

1. MIPAS Daily Report for level 1 products

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1.1 General Info

This report contains a daily analysis on parameters extracted from MIPAS level 1 data (The MIP_NL__1P product).

1.1.1 Report summary

The table below shows general characteristics of the data that are included into this report.

Item	Value
Report version	v1.42 15-10-2013
Time of report generation	03AUG2015 10:23:52
Data source version	MIPAS/7.11-W
Processing scope for products	01JAN2004 00:00:00 to 02JAN2004 00:00:00
Start time of first product within scope	31DEC2003 22:37:21
Stop time of last product within scope	02JAN2004 01:26:46
Total number of level 1 products	16
Number of level 1 products with errors	0

1.1.2 Summary per product

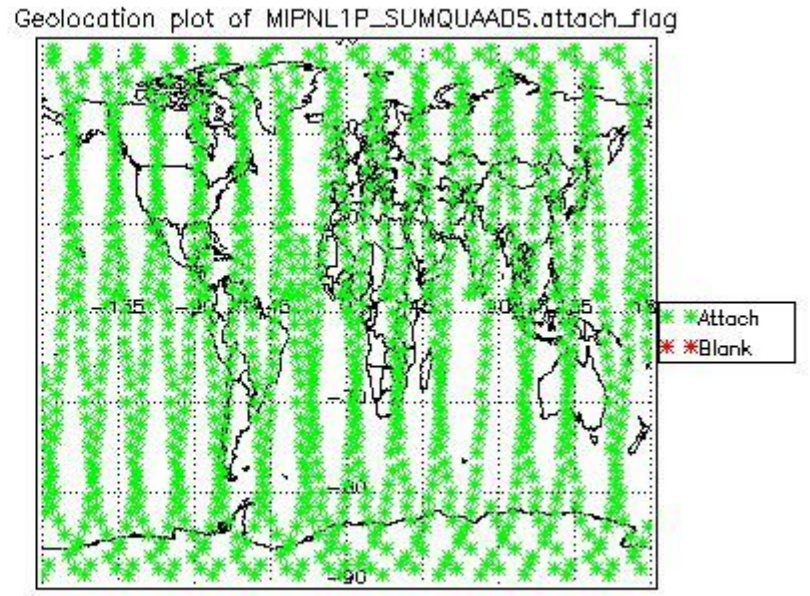
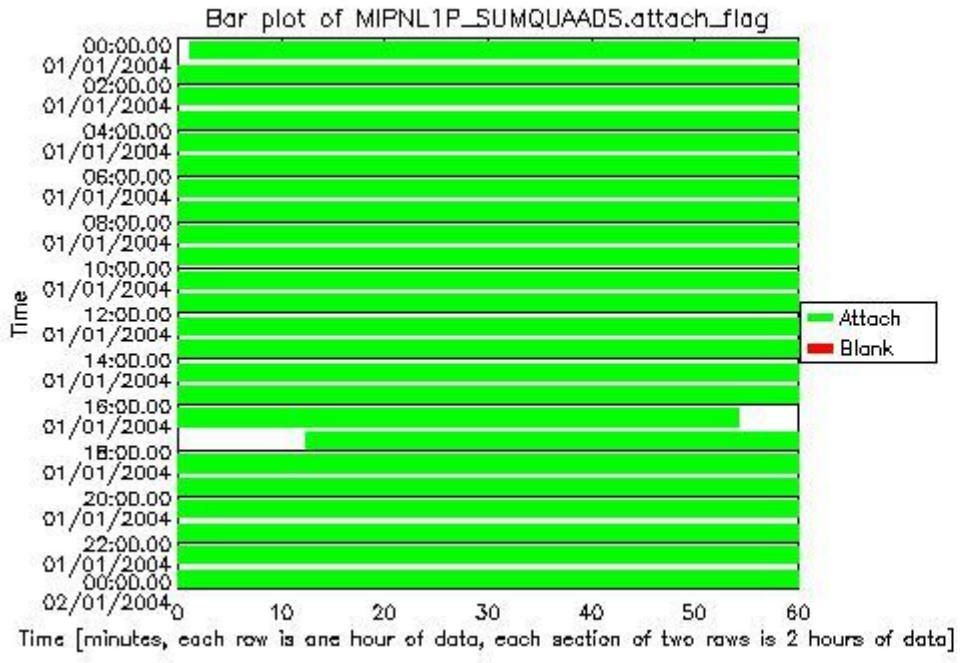
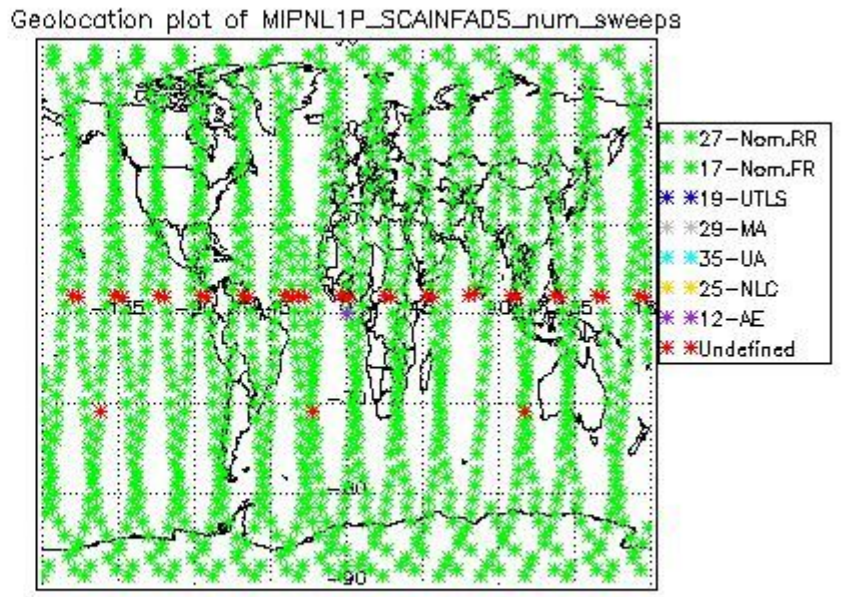
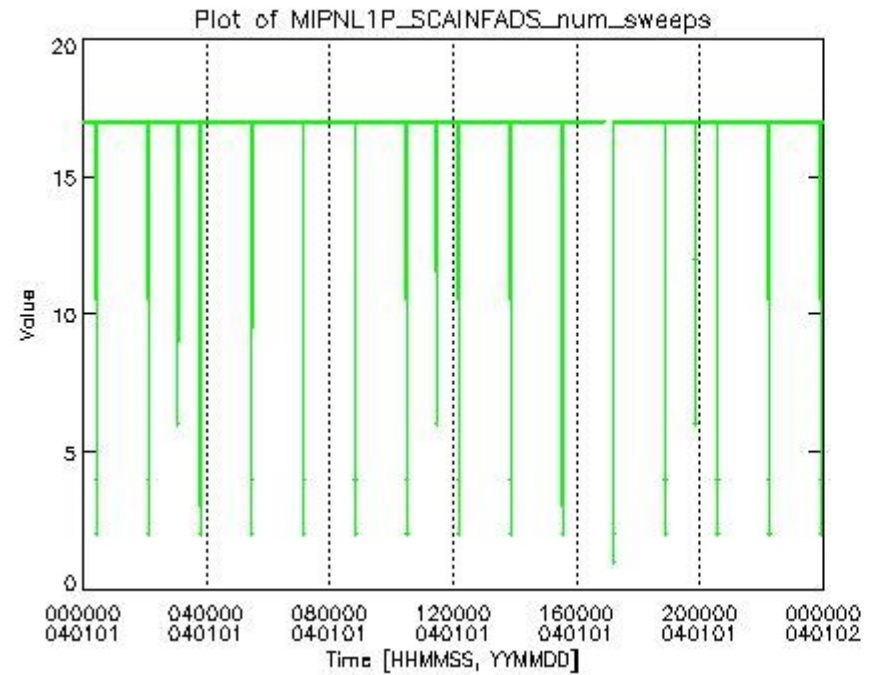
The following table shows a summary for each product used in this report.

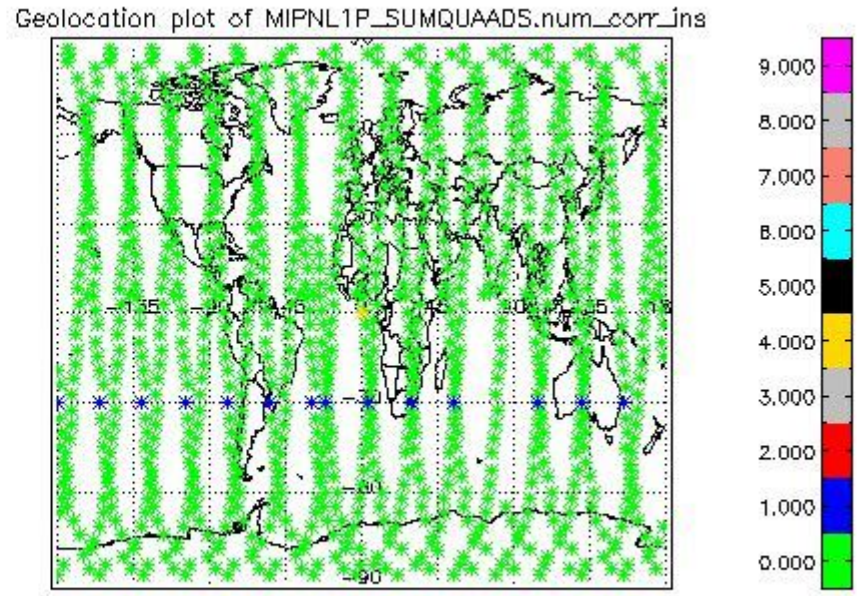
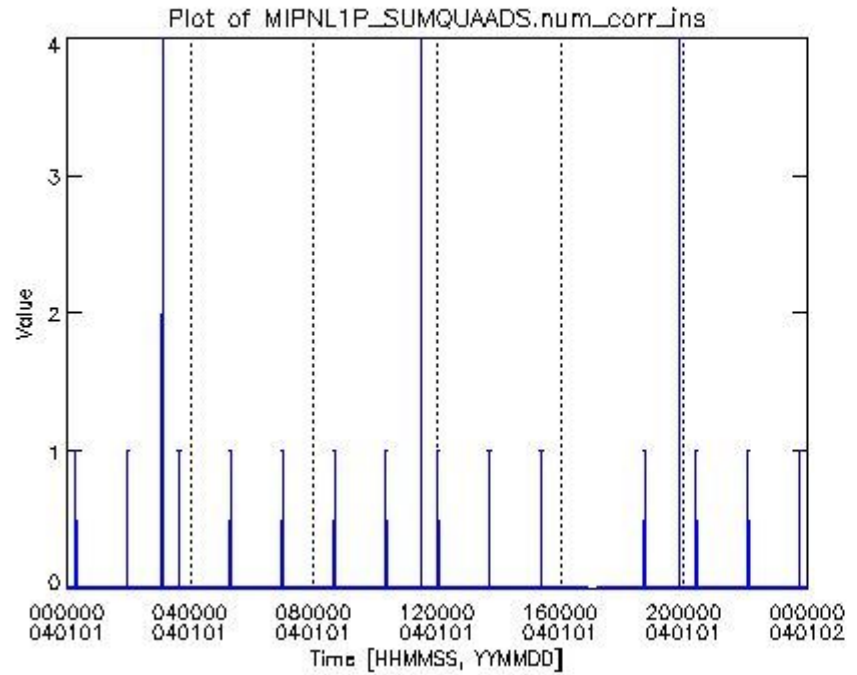
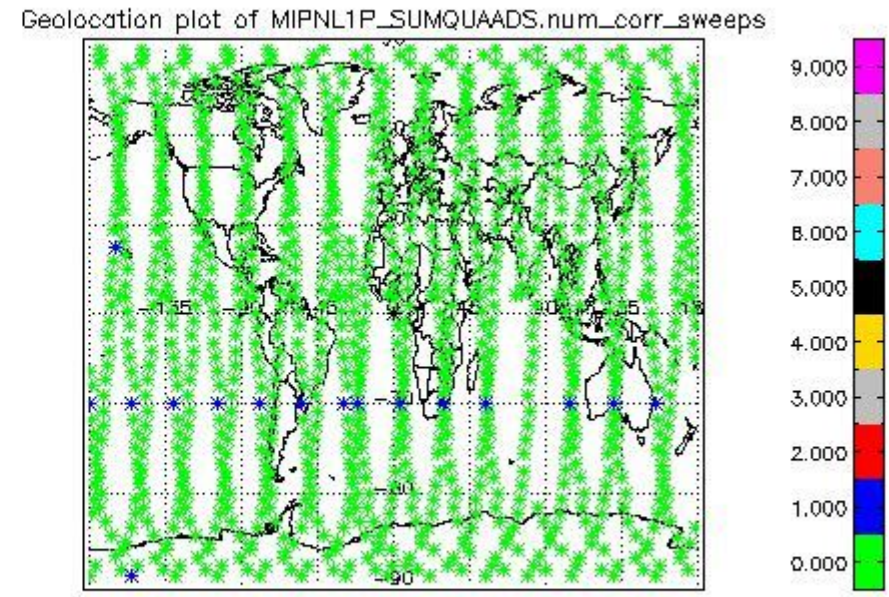
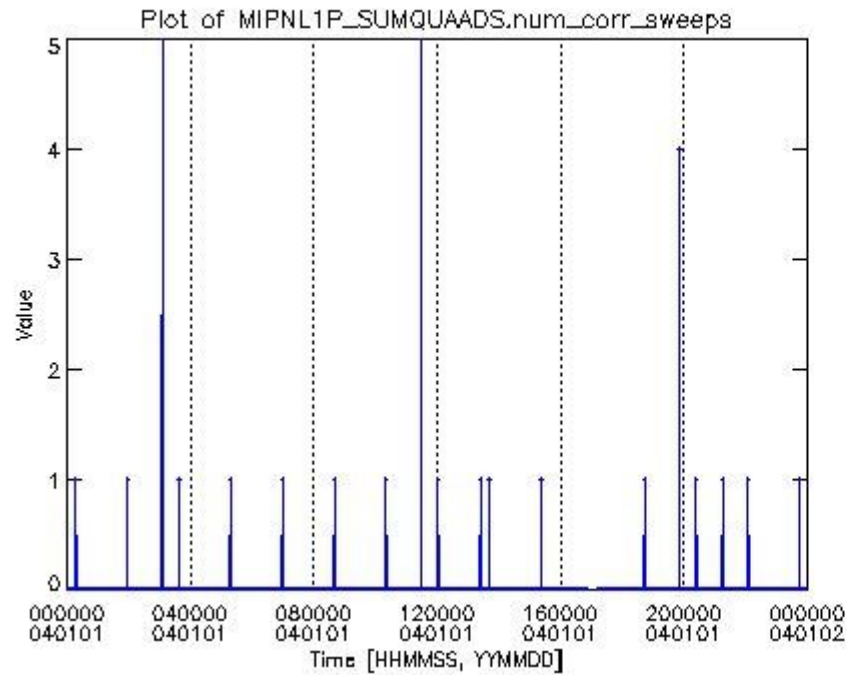
#	Product name	Start time	Stop time	Prod err	Slice position (prod/tot)	#sweeps SPH
0	MIP_NL__1PWDSI20031231_223721_000060272023_00030_09603_0000.N1	31DEC2003 22:37:21	01JAN2004 00:17:48	0	0/0	17
1	MIP_NL__1PWDSI20040101_001757_000060272023_00031_09604_0000.N1	01JAN2004 00:17:57	01JAN2004 01:58:23	0	0/0	17
2	MIP_NL__1PWDSI20040101_015833_000060162023_00032_09605_0000.N1	01JAN2004 01:58:33	01JAN2004 03:38:48	0	0/0	17
3	MIP_NL__1PWDSI20040101_033858_000060382023_00033_09606_0000.N1	01JAN2004 03:38:58	01JAN2004 05:19:35	0	0/0	17
4	MIP_NL__1PWDSI20040101_051945_000060272023_00034_09607_0000.N1	01JAN2004 05:19:45	01JAN2004 07:00:11	0	0/0	17
5	MIP_NL__1PWDSI20040101_070021_000060272023_00035_09608_0000.N1	01JAN2004 07:00:21	01JAN2004 08:40:47	0	0/0	17
6	MIP_NL__1PWDSI20040101_084057_000060272023_00036_09609_0000.N1	01JAN2004 08:40:57	01JAN2004 10:21:23	0	0/0	17
7	MIP_NL__1PWDSI20040101_102133_000060162023_00037_09610_0000.N1	01JAN2004 10:21:33	01JAN2004 12:01:48	0	0/0	17
8	MIP_NL__1PWDSI20040101_120158_000060382023_00038_09611_0000.N1	01JAN2004 12:01:58	01JAN2004 13:42:35	0	0/0	17
9	MIP_NL__1PWDSI20040101_134245_000060272023_00039_09612_0000.N1	01JAN2004 13:42:45	01JAN2004 15:23:11	0	0/0	17
10	MIP_NL__1PWDSI20040101_152321_000054392023_00040_09613_0000.N1	01JAN2004 15:23:21	01JAN2004 16:53:59	0	0/0	17
11	MIP_NL__1PWDSI20040101_171227_000055162023_00041_09614_0000.N1	01JAN2004 17:12:27	01JAN2004 18:44:23	0	0/0	17
12	MIP_NL__1PWDSI20040101_184432_000060162023_00042_09615_0000.N1	01JAN2004 18:44:32	01JAN2004 20:24:48	0	0/0	17
13	MIP_NL__1PWDSI20040101_202457_000060382023_00043_09616_0000.N1	01JAN2004 20:24:57	01JAN2004 22:05:35	0	0/0	17
14	MIP_NL__1PWDSI20040101_220544_000060272023_00044_09617_0000.N1	01JAN2004 22:05:44	01JAN2004 23:46:10	0	0/0	17
15	MIP_NL__1PWDSI20040101_234620_000060272023_00045_09618_0000.N1	01JAN2004 23:46:20	02JAN2004 01:26:46	0	0/0	17

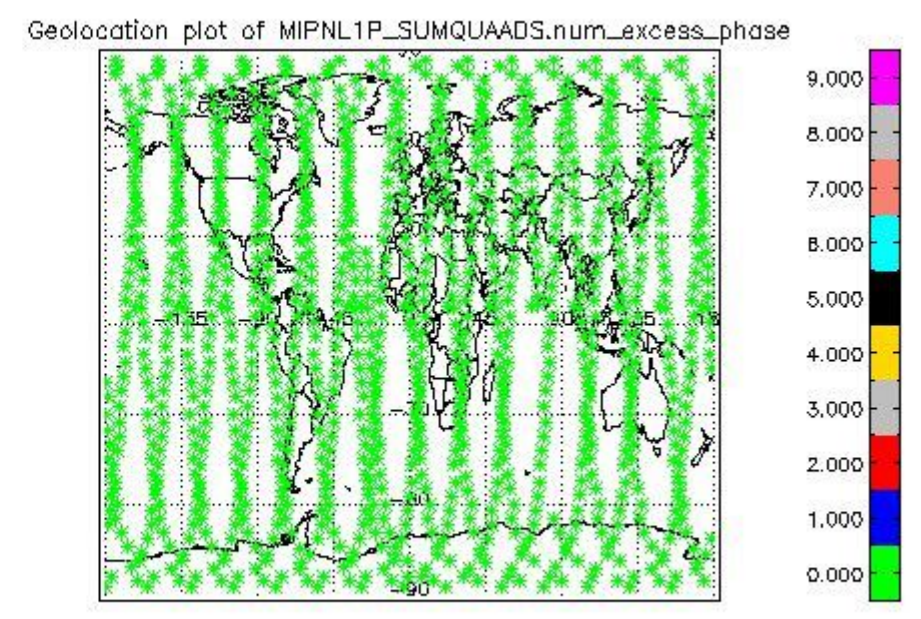
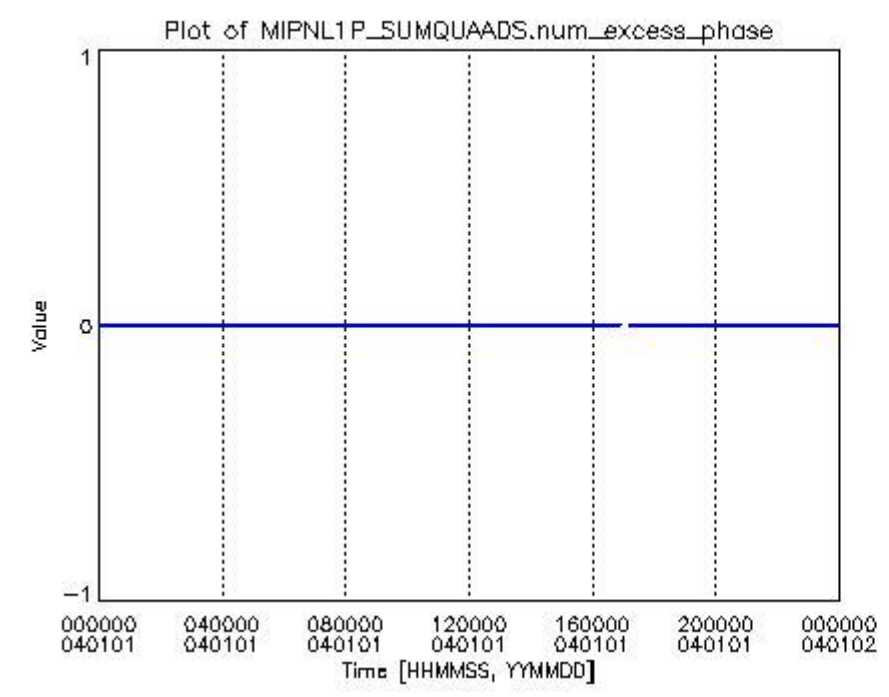
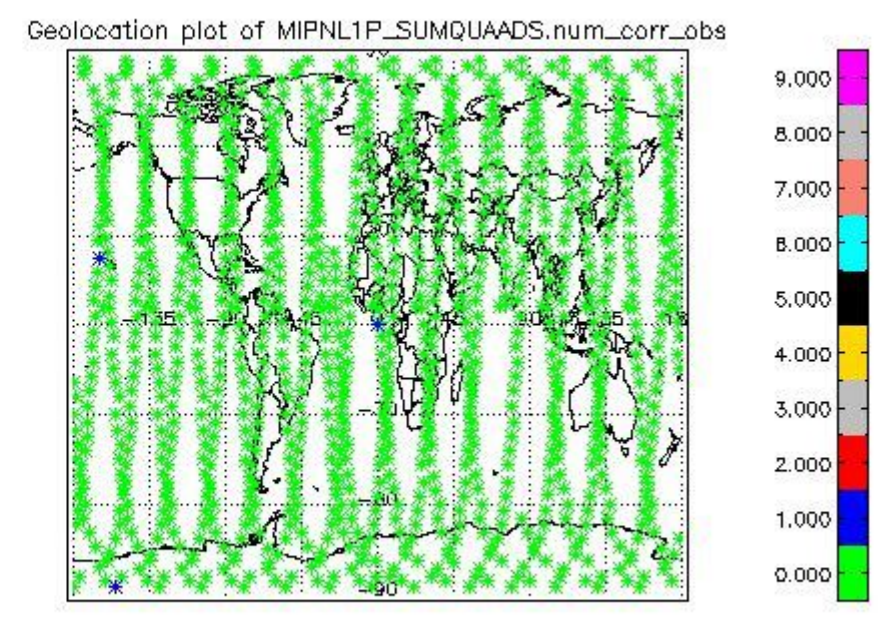
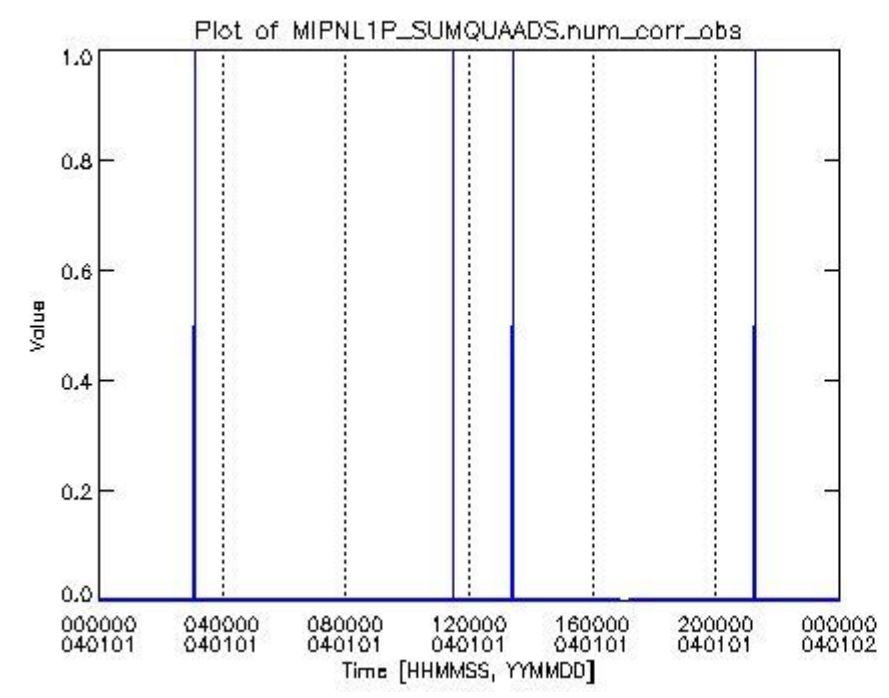
1.2 Product Quality Indicators

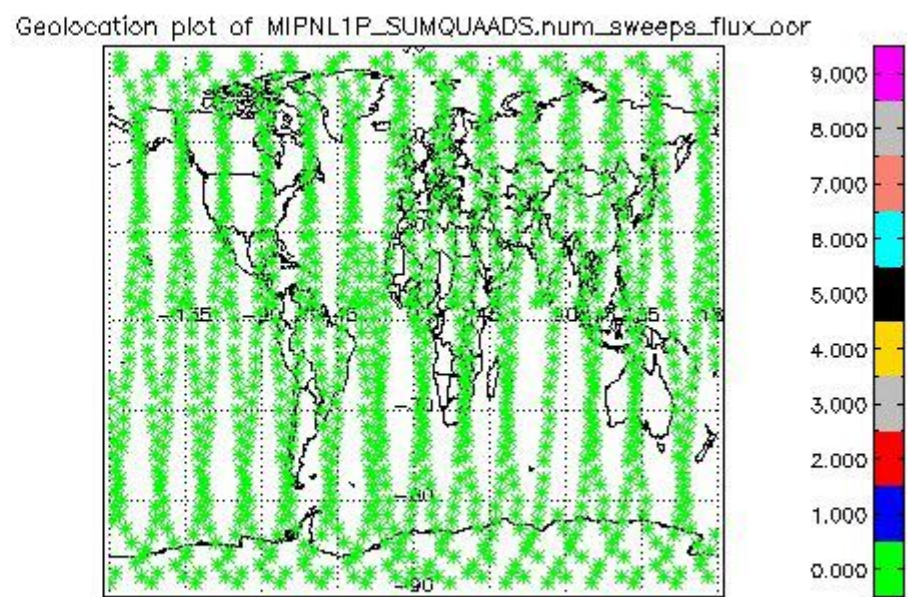
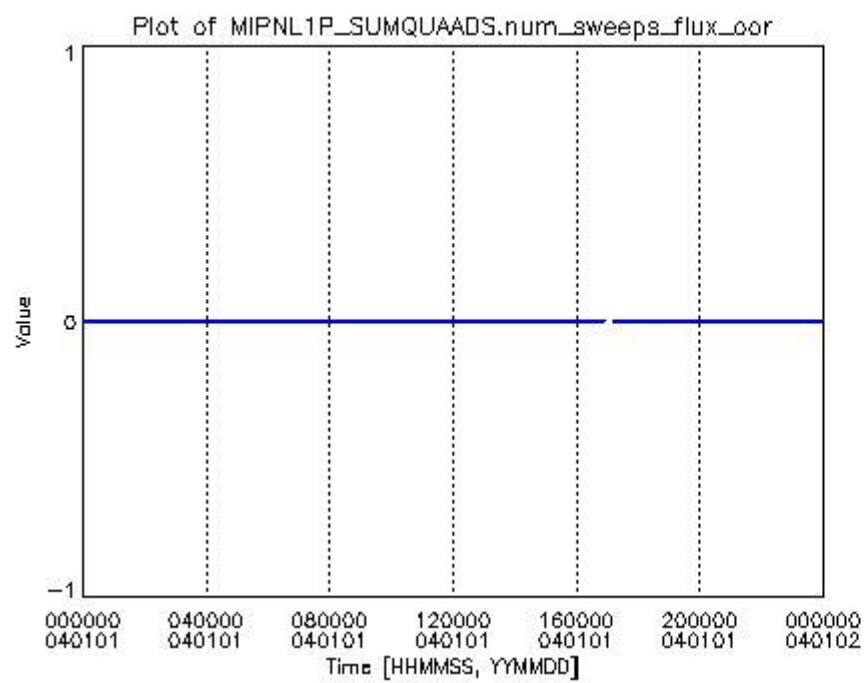
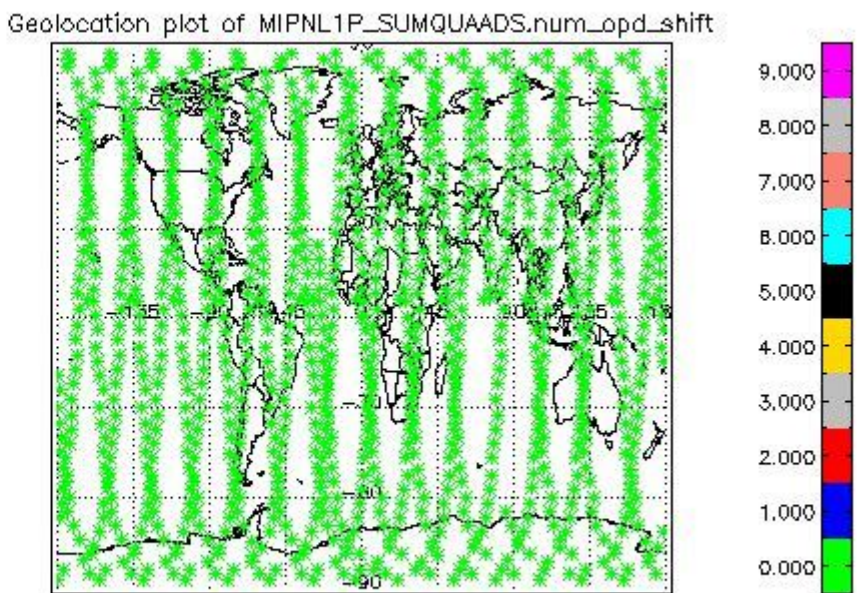
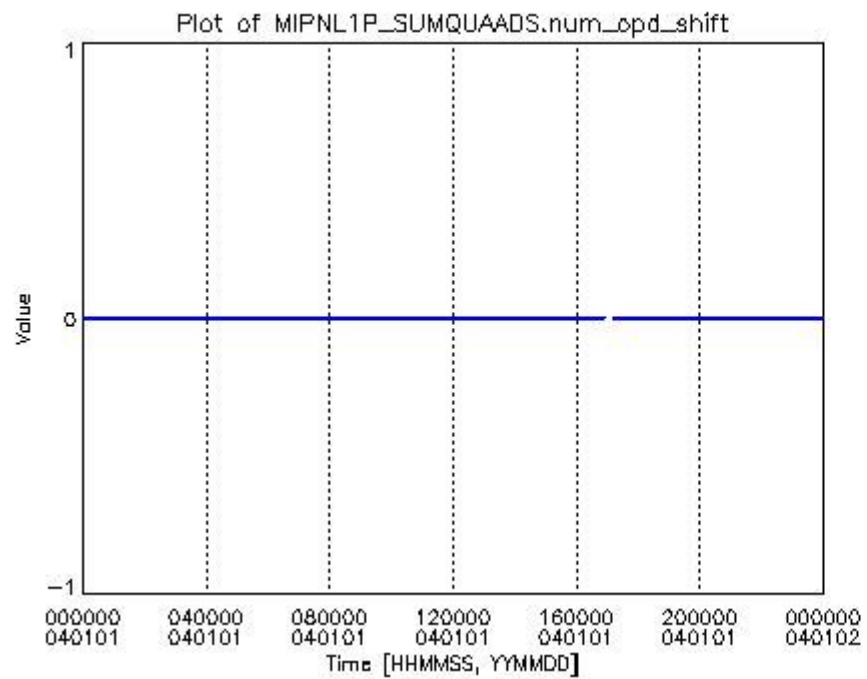
This report contains an analysis on product quality related parameters within the MIP_NL__1P product.

1.2.1 Trends and geolocation of Summary Quality and Scan Information ADS



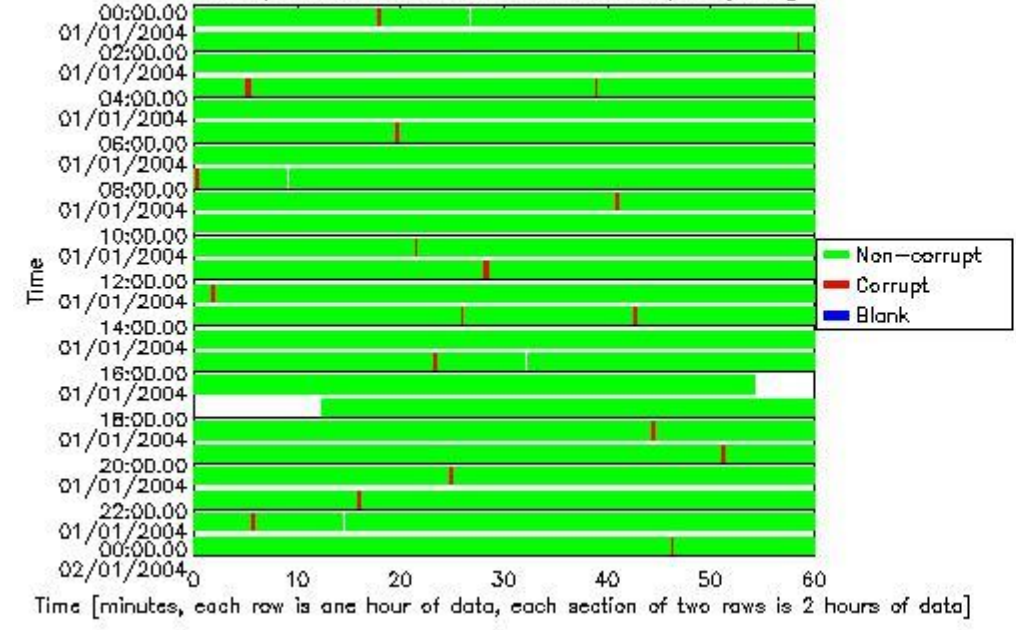




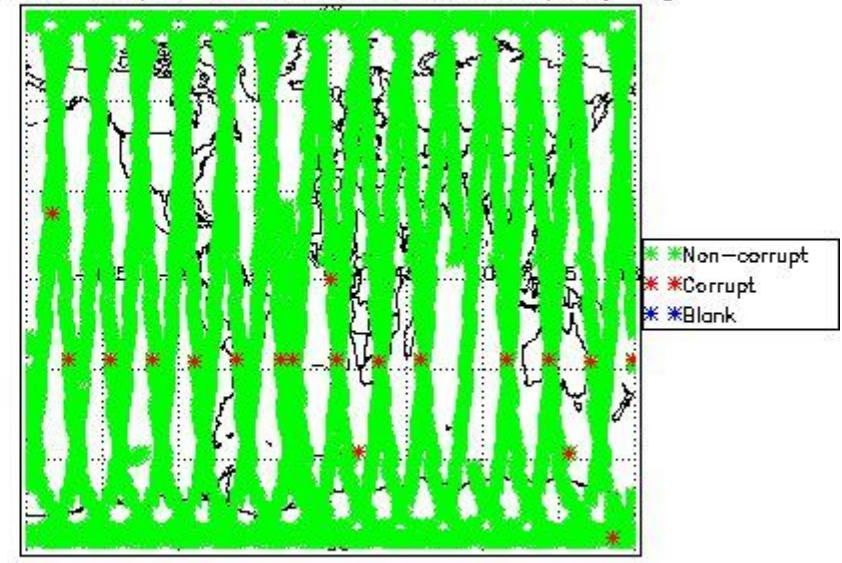


1.2.2 Trends and geolocation of MIPAS LEVEL 1 MDS

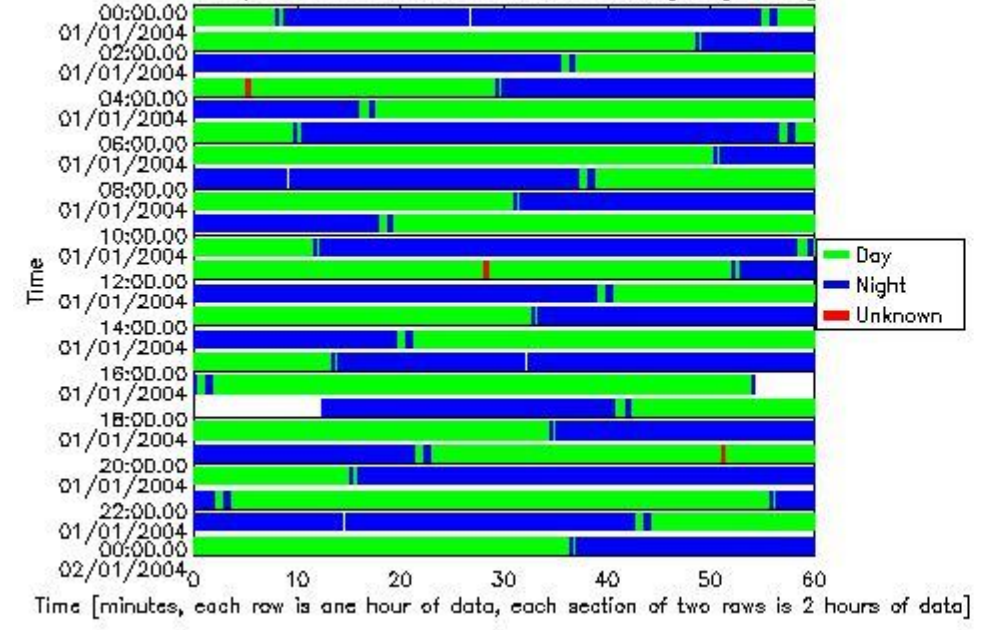
Bar plot of MIPNL1P_MIPLEV1BMDS_quality_flag



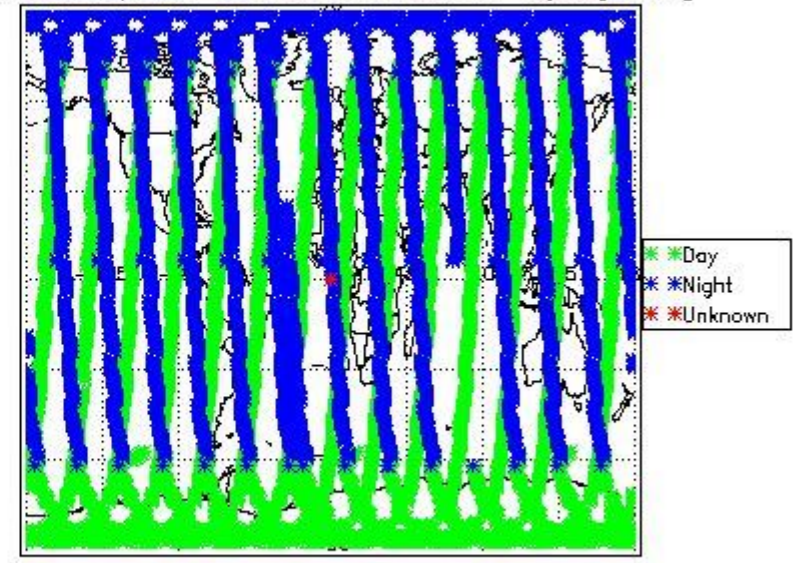
Geolocation plot of MIPNL1P_MIPLEV1BMDS_quality_flag

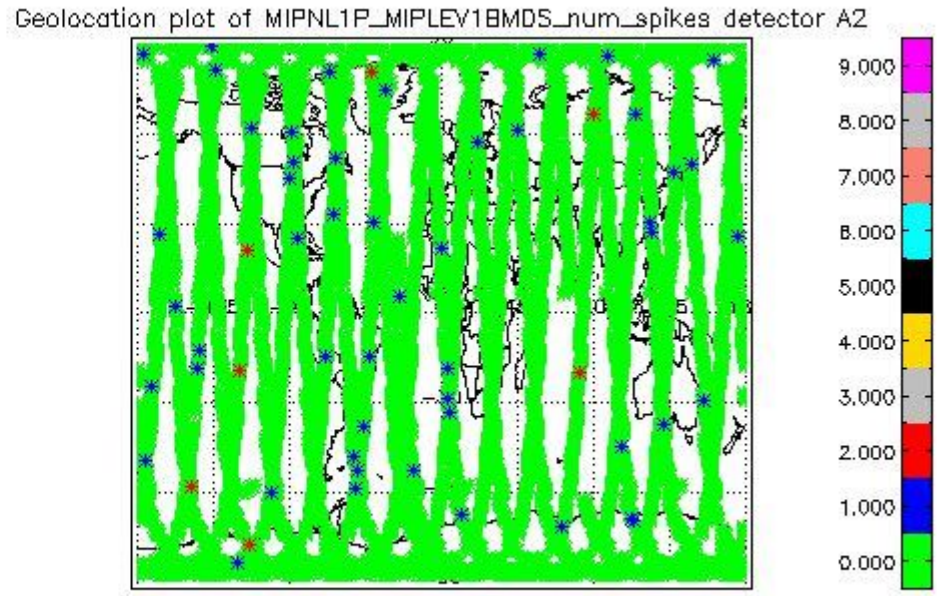
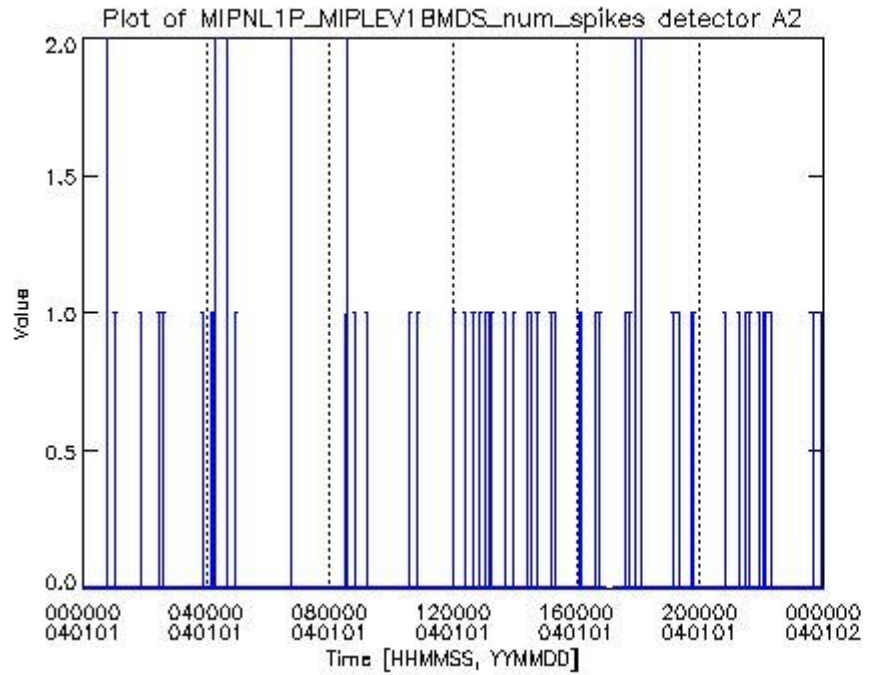
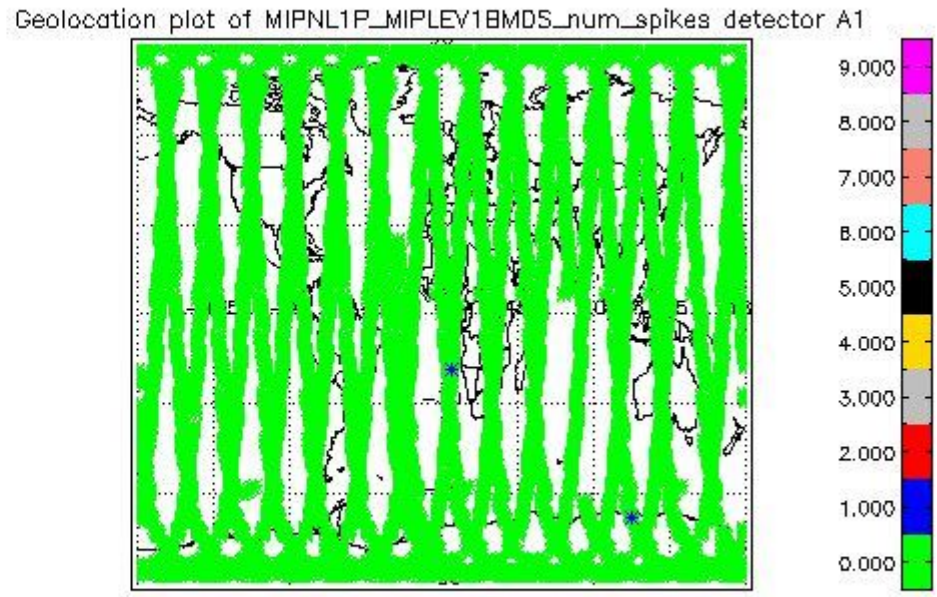
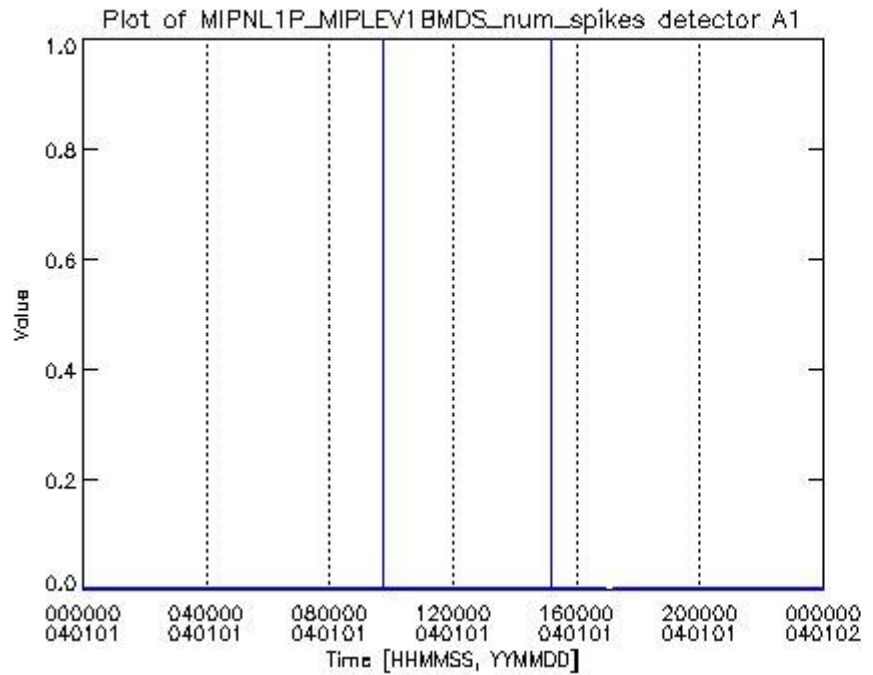


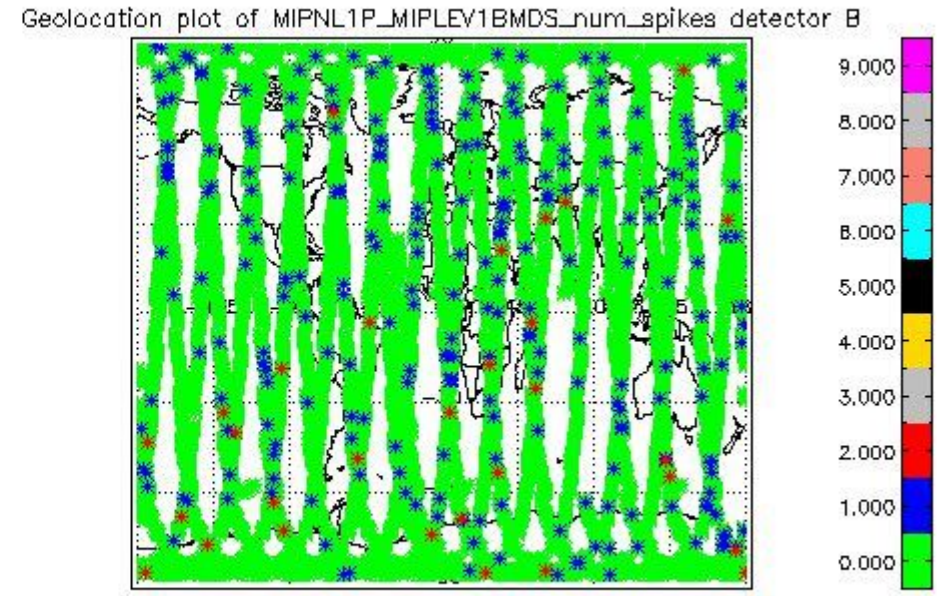
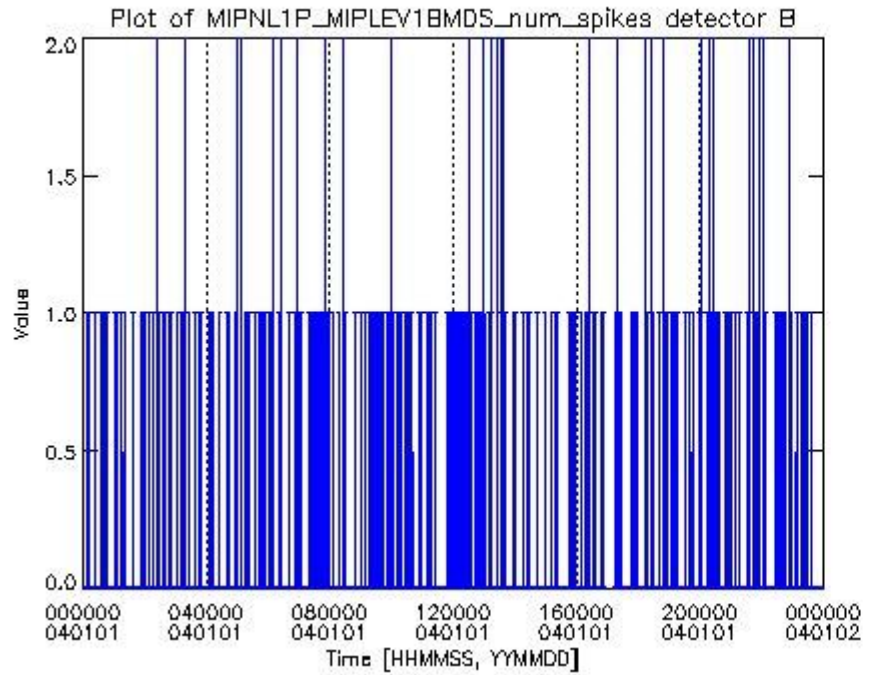
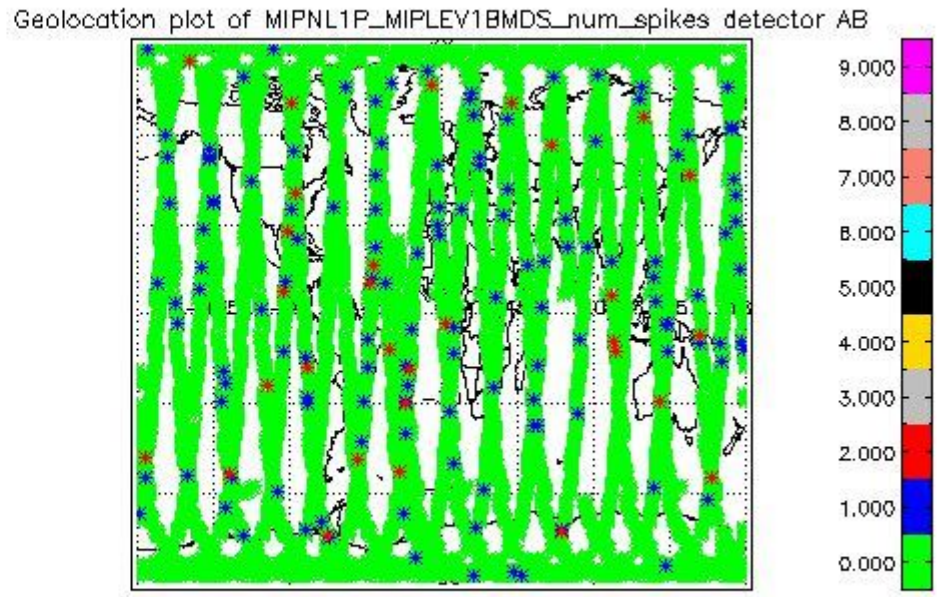
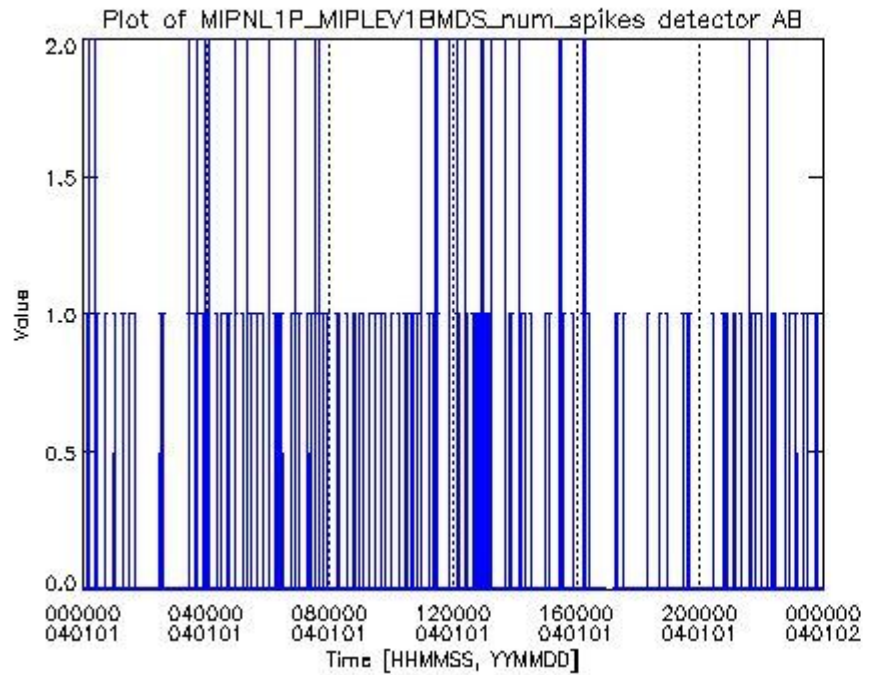
Bar plot of MIPNL1P_MIPLEV1BMDS_day_night_flag

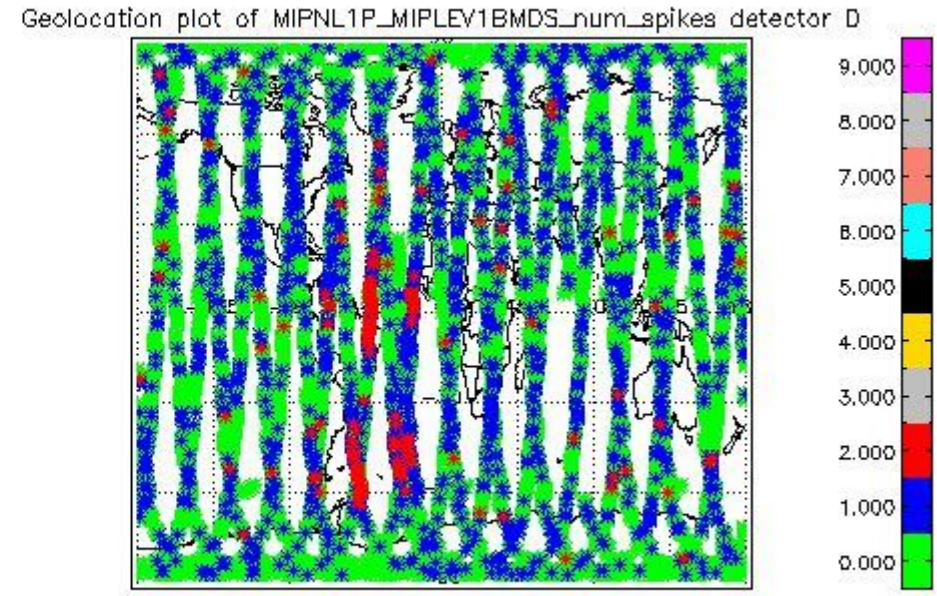
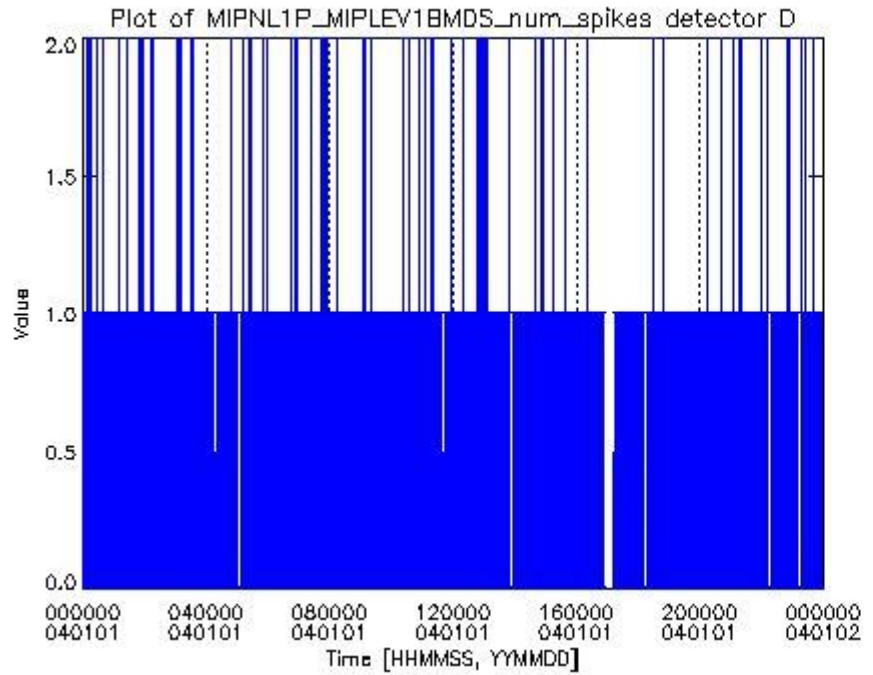
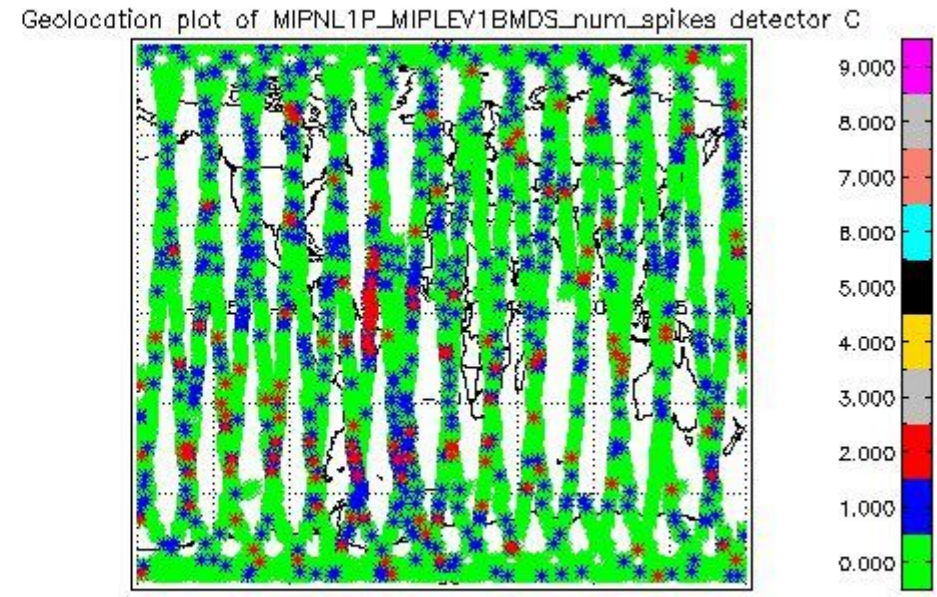
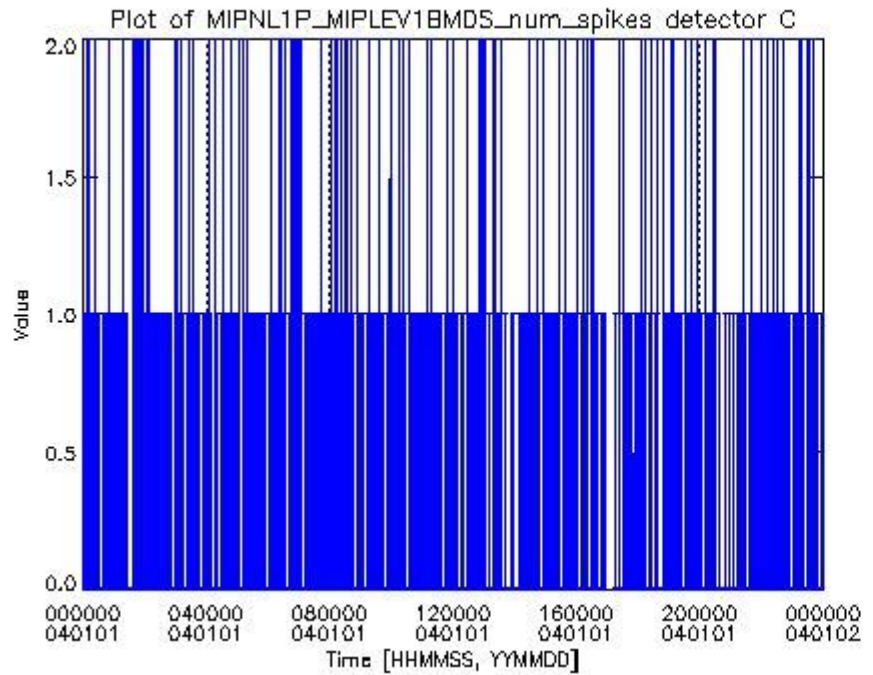


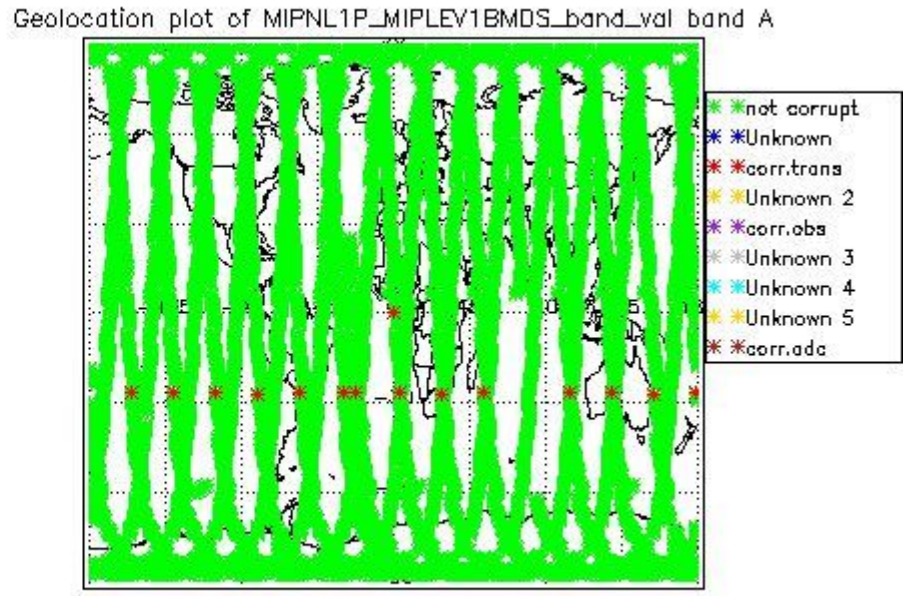
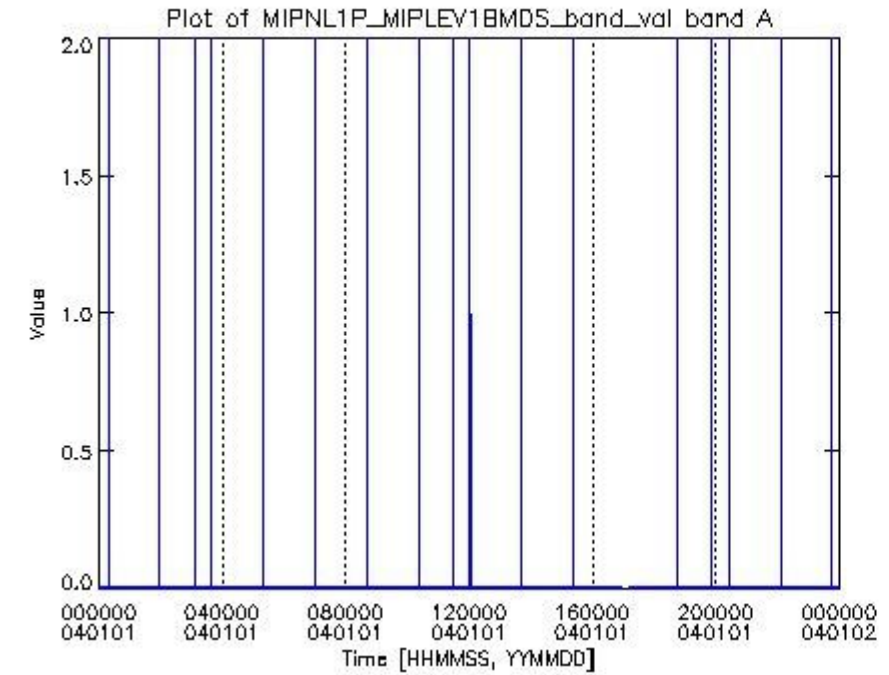
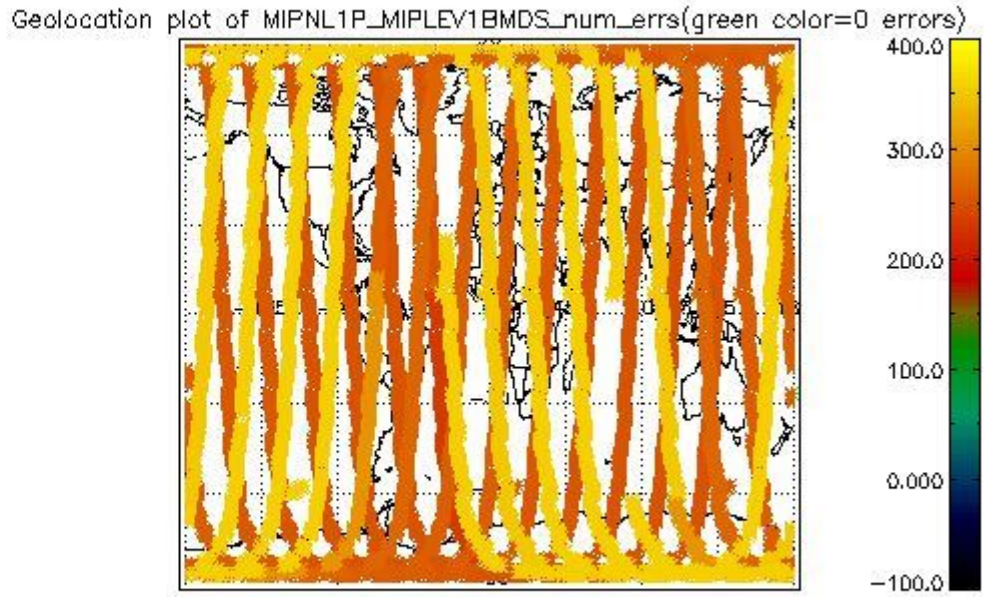
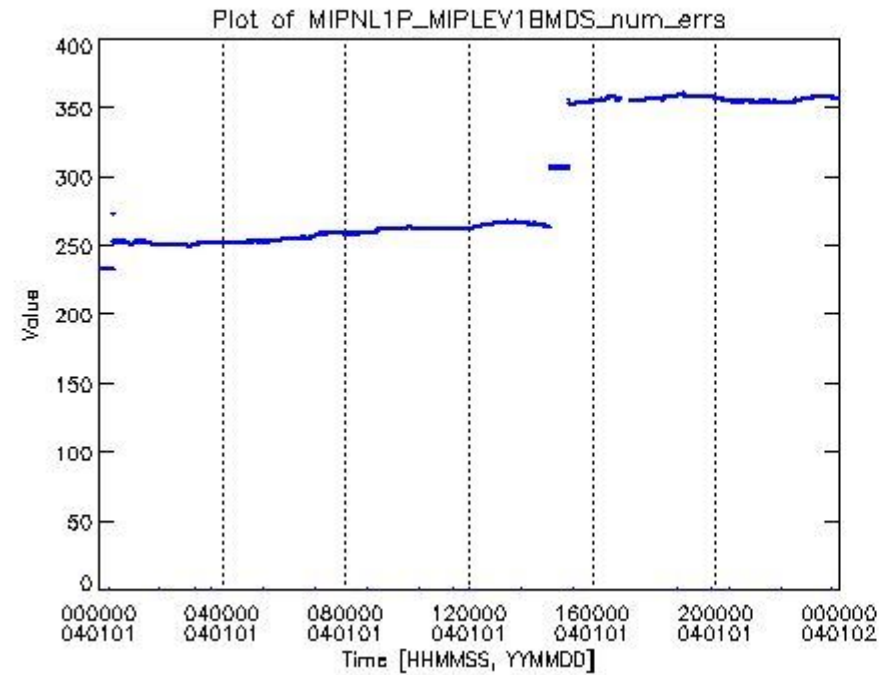
Geolocation plot of MIPNL1P_MIPLEV1BMDS_day_night_flag

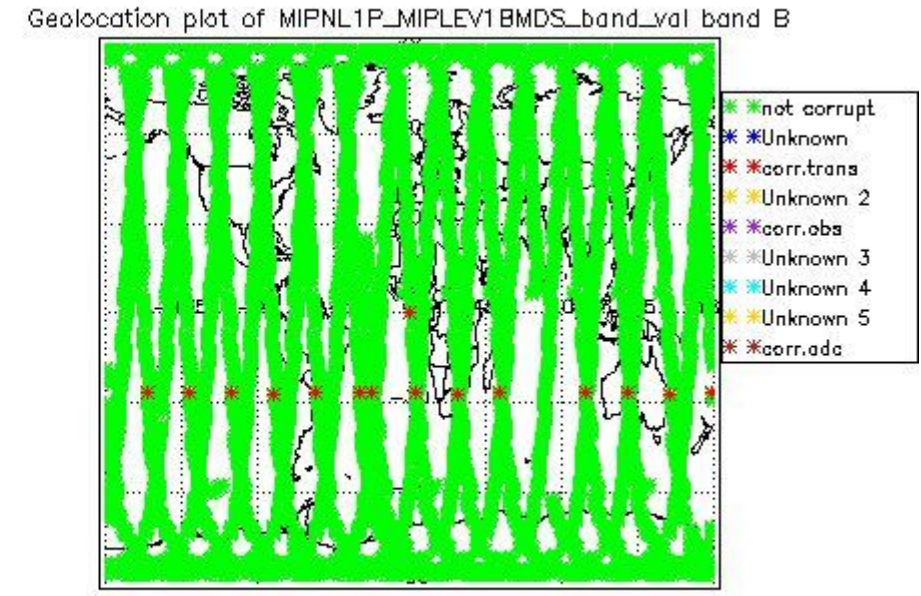
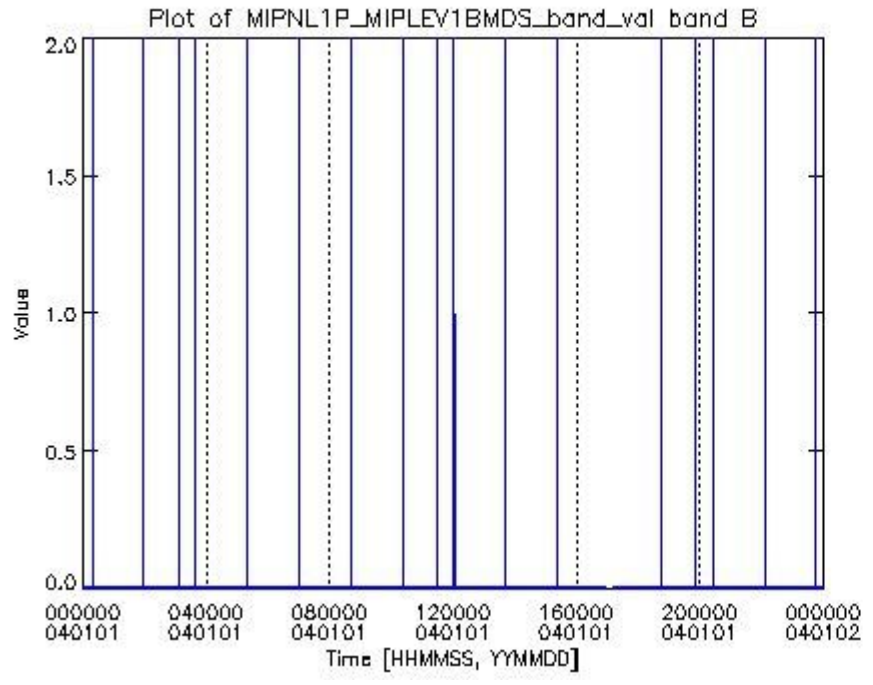
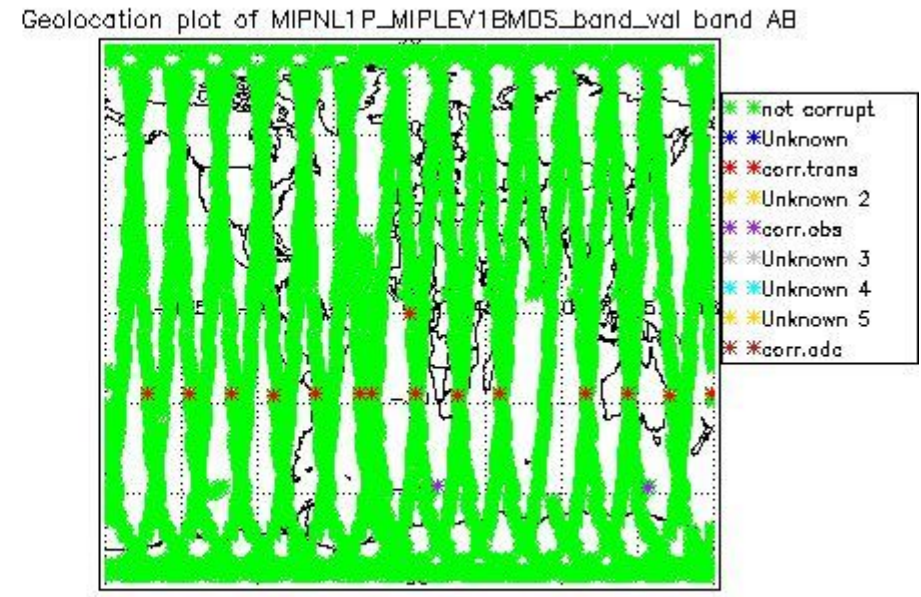
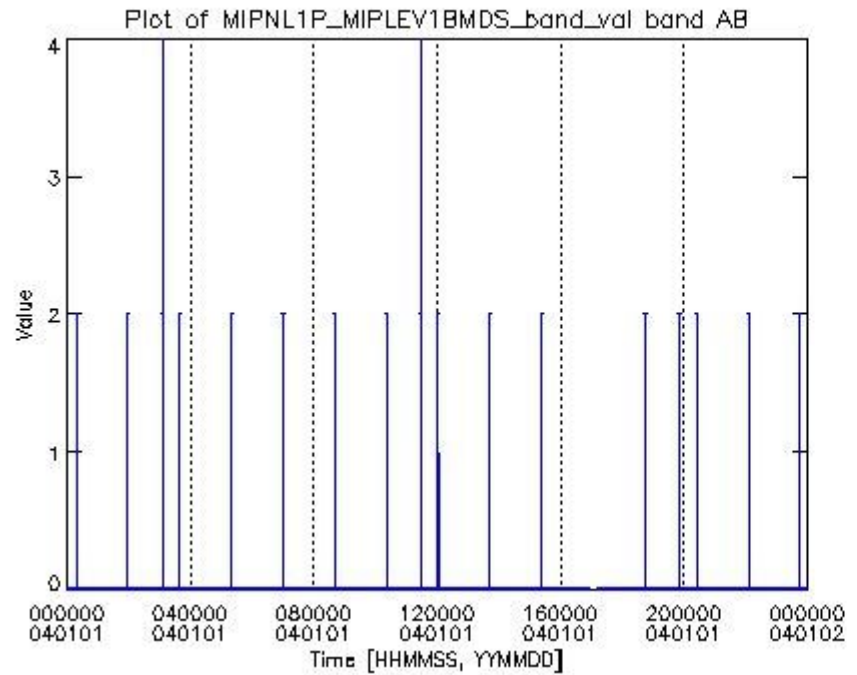


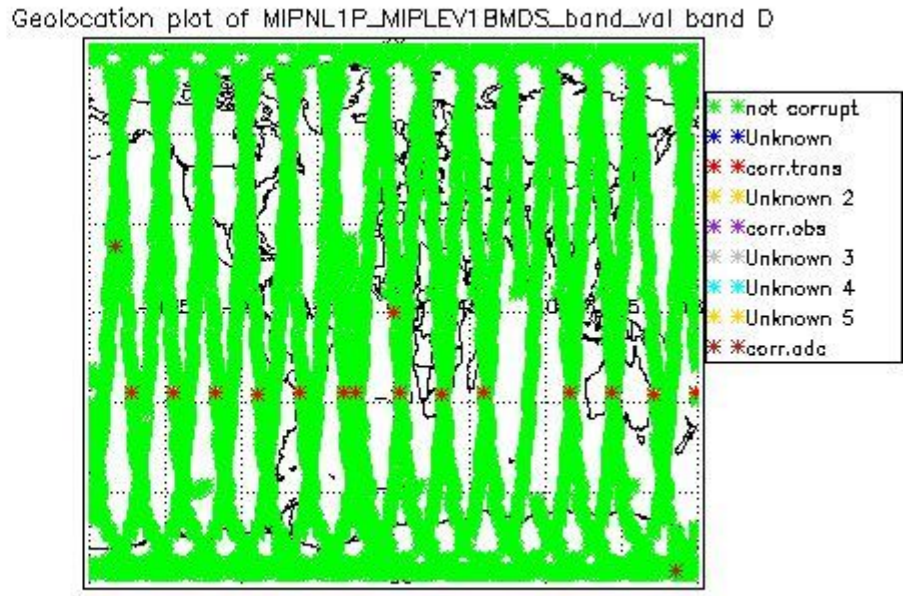
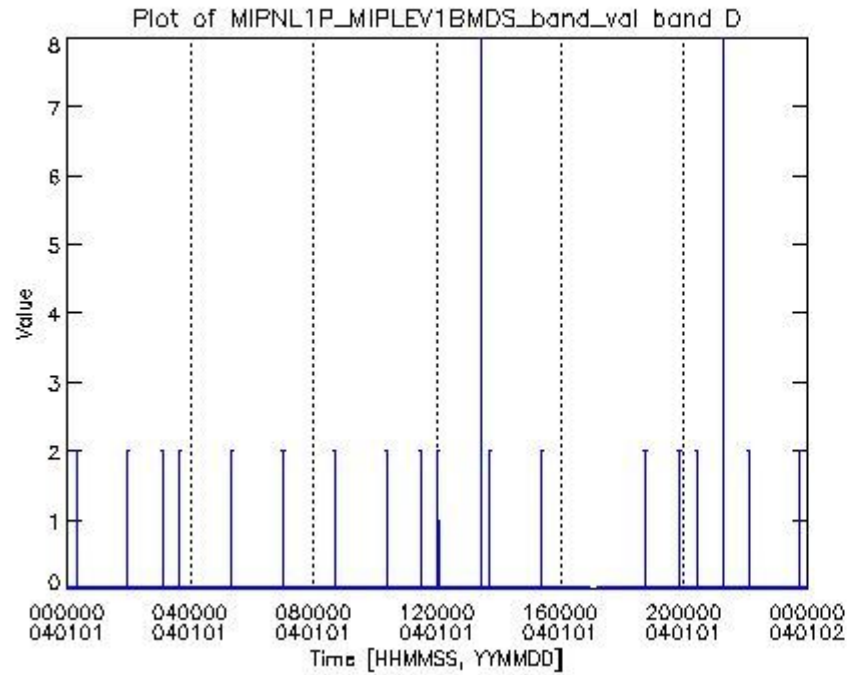
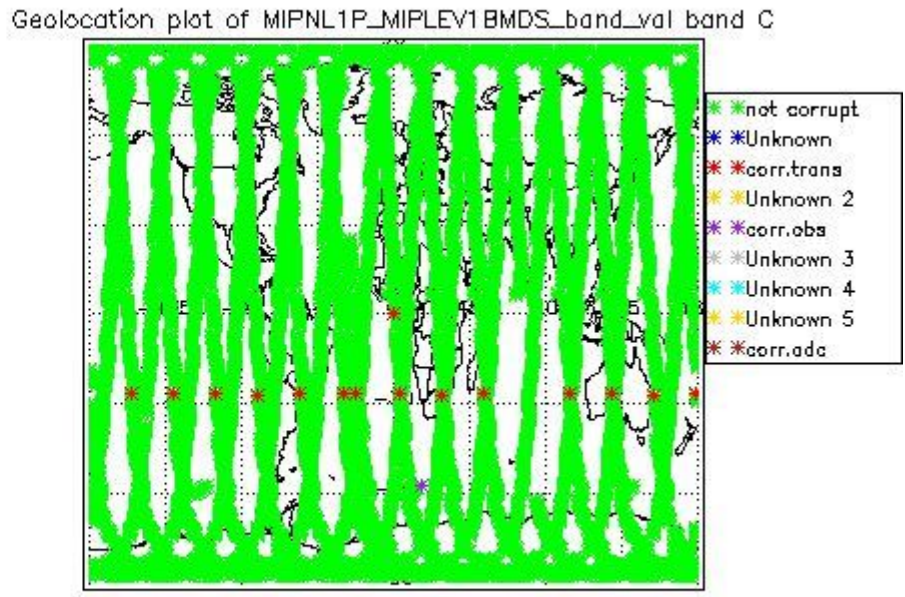
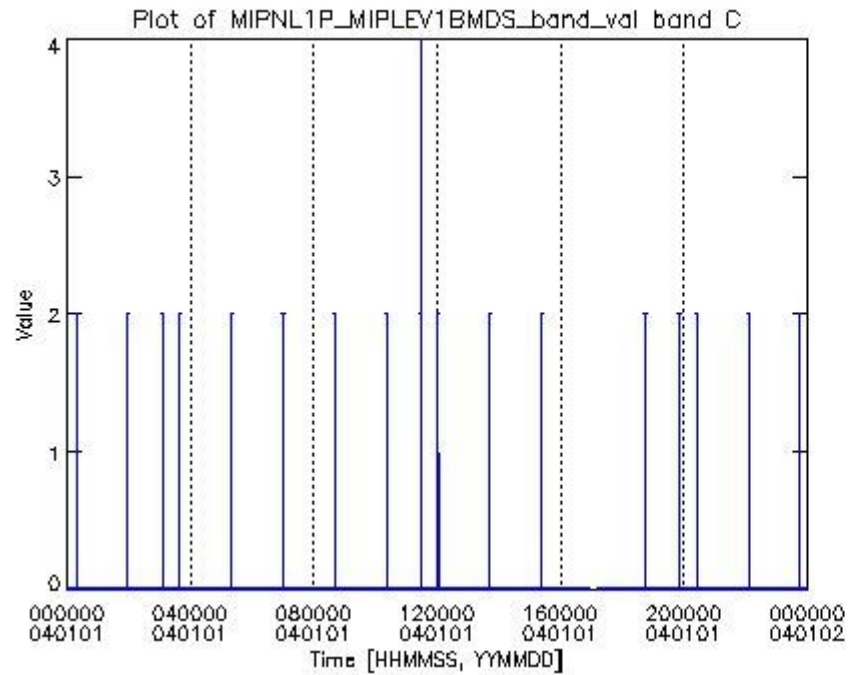




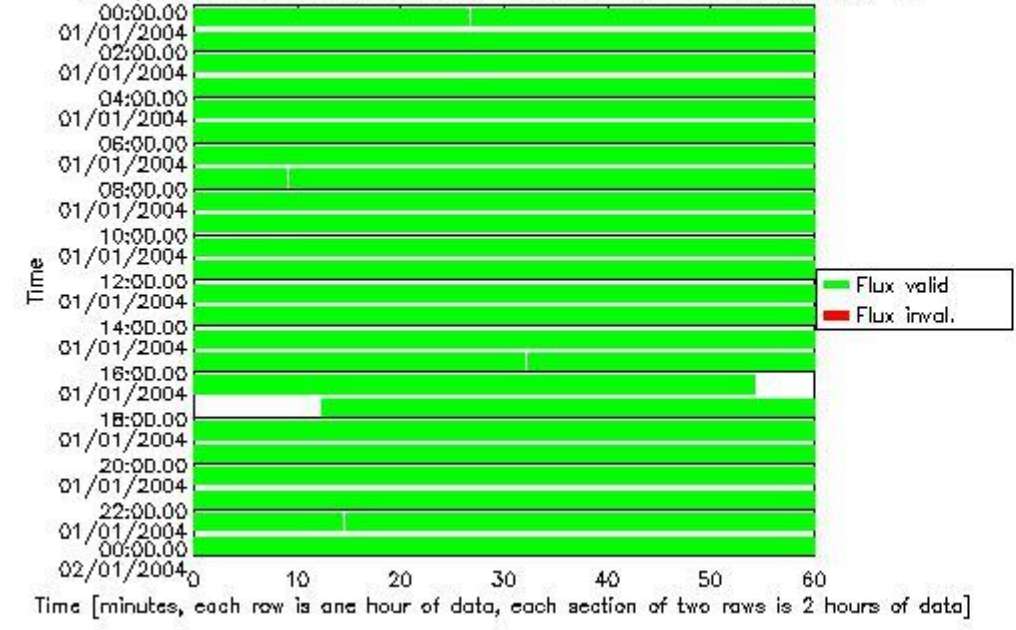




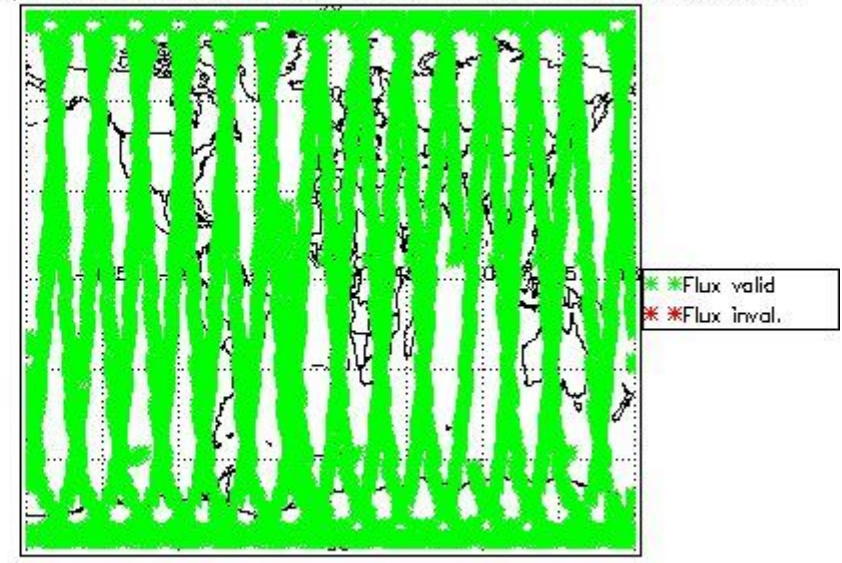




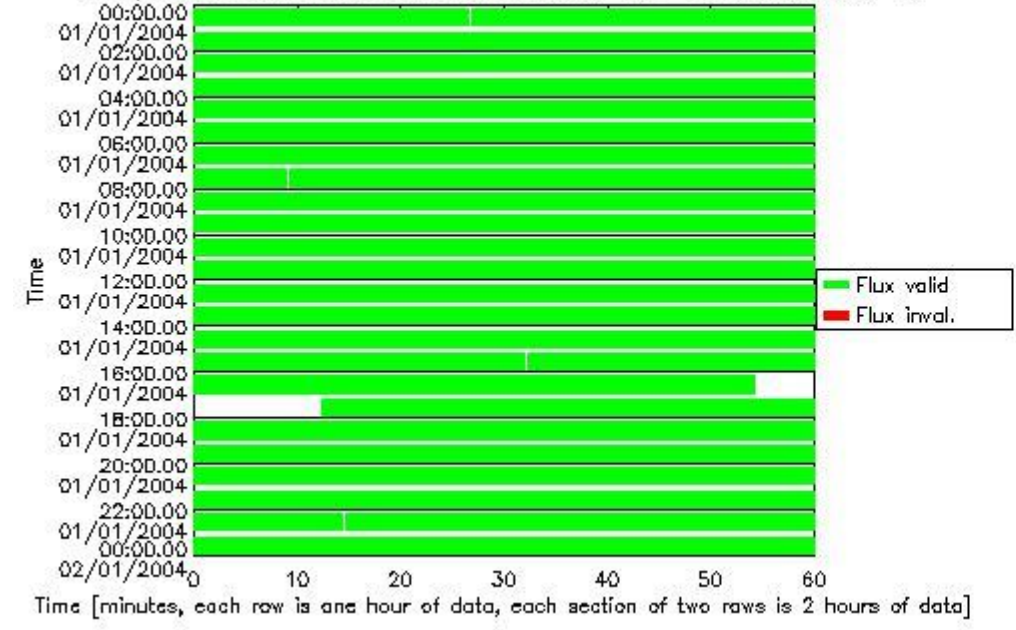
Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A1



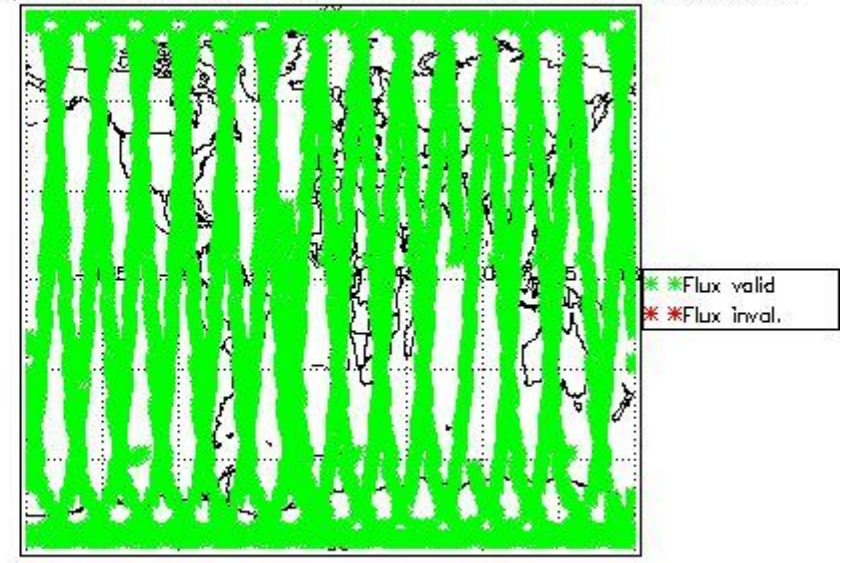
Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A1

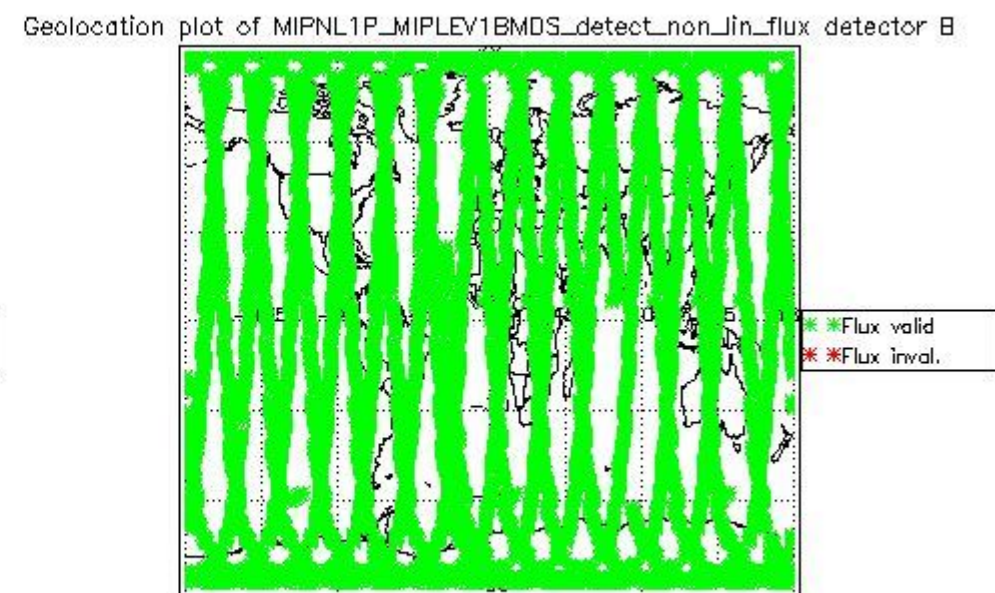
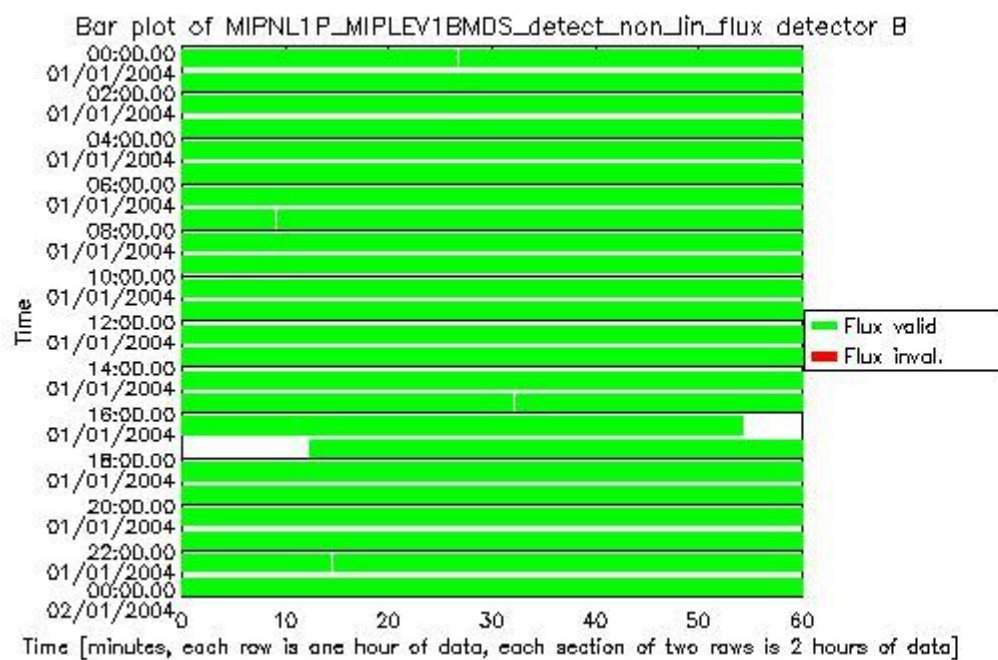
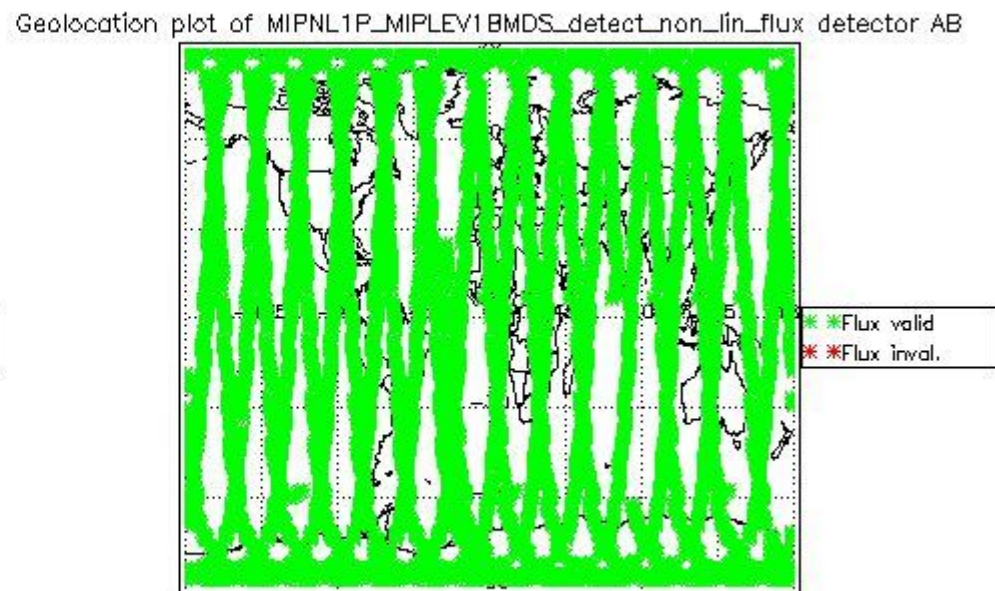
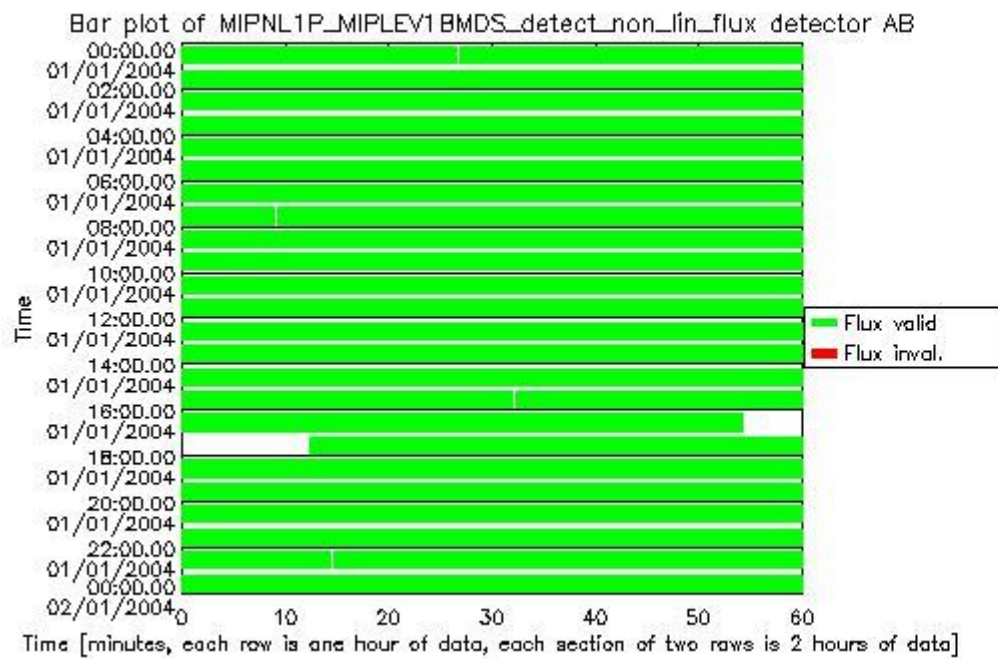


Bar plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A2



Geolocation plot of MIPNL1P_MIPLEV1BMDS_detect_non_lin_flux detector A2





1.2.3 Scan information ADS

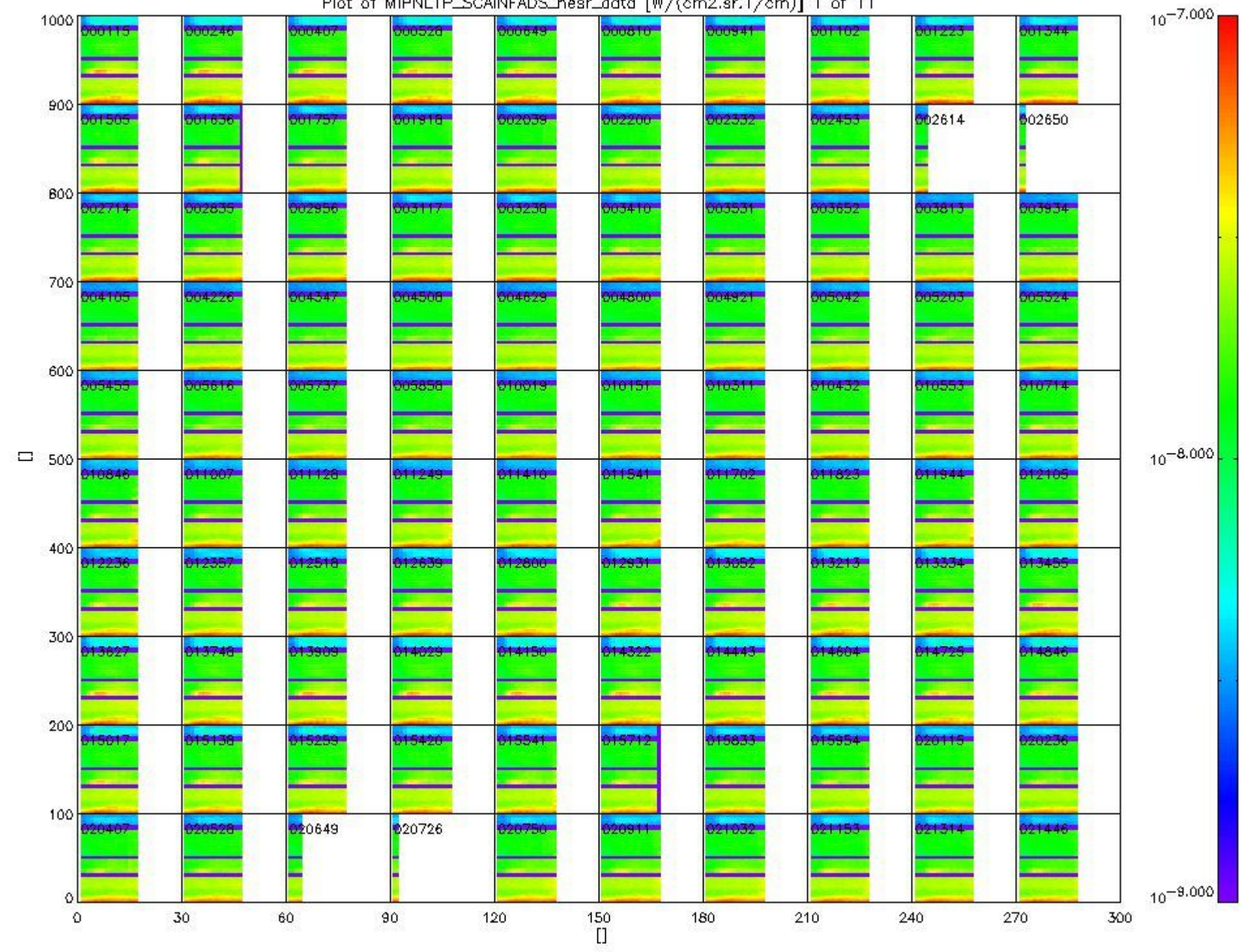
The following plots each contain 100 squares. Each square contains one NESR-scan (from MIPNL1P_SCAINFADS_nesr_data).

The horizontal axis represents the sweep ID (starts at 1).

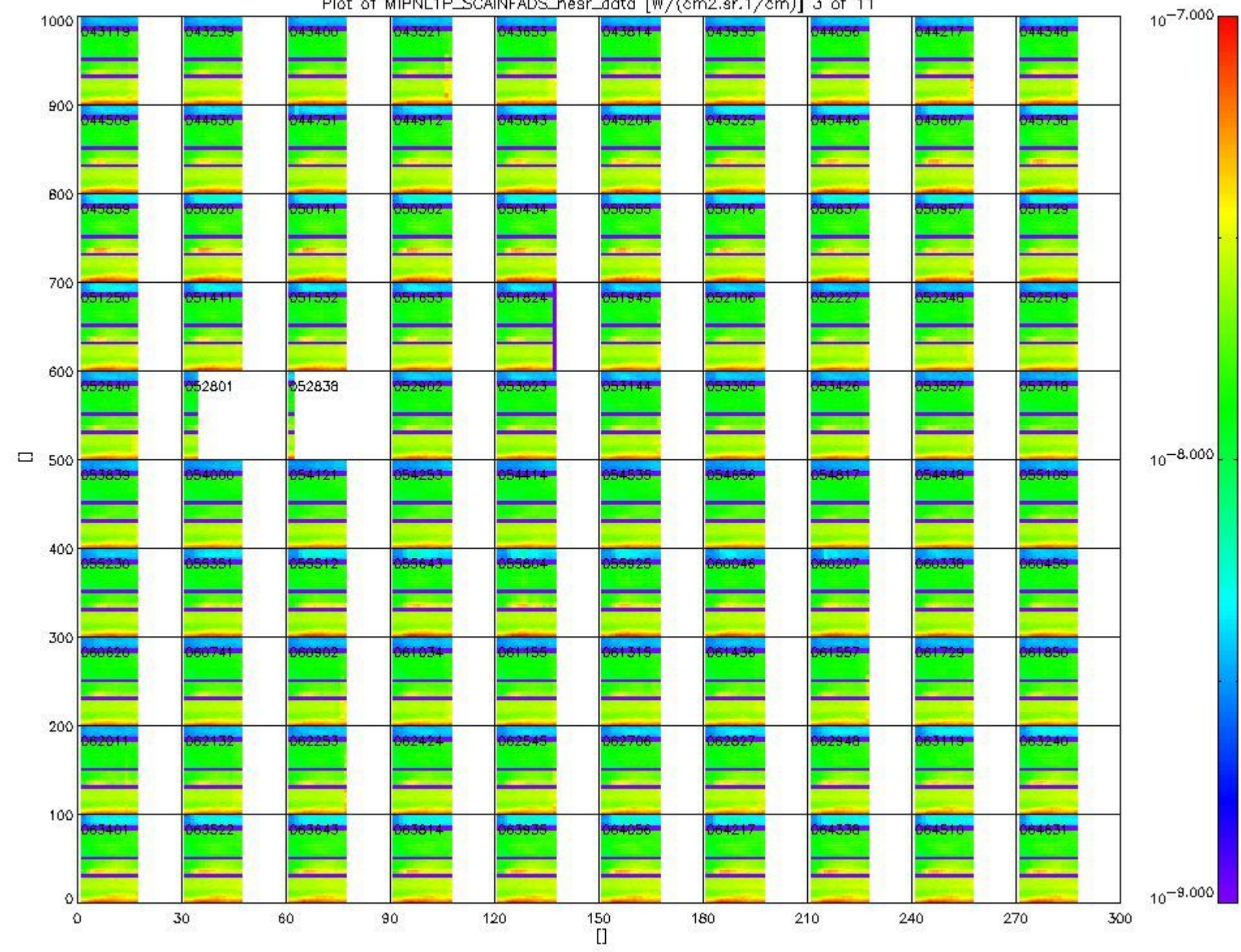
The vertical axis shows the NESR data point index (starts at 0), which relates to wavenumber.

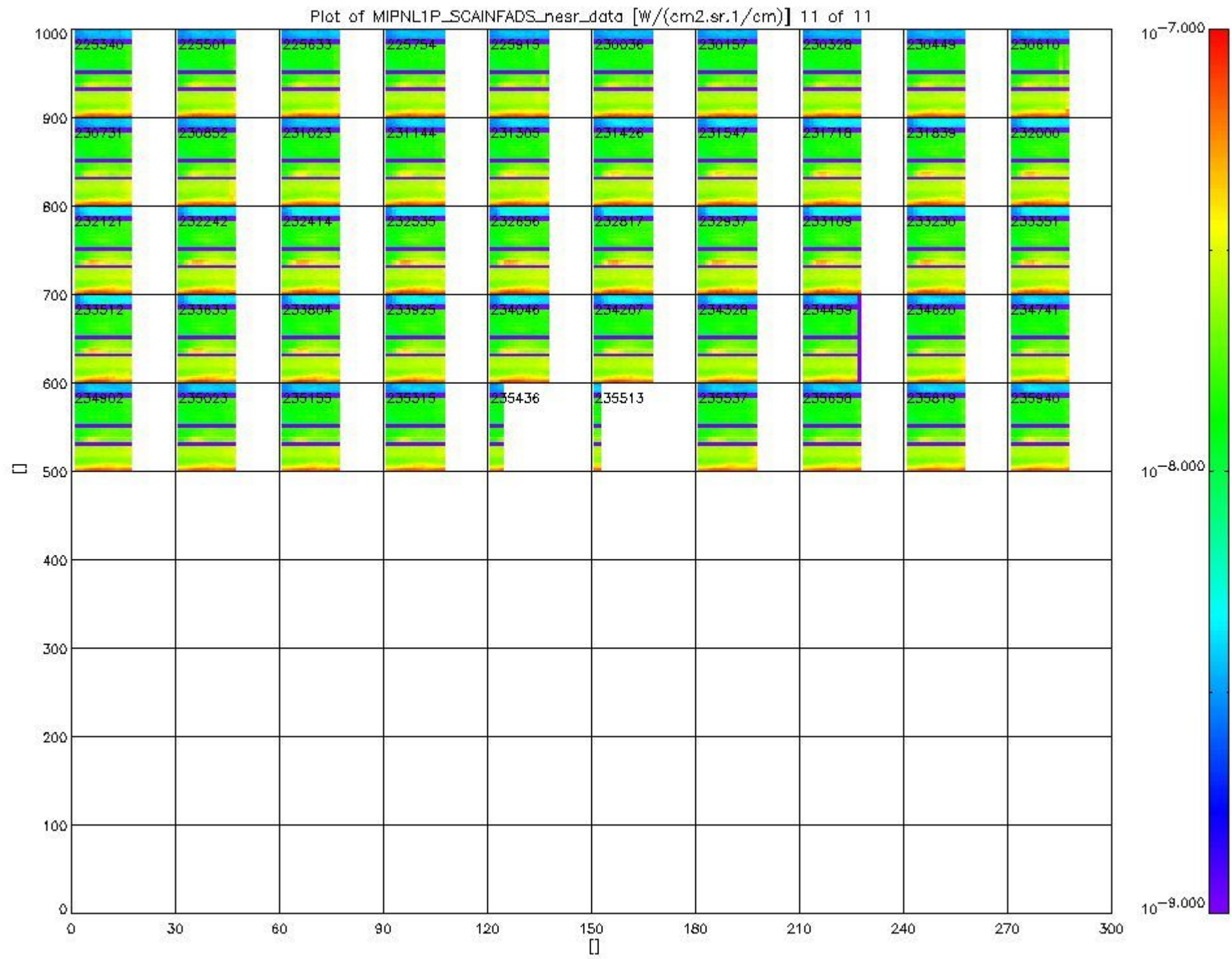
The data values themselves are indicated by colours (as indicated on the right of the plot). Please refer to the plot header for data units.

Plot of MIPNL1P_SCAINFADS_nesr_data [W/(cm2.sr.1/cm)] 1 of 11



Plot of MIPNL1P_SCAINFADS_near_data [W/(cm2.sr.1/cm)] 3 of 11

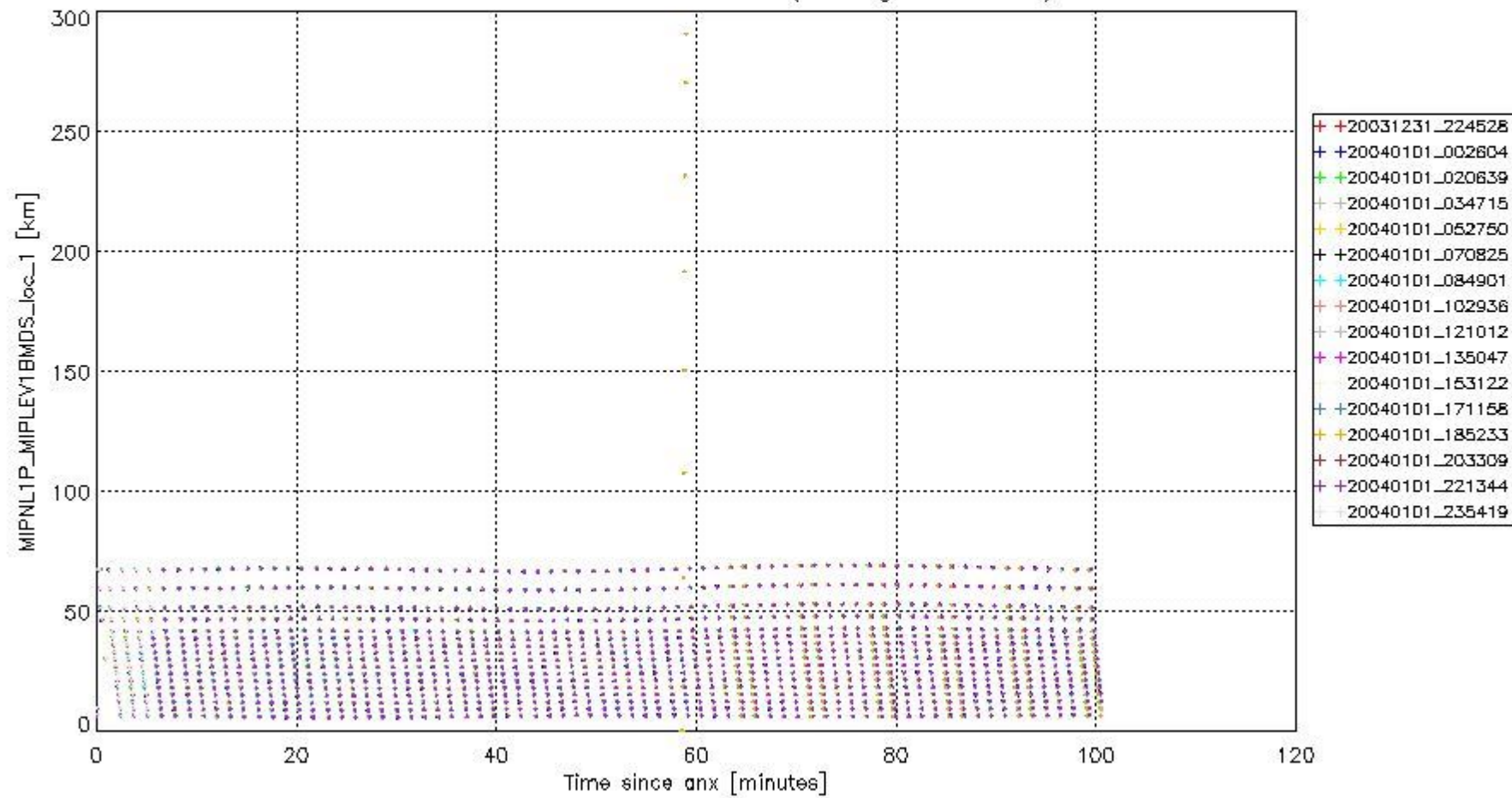




1.3 Physical Quality Indicators

1.3.1 Tangent altitude

Plot of MIPNL1P_MIPLEV1BMDS_Joc_1 against relative time within orbit.
The colours indicate distinct orbits (see legend for anx).



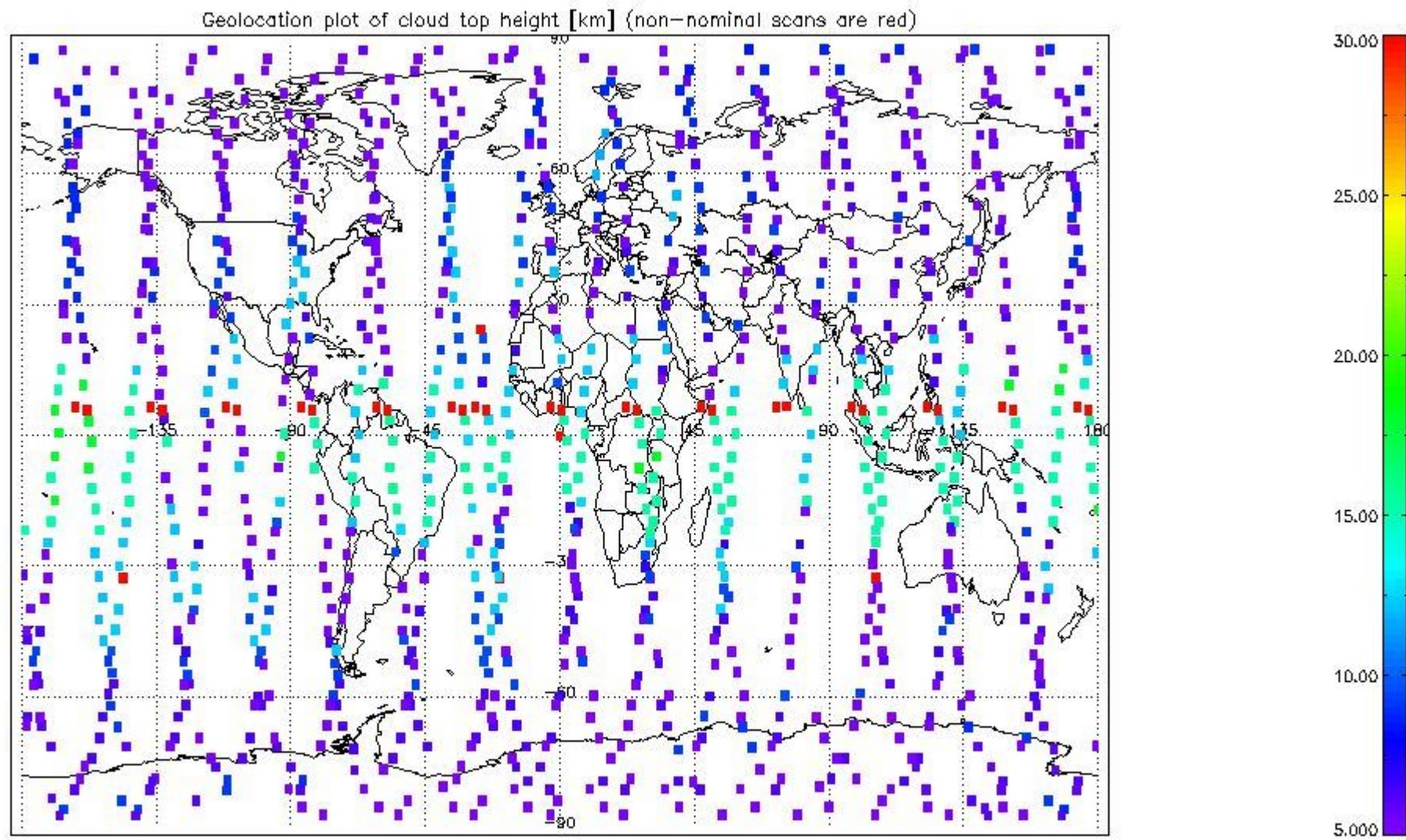
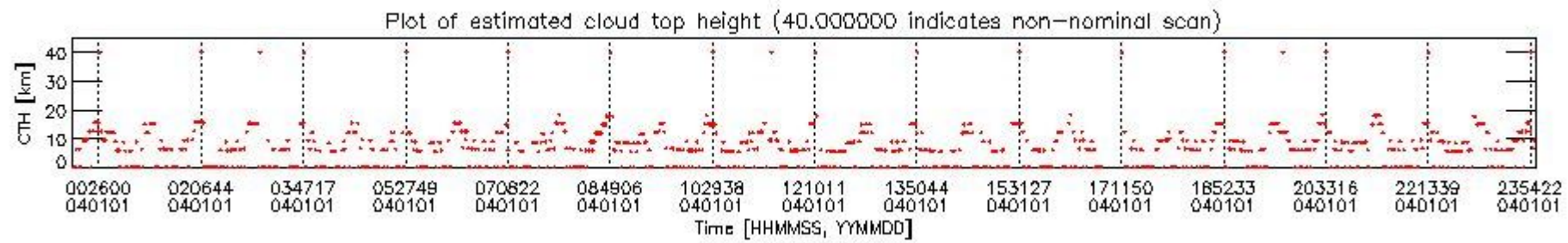
1.3.2 Cloud top height

The following plots show an estimation of cloud top height, based on the ratio of two microwindows. Reference: R. Spang, J.J. Remedios and M.P. Barkley, "Colour indices for the detection and differentiation of cloud types in infra-red limb emission spectra", Adv Space Res, 33:1041-1047, (2004)

The non-nominal scans mentioned in the plots are scans that are rejected by the cloud top height algorithm for several reasons:

- Unconsidered instrument mode. The algorithm only considers nominal (39169) and special event (39172) instrument modes.
- Incomplete scan (missing sweeps)
- Special measurement modes that do not include the troposphere.

Item	Value
Microwindow 1 description	Average of band A pixels for cloud top detection 1
Microwindow 2 description	Average of band A pixels cloud top detection 2
cloud index threshold (mw1/mw2)	1.8000000
Tangent height limit	40.000000

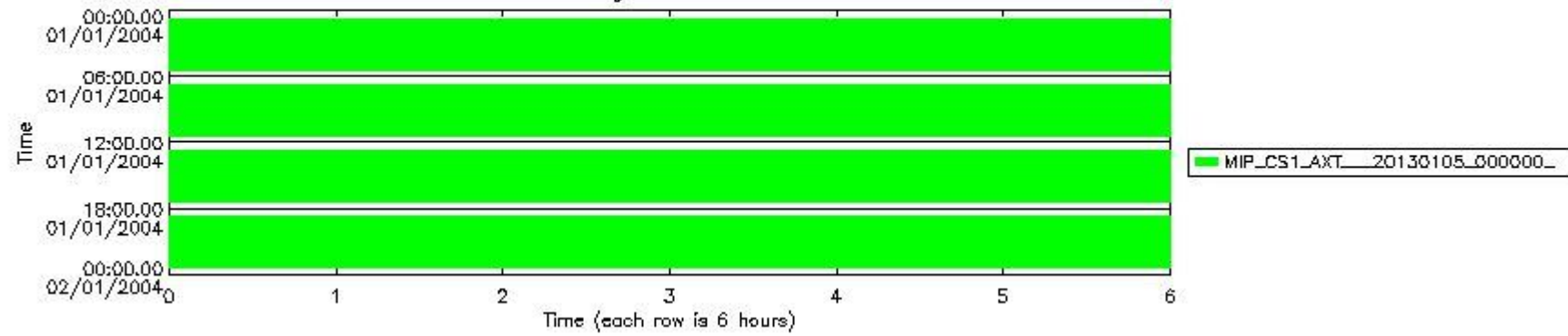


1.4 ADF monitoring

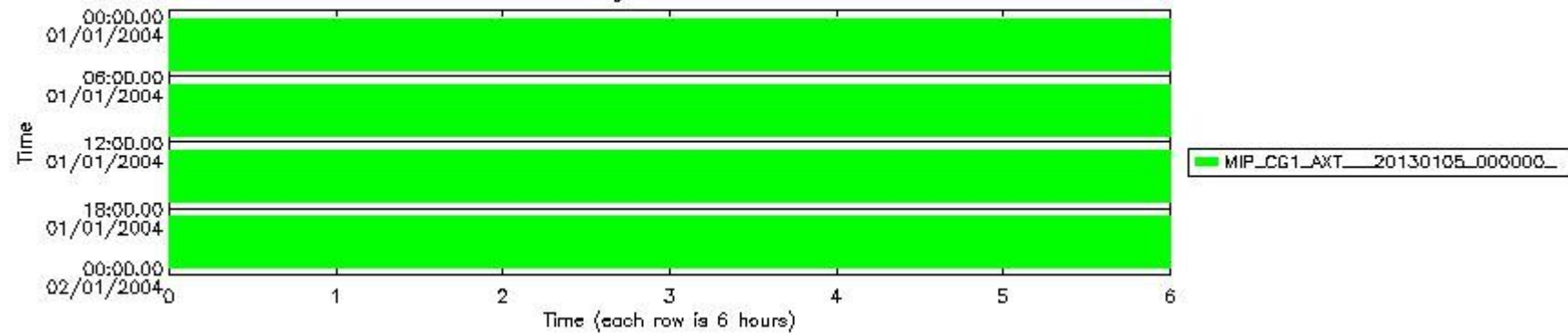
Number	ADF
0	AUX_FRA_AXVFOS20070125_171051_20031231_000000_20040102_000000
1	AUX_FRA_AXVFOS20070125_171051_20040101_000000_20040103_000000
2	DOR_VOR_AXVF-P20120424_120200_20031231_215528_20040102_002328
3	DOR_VOR_AXVF-P20120424_120200_20040101_215528_20040103_002328
4	MIP_CA1_AXT_20130105_000000_20031229_000000_20040129_000000
5	MIP_CG1_AXT_20130105_000000_20031229_000000_20040129_000000
6	MIP_CL1_AXT_20080729_075920_20020401_000000_20161214_000000
7	MIP_CO1_AXT_20130105_000000_20031229_000000_20040129_000000
8	MIP_CS1_AXT_20130105_000000_20031229_000000_20040129_000000
9	MIP_MW1_AXT_20120105_091859_20020401_000000_20161214_000000
10	MIP_PS1_AXT_20130718_095609_20031210_000000_20040809_000000

Number	Product name	#CS1	#CG1	#CL1	#CA1	#CO1	#MW1	#PS1	#FPO	#FRA
0	MIP_NL__1PWDSI20031231_223721_000060272023_00030_09603_0000.N1	8	5	6	4	7	9	10	2	0
1	MIP_NL__1PWDSI20040101_001757_000060272023_00031_09604_0000.N1	8	5	6	4	7	9	10	2	1
2	MIP_NL__1PWDSI20040101_015833_000060162023_00032_09605_0000.N1	8	5	6	4	7	9	10	2	1
3	MIP_NL__1PWDSI20040101_033858_000060382023_00033_09606_0000.N1	8	5	6	4	7	9	10	2	1
4	MIP_NL__1PWDSI20040101_051945_000060272023_00034_09607_0000.N1	8	5	6	4	7	9	10	2	1
5	MIP_NL__1PWDSI20040101_070021_000060272023_00035_09608_0000.N1	8	5	6	4	7	9	10	2	1
6	MIP_NL__1PWDSI20040101_084057_000060272023_00036_09609_0000.N1	8	5	6	4	7	9	10	2	1
7	MIP_NL__1PWDSI20040101_102133_000060162023_00037_09610_0000.N1	8	5	6	4	7	9	10	2	1
8	MIP_NL__1PWDSI20040101_120158_000060382023_00038_09611_0000.N1	8	5	6	4	7	9	10	2	1
9	MIP_NL__1PWDSI20040101_134245_000060272023_00039_09612_0000.N1	8	5	6	4	7	9	10	2	1
10	MIP_NL__1PWDSI20040101_152321_000054392023_00040_09613_0000.N1	8	5	6	4	7	9	10	2	1
11	MIP_NL__1PWDSI20040101_171227_000055162023_00041_09614_0000.N1	8	5	6	4	7	9	10	2	1
12	MIP_NL__1PWDSI20040101_184432_000060162023_00042_09615_0000.N1	8	5	6	4	7	9	10	2	1
13	MIP_NL__1PWDSI20040101_202457_000060382023_00043_09616_0000.N1	8	5	6	4	7	9	10	2	1
14	MIP_NL__1PWDSI20040101_220544_000060272023_00044_09617_0000.N1	8	5	6	4	7	9	10	3	1
15	MIP_NL__1PWDSI20040101_234620_000060272023_00045_09618_0000.N1	8	5	6	4	7	9	10	3	1

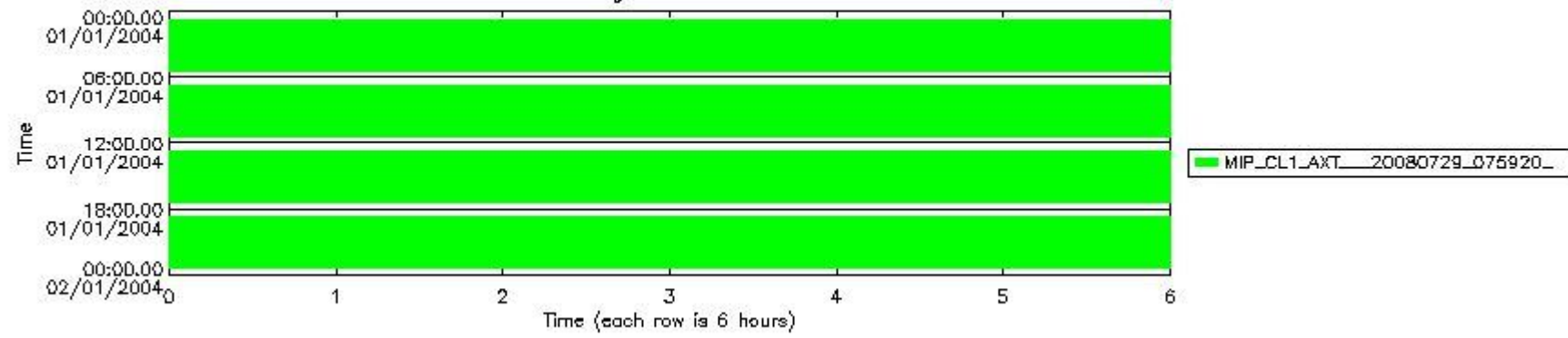
Bar plot of ADFs used for ILS&SPECTRAL CAL FILE.
See legend for details.



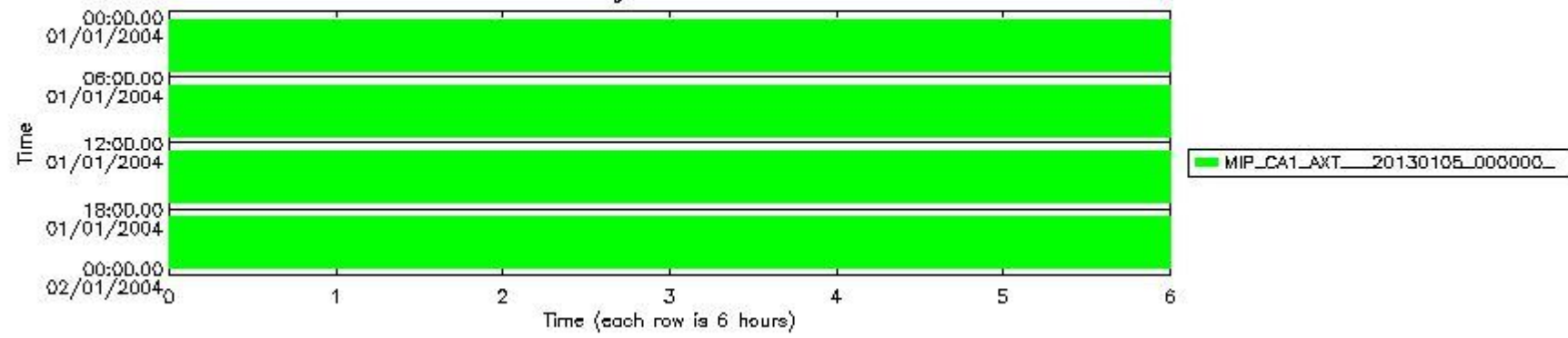
Bar plot of ADFs used for GAIN CALIBRATION FILE.
See legend for details.



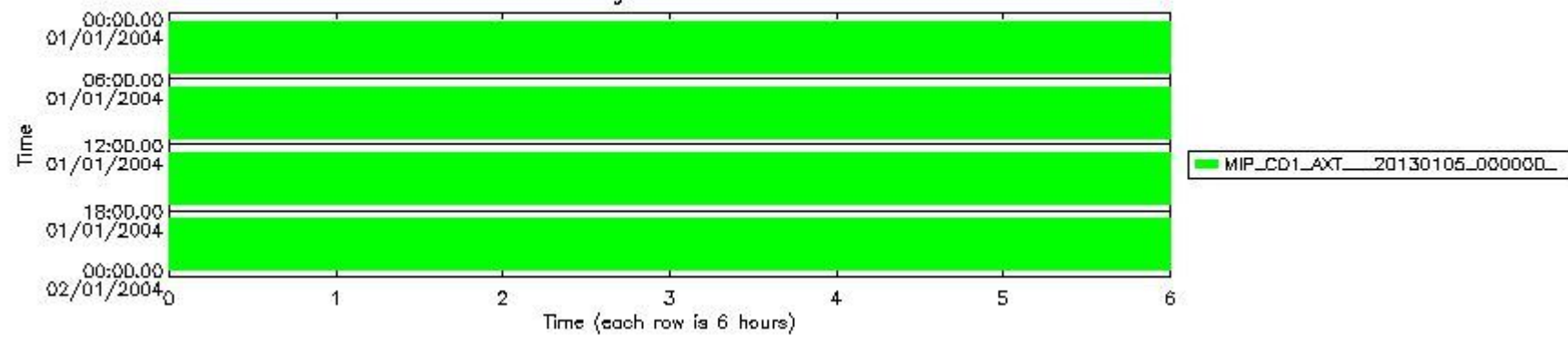
Bar plot of ADFs used for LINE OF SIGHT FILE.
See legend for details.



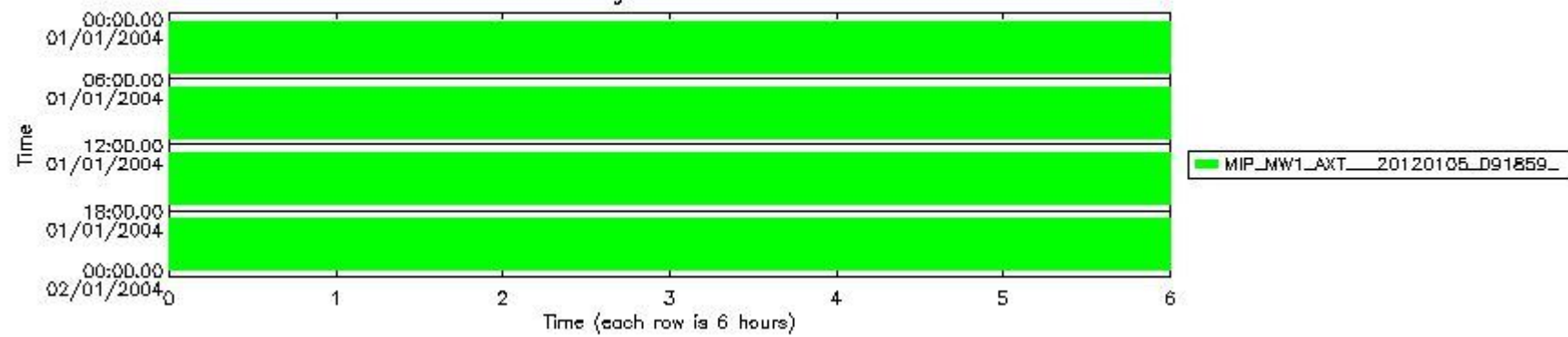
Bar plot of ADFs used for INSTRUMENT CHAR FILE.
See legend for details.



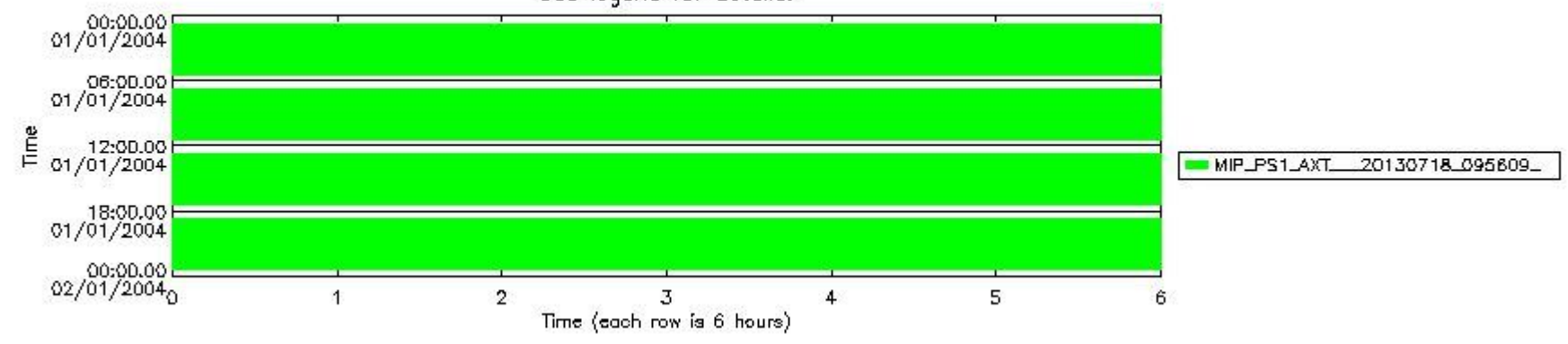
Bar plot of ADFs used for OFFSET VALIDATION FILE.
See legend for details.



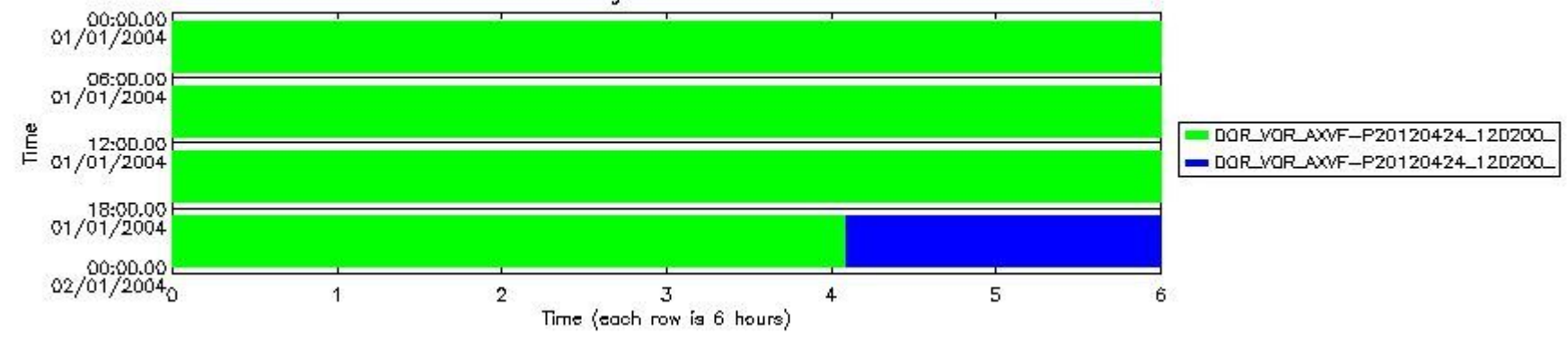
Bar plot of ADFs used for MICROWINDOWS FILE.
See legend for details.



Bar plot of ADFs used for PROCESS PARAMETERS FILE.
See legend for details.



Bar plot of ADFs used for ORBIT DATA FILE.
See legend for details.



Bar plot of ADFs used for RESTITUTED ATTITUDE FILE.
See legend for details.

