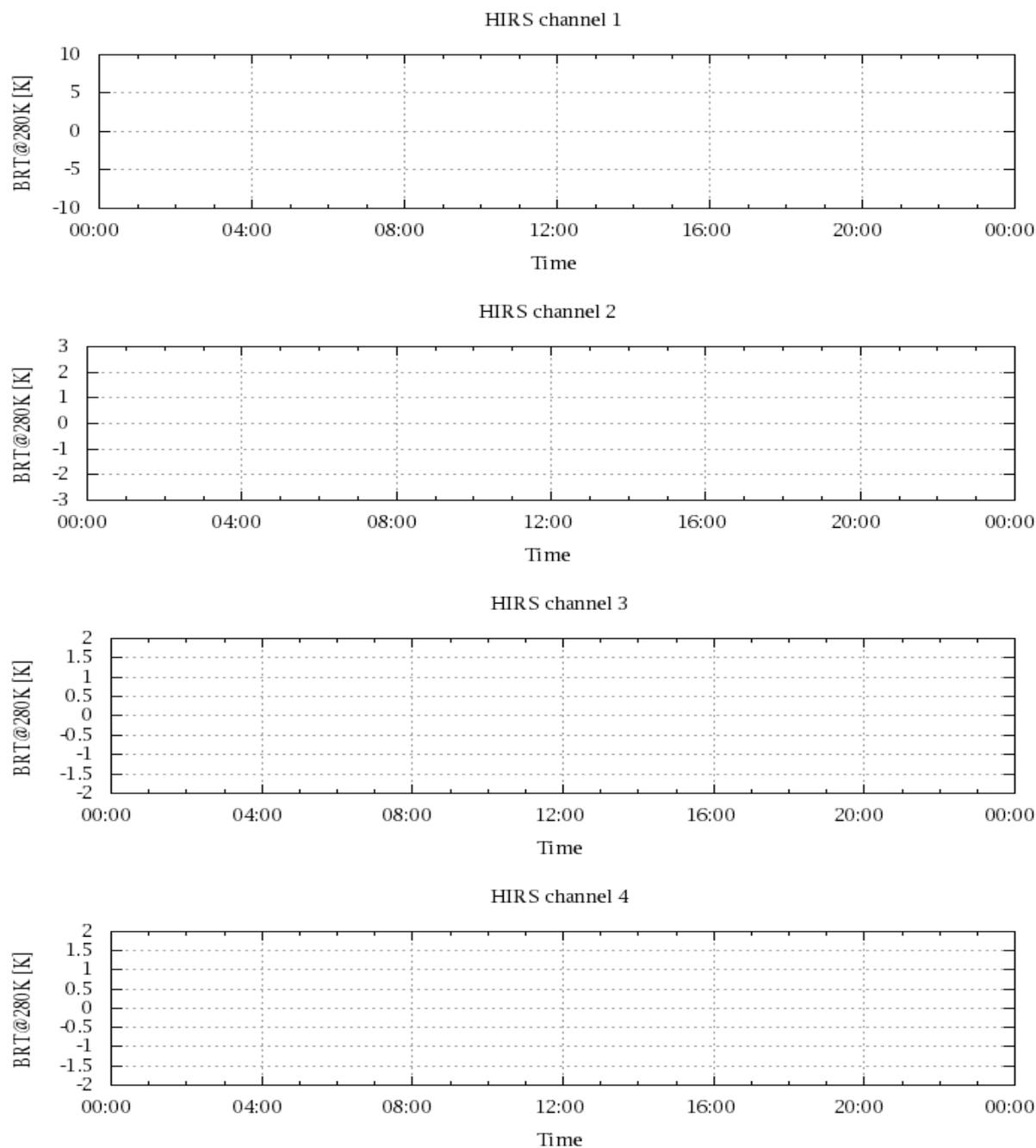


Figure 17: Radiance Differences in BT

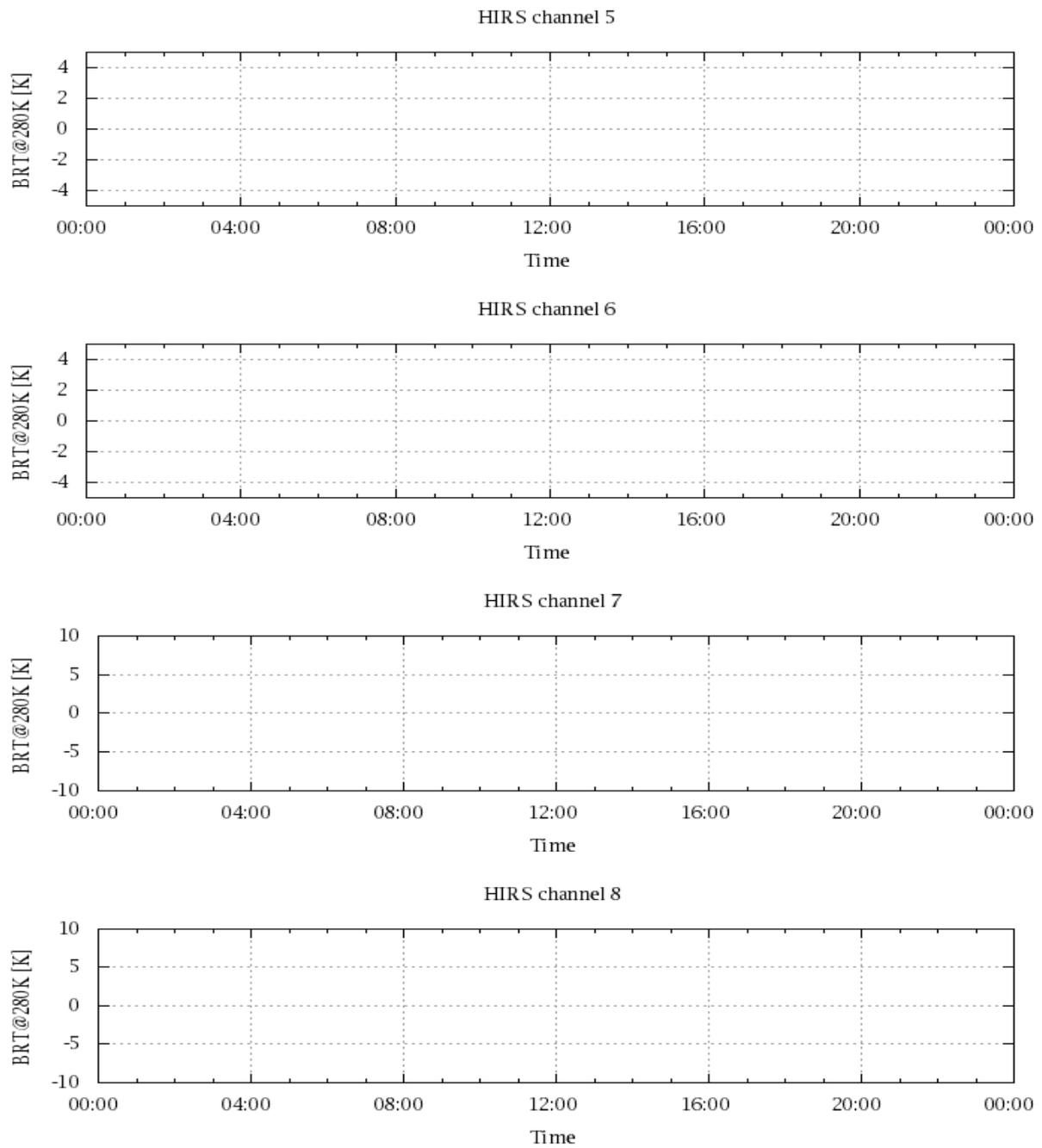


Figure 18: Radiance Differences in BT

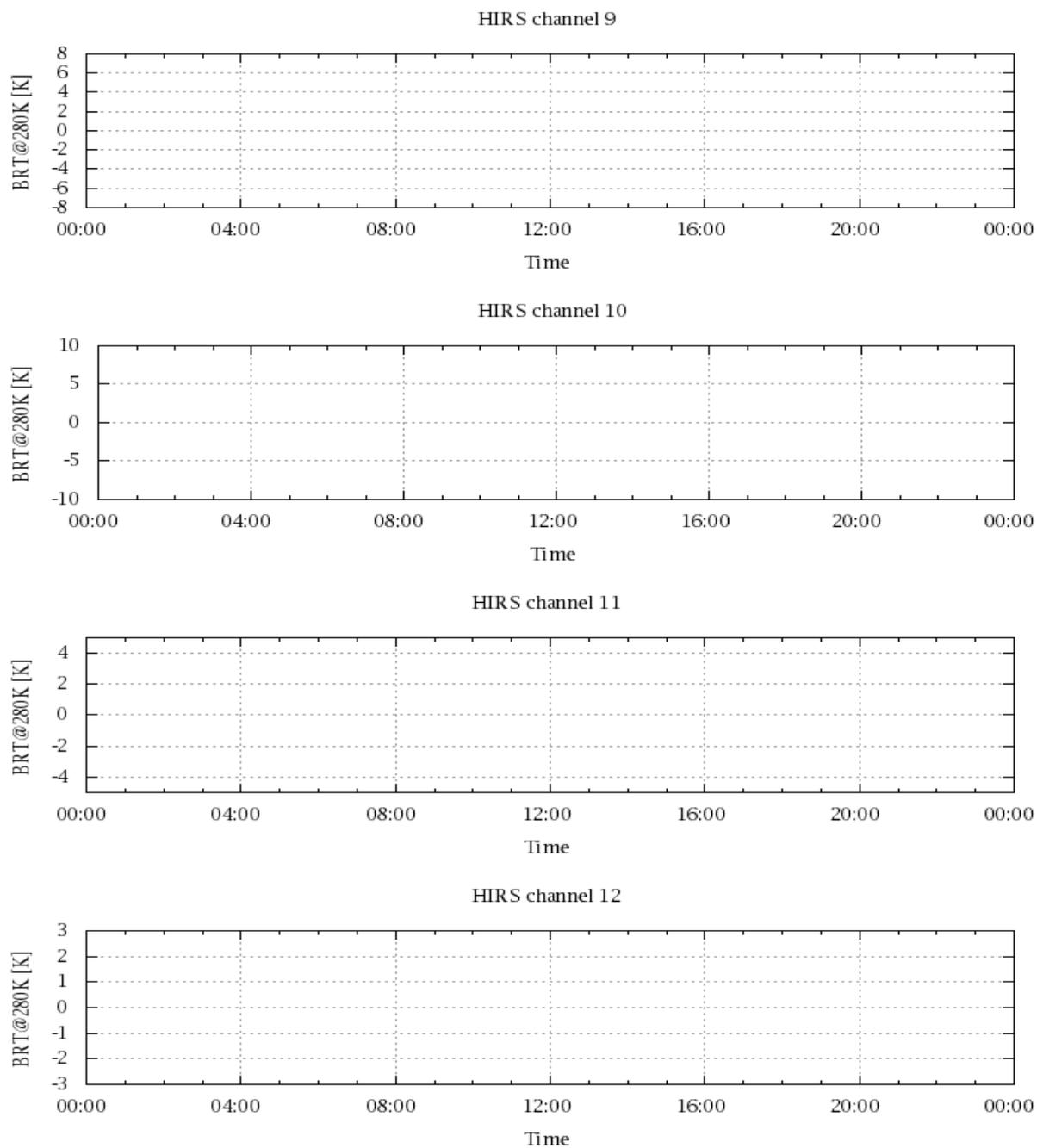


Figure 19: Radiance Differences in BT

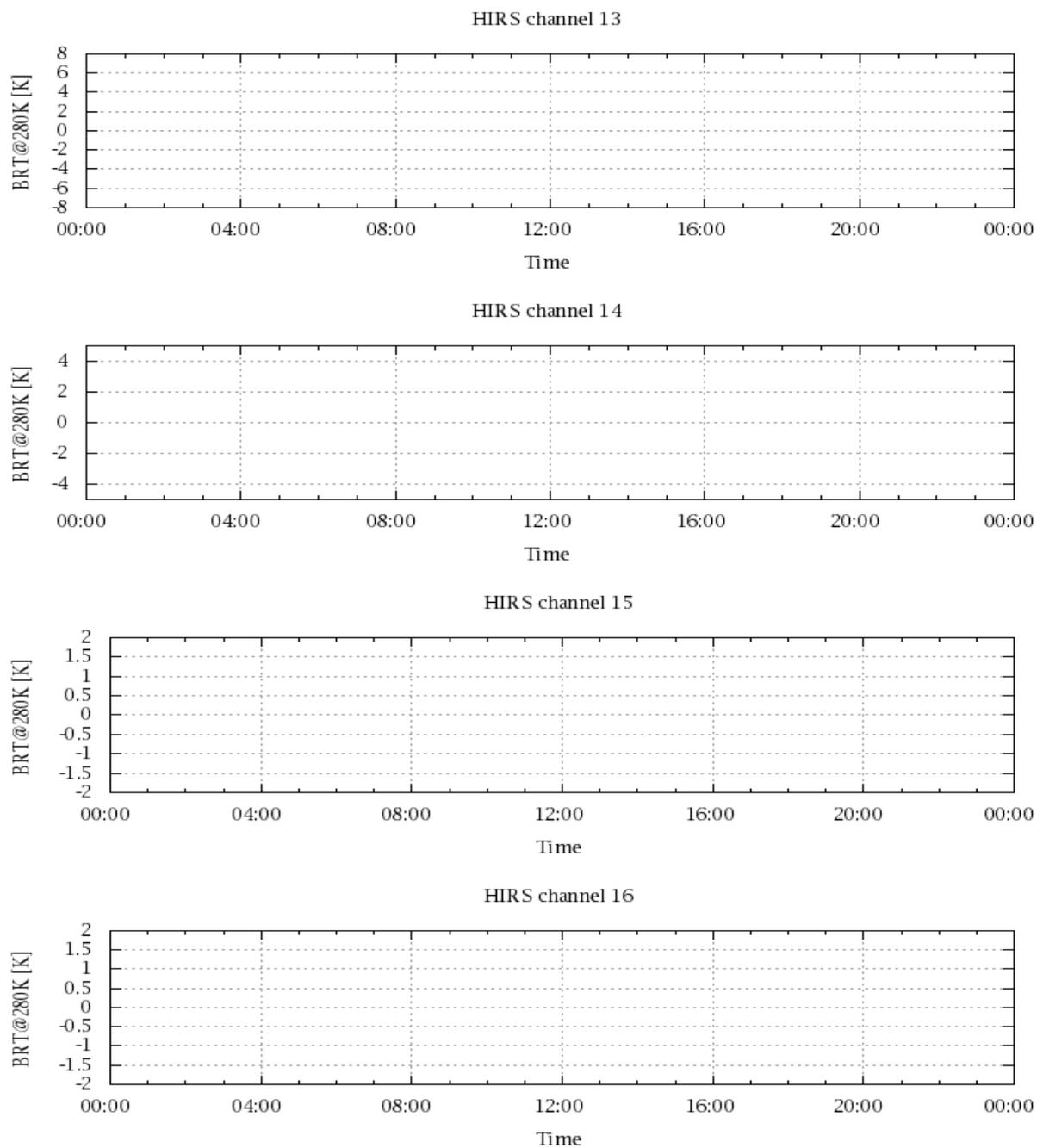


Figure 20: Radiance Differences in BT

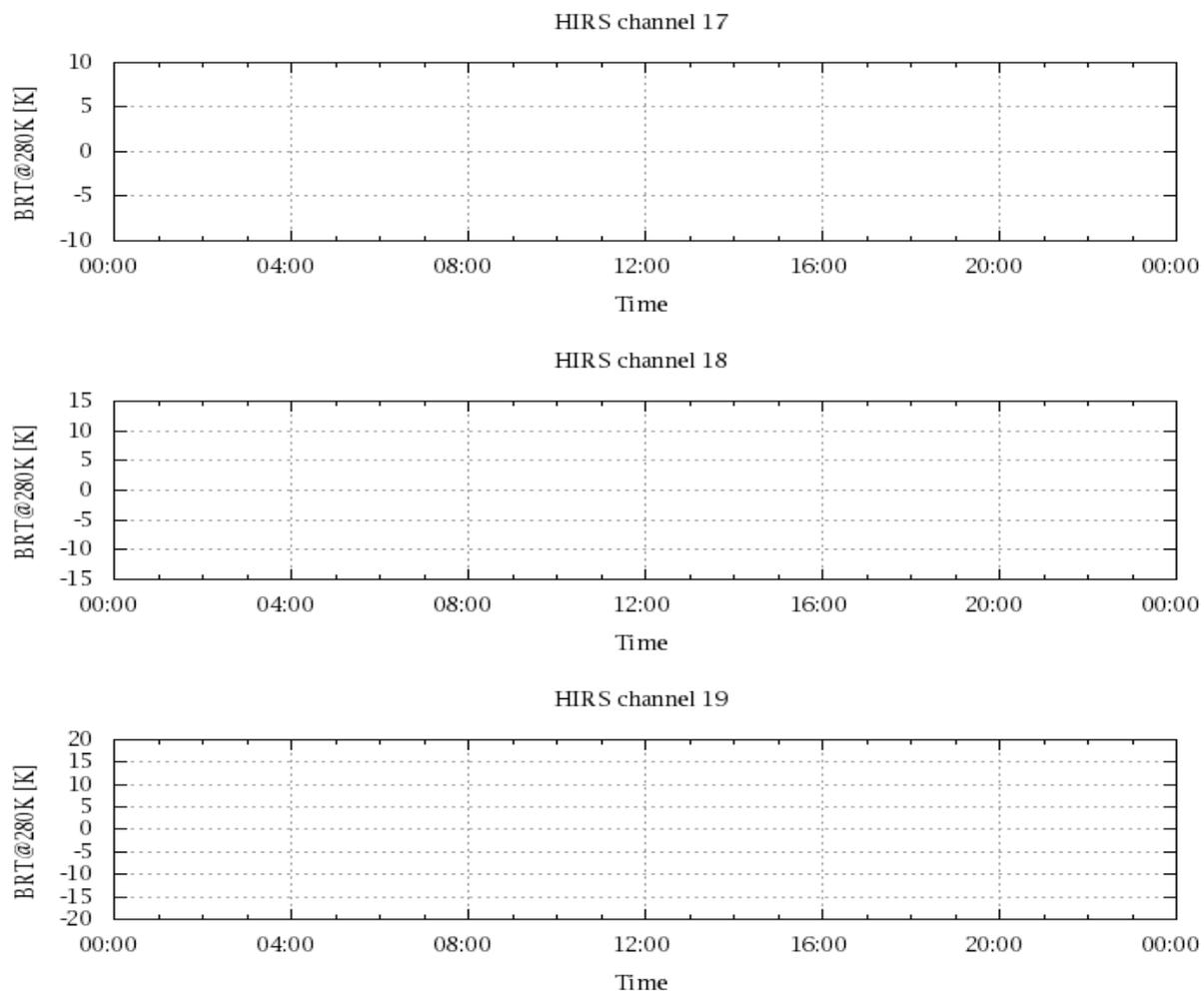


Figure 21: Radinace Differences in BT